



PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
A Company setup under Section 42 of the Companies Ordinance, 1984 (now Companies Act, 2017)



PIE/QABP/NEPRA- 2524
October 24, 2022

To,

The Registrar, NEPRA
NEPRA Tower,
Attaturk Avenue (East), Sector G-5/1, Islamabad.

Subject:

**APPLICATION FOR ELECTRIC POWER SUPPLY LICENSE FOR
PUNJAB INDUSTRIAL ESTATE DEVELOPMENT AND MANAGEMENT
COMPANY (PIEDMC) OWNED BY GOVT.OF PUNJAB AT QUAID-E-
AZAM BUSINESS PARK SHEIKHUPURA.**

Reference: NEPRA letter no. NEPRA/DG(Lic)/LAD-11/1583 Dated January 27, 2022, copy attached as annexure- A.

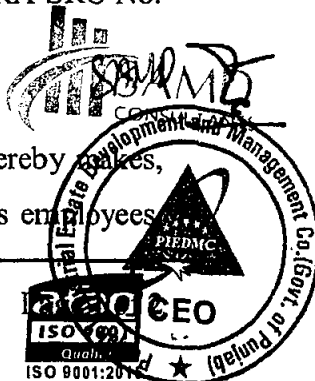
Dear Sir,

The Chief Executive Officer being duly authorized representative of Punjab Industrial Estates Development and Management Company (PIEDMC), by virtue of power of Attorney / Board Resolution as stipulated in its 134th BOD Meeting dated 4th May 2019, to apply to National Electric Power Regulatory Authority, Islamabad, for the grant of Electric Power Supply License to the Punjab Industrial Estates Development and Management Company (PIEDMC) Govt. of Punjab at its Quaid-e-Azam Business Park, Sheikhpura.

In continuation to the aforementioned NEPRA letter. Please find the attached application as per NEPRA Licensing Procedures Regulations, 2021 (AMECPR-2021) as notified vide SRO No. 760(I)/2021, on December 21, 2021, for obtaining the Electric Power Supply License for the Punjab Industrial Estates Development and Management Company (PIEDMC), at its industrial estate located in Sheikhpura, Punjab.

A Pay Order in the sum of Rs.2,312,185/- being the 'Non-refundable License Applicant Fee calculated in accordance with schedule II and PART I as per NEPRA SRO No. 760(I)/2021 is also attached here with this application.

Moreover, PIEDMC (hereinafter the Applicant), vide this application hereby constitutes, ordains, nominates and appoints M/s SAMD Consultants and all its employees

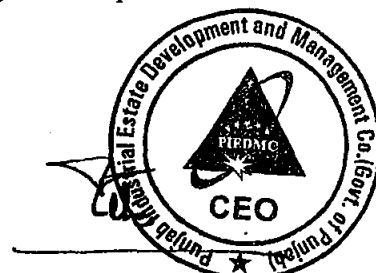


agents and relevant persons (hereinafter referred to as the "Authorized Representatives/ Authorized Agents"), to act under our authority and on our behalf, and to do or execute or to represent, institute, or file applications, documents, attend hearings, remove objections, make statements, give evidence, affidavits on behalf of the Applicant, or to act in any legal capacity to pursue the attached application;

The application may please be processed at your end for the early issuance of Electric Power Supply License for PIEDMC at its Quaid-e-Azam Business Park, Sheikhpura.

Thanking you and best regards.

DA/As above:



(ALI MUAZZAM SYED)
CHIEF EXECUTIVE OFFICER

Copy to:-

1. The Chairman, PIEDMC.
2. The Chairman, NEPRA.
3. The Director General Licensing, NEPRA.
4. The Director General CAD, NEPRA.
5. The General Manager Technical, PIEDMC.
6. The General Manager Coordination, PIEDMC.
7. The General Manager Business & Development, PIEDMC.
8. The Chief Financial Officer, PIEDMC.
9. The Chief Engineer Electrical, PIEDMC.
10. The Company Secretary (Acting), PIEDMC.
11. The Project Director, QABP.
12. The Director, SAMD Consultants.



Punjab Industrial Estate Development & Management Company

Application of Electric Power Supply License for Quaid-e-Azam Business Park (QABP)

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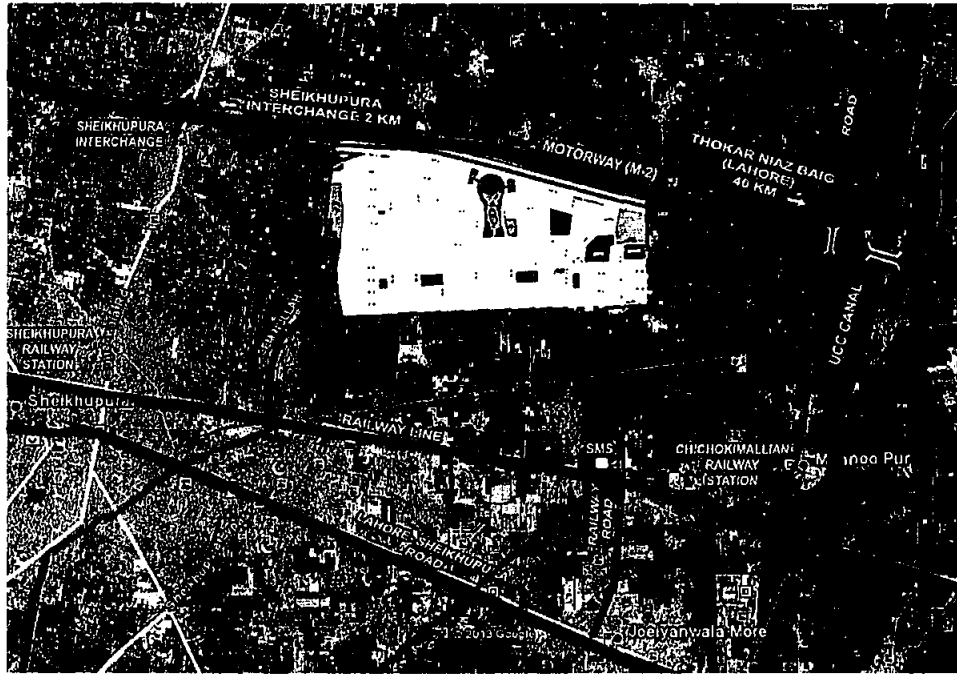
PROSPECTUS



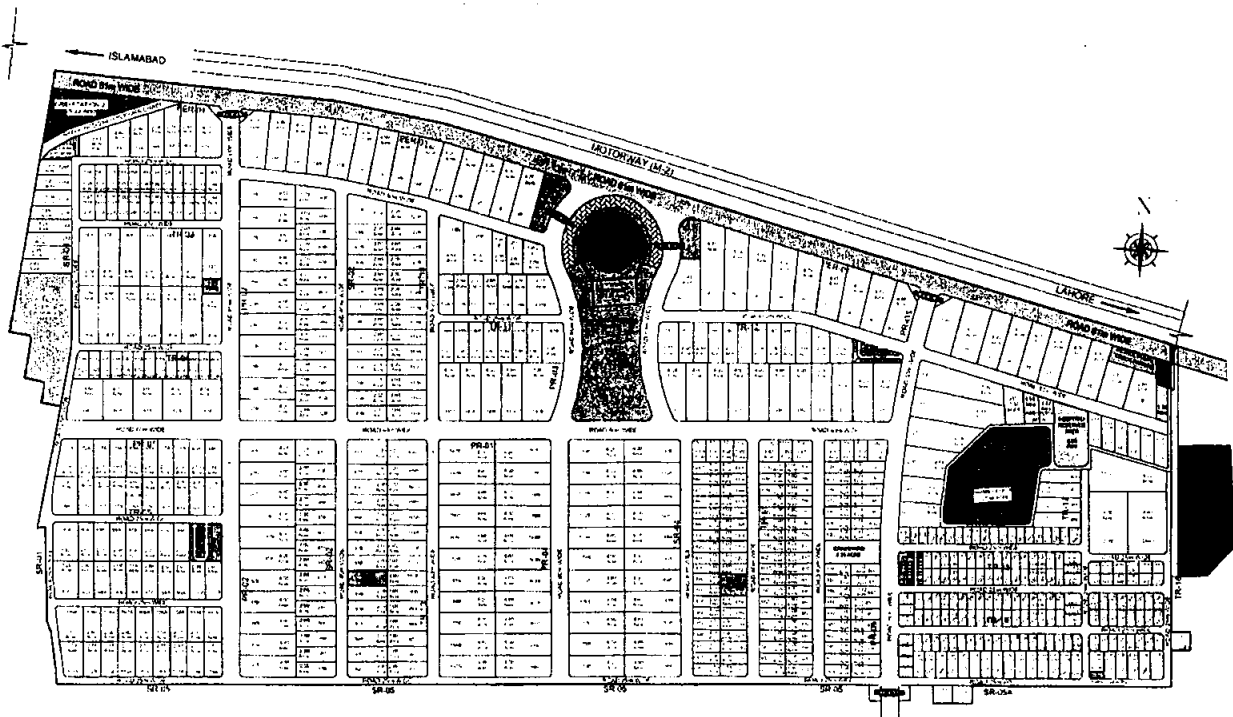
Quaid-e-Azam Business Park



LOCATION MAP



MASTER PLAN





Quaid-e-Azam Business Park



Quaid-e-Azam Business Park is ideally located on Lahore-Islamabad Motorway M2 at Sheikhpura, the project is linked to all major cities, seaports and dry ports of the country through a network of National Highways and Motorways.

This landmark project is spread over 1860 acres of land. The Park is privileged to have a dedicated Motorway Interchange at its doorstep. Additionally, 200 acres have been dedicated for a Labour Colony that will provide accommodation facility to 30,000 project workers.

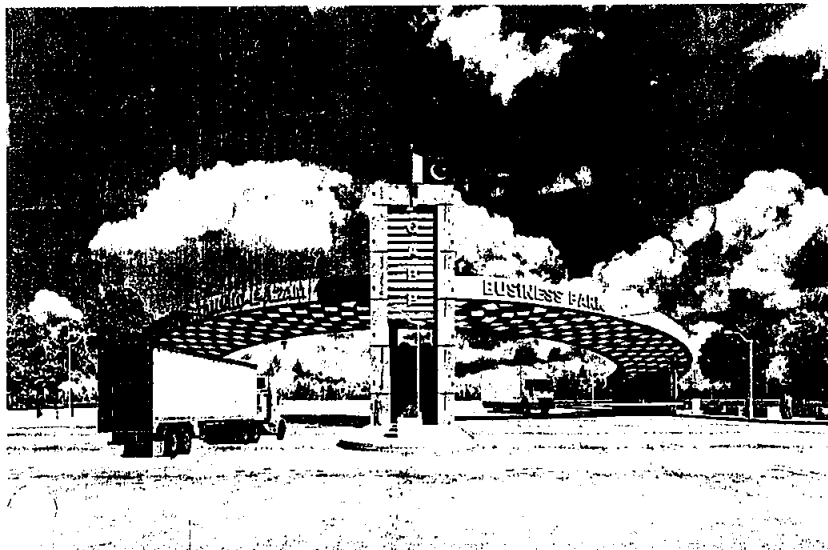
Quaid-e-Azam Business Park, after completion, will have the capacity to generate 500,000 new jobs for skilled and unskilled workers along with empowering a skilled women workforce.

TOTAL AREA

1860

PLANNED FACILITIES

- Dedicated Interchange on M2
- State-of-the-art Infrastructure
- Combined Effluent Treatment Plant
- Multi-purpose Complex
- Technical Education & Training Centre
- Utilities at Doorstep
- Rescue 1122
- Fuel Station
- Government Offices
- Vocational Training Institute



LOCATION

Quaid-e-Azam Business Park is located 40 km from Thokar Niaz Beg, Lahore on Lahore-Islamabad Motorway (M-2).

SPECIAL ECONOMIC ZONE BENEFITS

Federal Government has granted the status of Special Economic Zone (SEZ) to Rahim Yar Khan Industrial Estate which grants it the following benefits:

10 Years Income Tax holiday.
One-time exemption on all duties & taxes on plant and machinery import.

HIGH POTENTIAL SECTOR

- MANUFACTURING
- LIGHT ENGINEERING
- IT & SERVICES
- LOGISTICS
- PHARMACEUTICAL
- PLASTIC INDUSTRY
- ELECTRONICS & MOBILE MANUFACTURING
- AUTO PARTS
- FOOD & BEVERAGES
- CHEMICALS



Scan the QR Code
for more details.



★★★★
PIEDMC



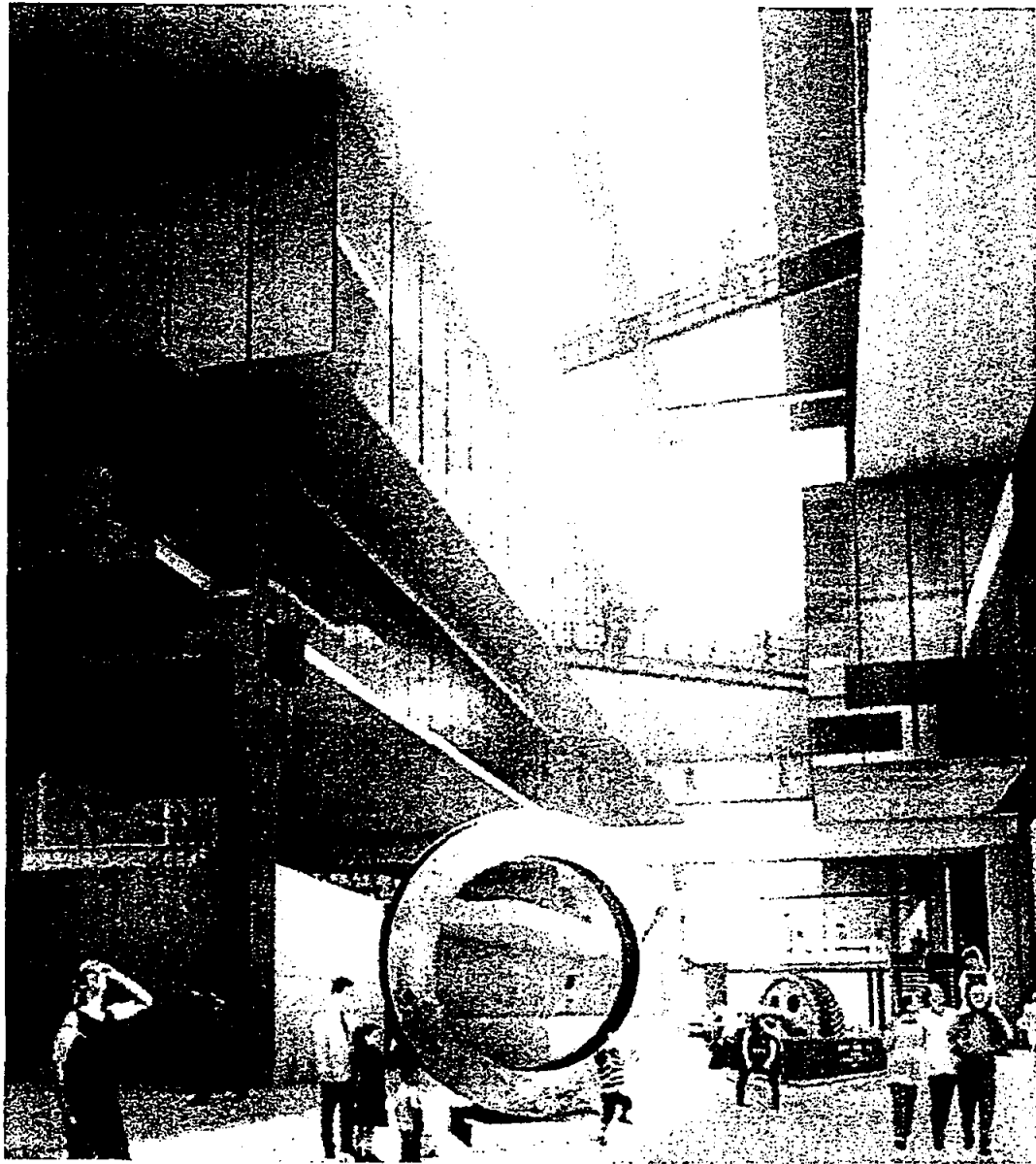
PIEDMC

PUNJAB INDUSTRIAL ESTATES

DEVELOPMENT AND
MANAGEMENT COMPANY



 **SAMD**
CONSULTANTS



PIEDMC

AN ENGINE FOR INDUSTRIAL GROWTH

- Punjab Industrial Estates Development & Management Company (PIEDMC) was formed with the vision to promote industrialization in the province of Punjab.
- Autonomous, not for profit entity owned by Government of Punjab
- Successful example of Public - Private Partnership



MISSION

To develop a chain of industrial estates in a dynamic and innovative manner by capitalizing on proposed & existing industrial and agricultural strengths of Punjab and Pakistan.

VISION

To follow public private partnership model and to bring less developed areas of Punjab into main stream, create jobs, alleviate poverty & contribute to sustainable GDP growth. Also to abide by environmental laws & comply with WTO regime.





ACHIEVEMENTS

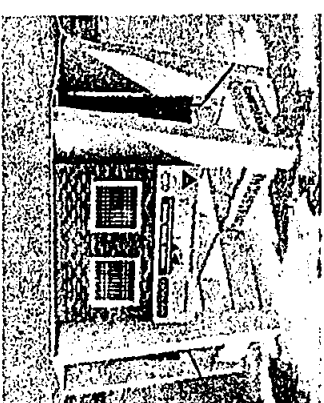
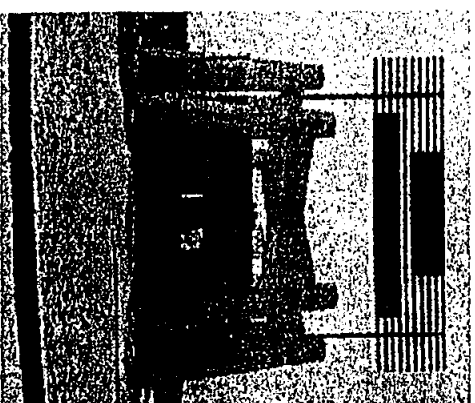
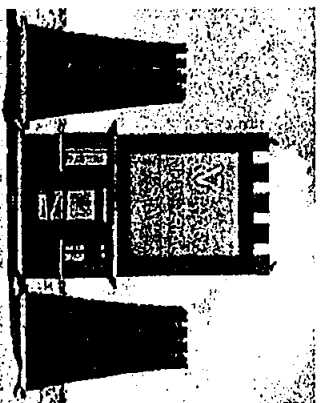
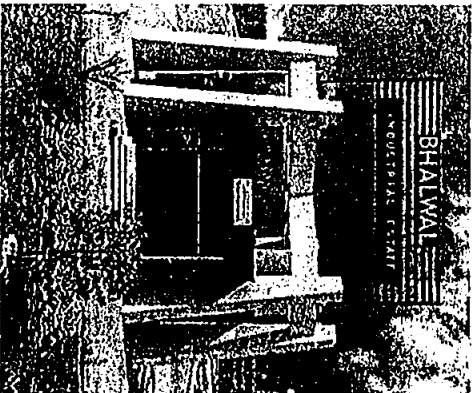
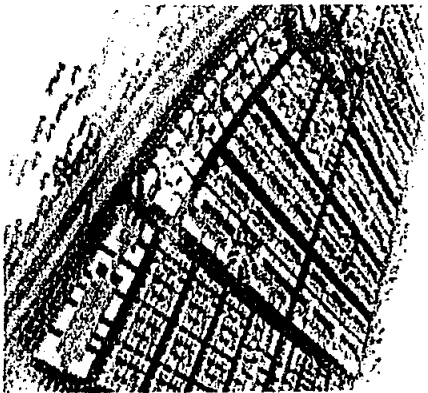
- 5 Estates Developed
- 3 Industrial Estates in development phase
- Up graded infrastructure of 2 Industrial Estates
- 950 Industries in Production Phase
- 353 Industries Under Construction
- More than 840,000 direct employment opportunities generated
- More than 1,680,000 indirect employment opportunities generated (projected)
- Attracted more than 50 billion PKR of Local Investment -1 billion USD of Foreign Investment
- Provided Infrastructural Development of 15,000 acres for Quaid-e-Azam Solar Power Plant (Bahawalpur)
- More then 3 Billion PKR tax contribution per annum



WHY PIEDMC

- Allotment of plot in 15 working days
- One Window Operation
- Provided Infrastructure
- Available Facilities





PROJECTS OF PIEDMC

UPGRADED PROJECTS

- Qaid-e-Azam Industrial Estate Kotlakhpat Lahore (QIE)
- Multan Industrial Estate Phase -I, Multan (MIE-I)

COMPLETED PROJECTS

- Sundar Industrial Estate, Lahore (SIE)
- Multan Industrial Estate Phase -II, Multan (MIE-II)
- Rahim yar Khan Industrial Estate (RIE)
- Bhalwal Industrial Estate (BIE)
- Vehari Industrial Estate (VIE)

ONGOING / PLANNED PROJECTS

- Qaid-e-Azam Business Park (QAABP)
- Bahawalpur Industrial Estate (BWPIE)
- Chunian Industrial Estate (CIE)

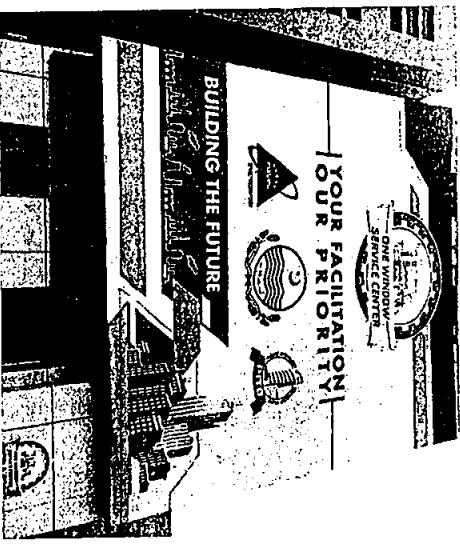
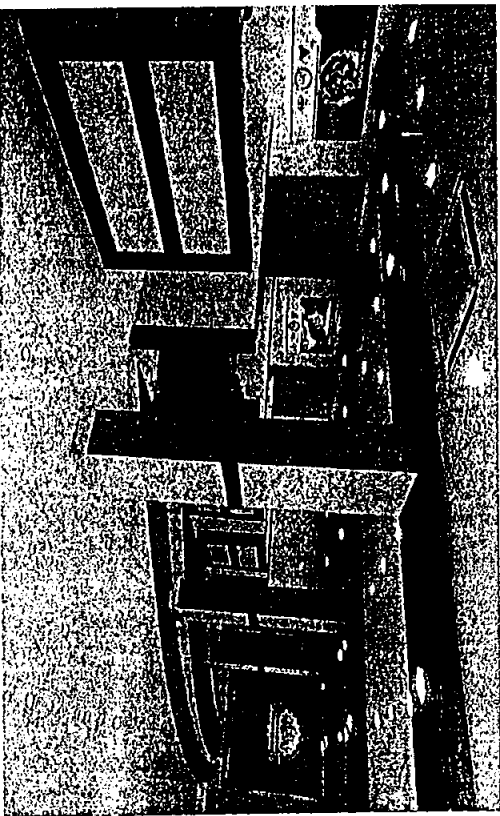
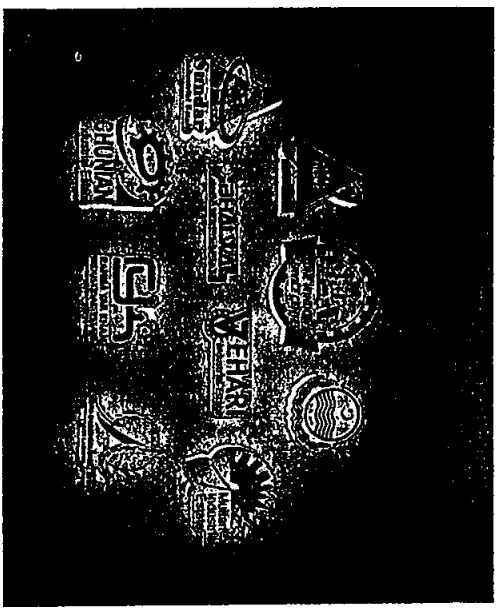
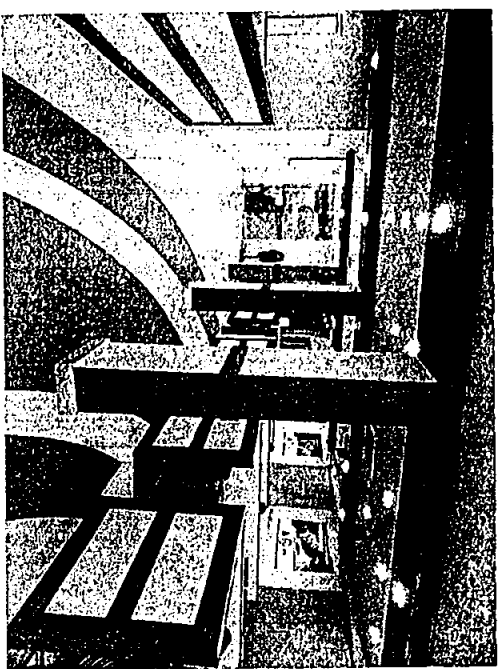
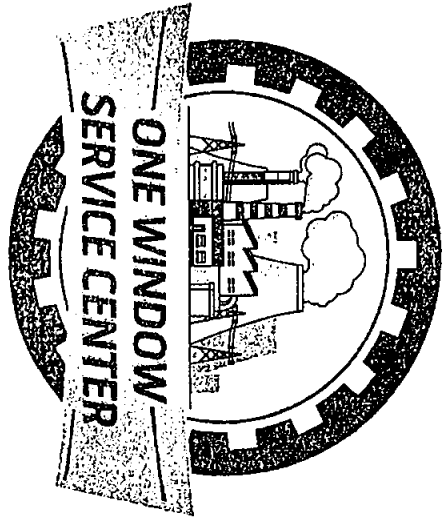
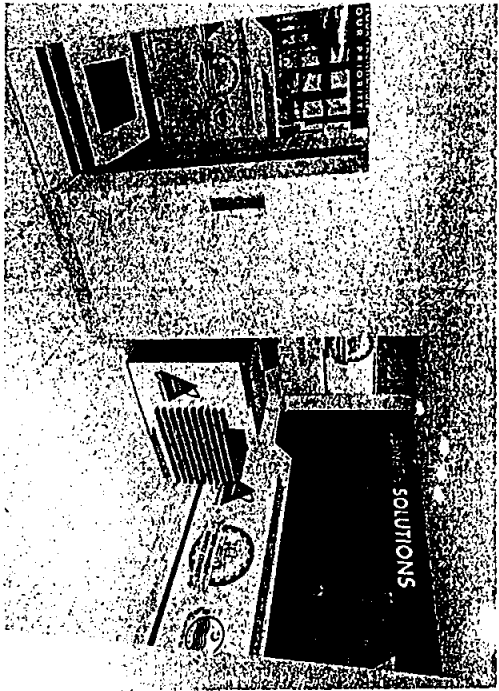
ONE WINDOW SERVICE CENTER (OWSC)

PIEDMC, for efficient and timely delivery of customer's requirements from land acquisition to start of production has established one of its kind One Window Facilitation Center at Quaid-E-Azam Industrial Estate .

The center provides following services under one roof:

- Allotment of Land
- Electricity Connection
- Water Connection
- Environmental Approval (Assistance)
- Construction Plan / Building Approval
- Change of Nature of Business
- Transfer of Plot
- EOBI & Social Security
- Complaint Registration
- Registration with SECP
- Services related to FBR



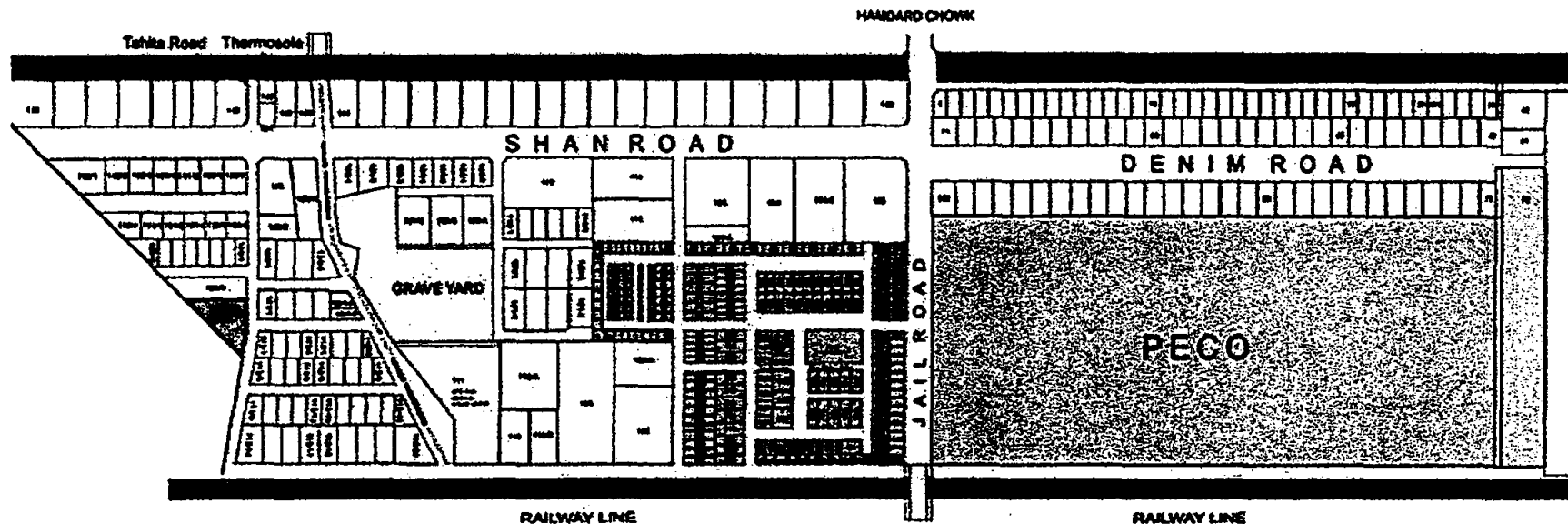


QUAID-E-AZAM INDUSTRIAL ESTATE

- QIE is one of the oldest planned industrial estates of Punjab, spread over an area of 565 acres. It has 477 industrial plots of various sizes varying from 1 kanal to 100 kanals. The Industries located in the estate comprise units of Textile, Dyeing & Printing, Auto Parts, Pharmaceuticals, Food, Household Appliances, Plastic ware, Chemicals, Rubber / Foam, Cosmetics etc. A total of 50,000

workers are employed which includes approximately 10,000 female workers.

- Quaid-e-Azam Industrial Estate is led by a Board of Management belonging to private sector representing various industrial segments of the estate and the rest representing the Government.
- A new one window cell is also being setup which will facilitate all customers.

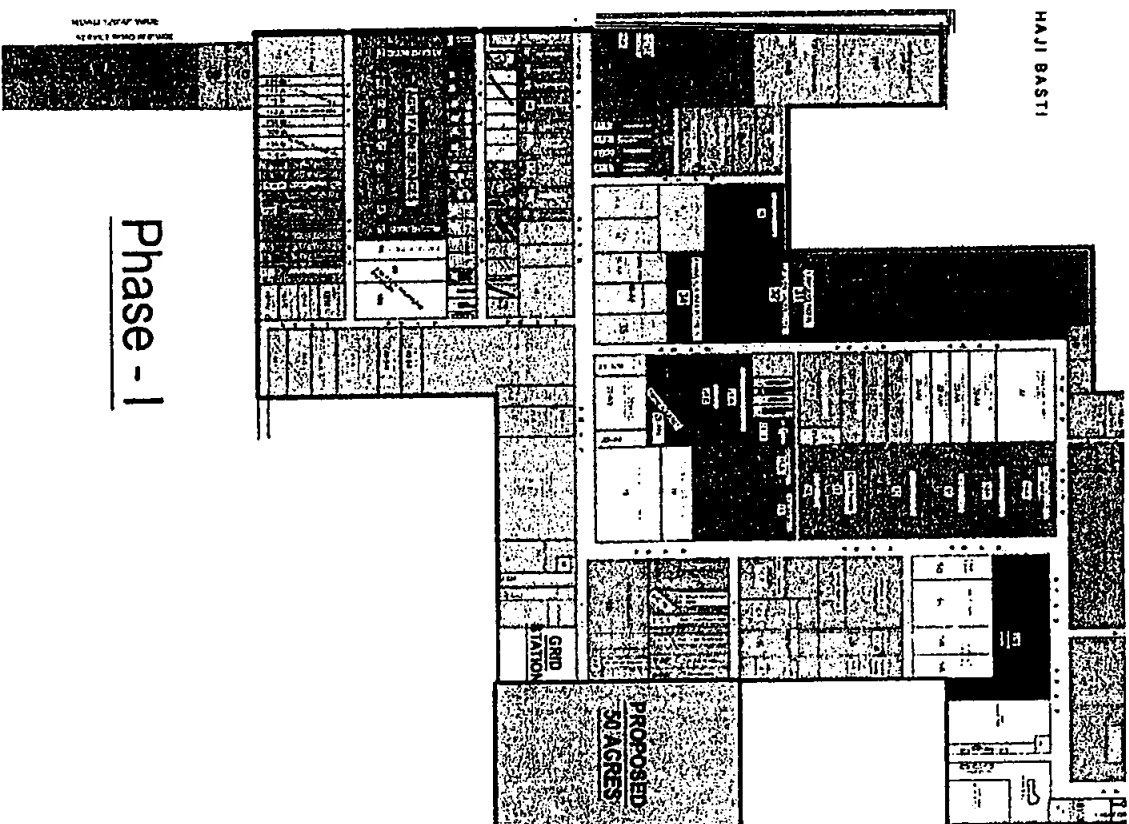


MULTAN INDUSTRIAL ESTATE (Phase 1)

- In 1960's approval was obtained by the Provincial Government to establish an Industrial Estate in the south of Punjab and 1410 acres of land was acquired for this purpose. However, Government of Punjab decided to develop it into two phases.

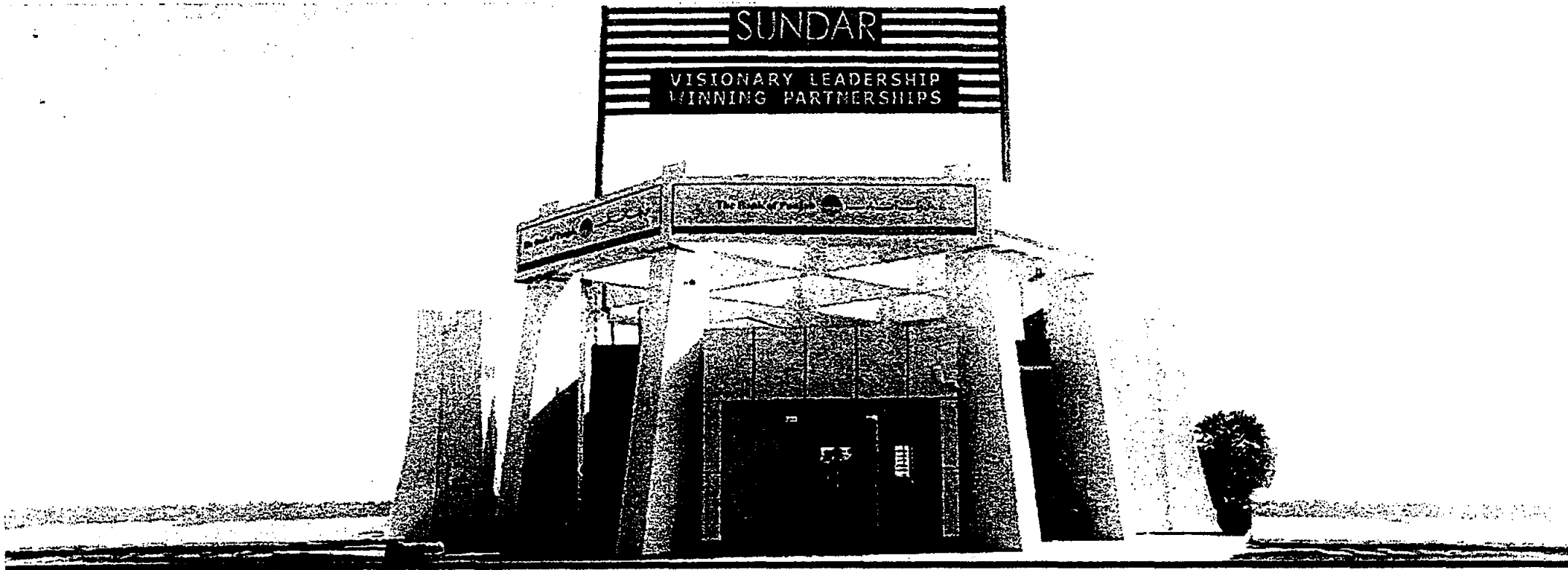
- Phase-I comprising of 743 acres was developed & completed in 1980's whereas, 667 acres were planned to be developed subsequently as phase-II. All plots in phase-I were leased out for a period of 99 years to industrialists and some Govt. Institutions.

- In 2004, the Government of Punjab (GoP) formally handed over MIE to Punjab Industrial Estates in order to revive industrial activity



Phase - I





A ROLE MODEL SUNDAR INDUSTRIAL ESTATE

State of the art, 1802 acres
Industrial estate

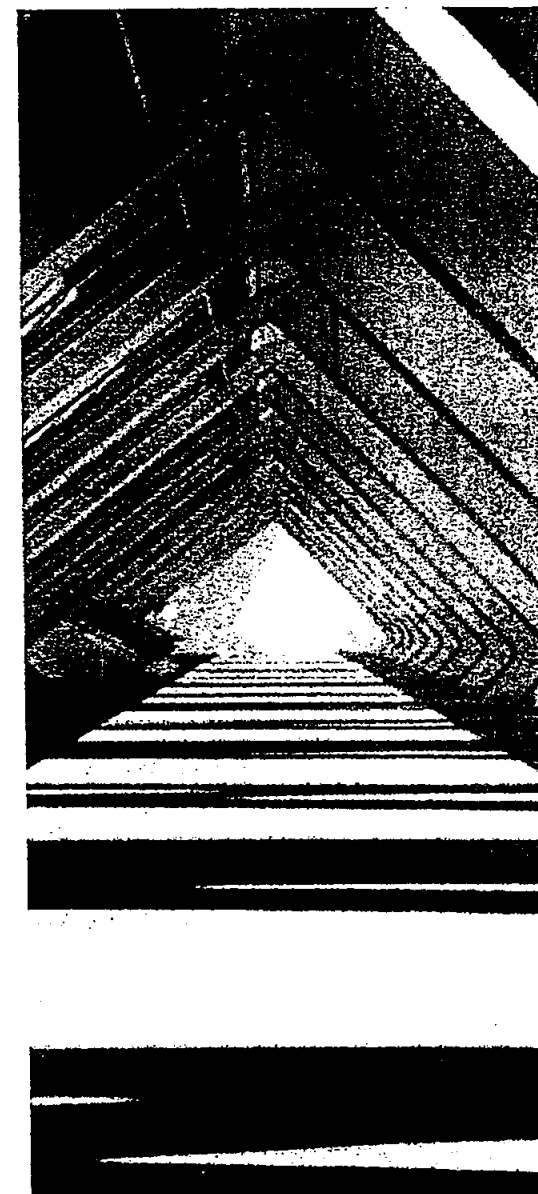


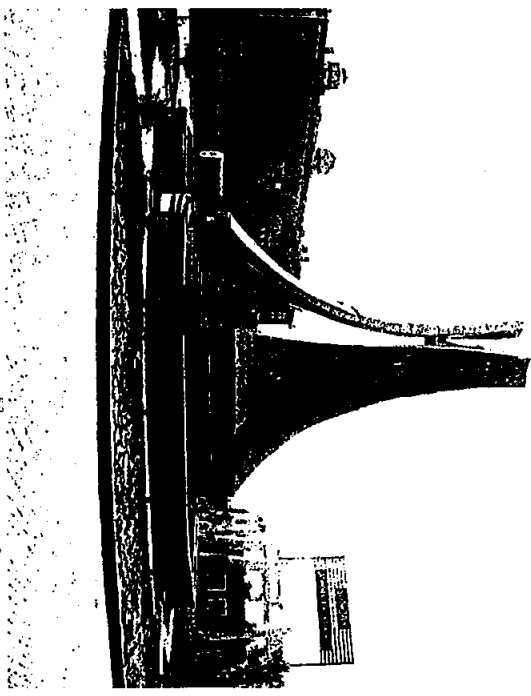
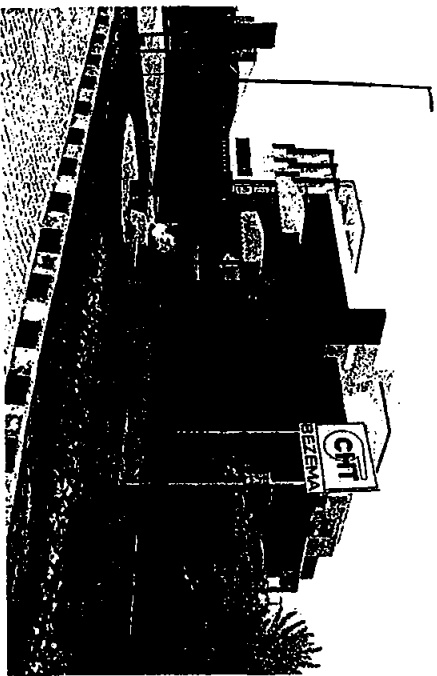
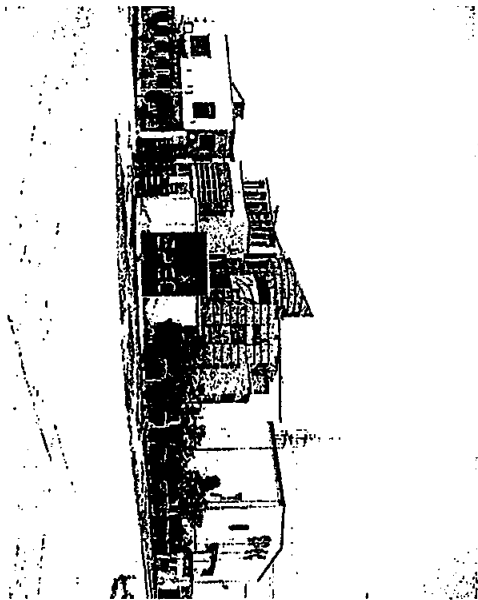
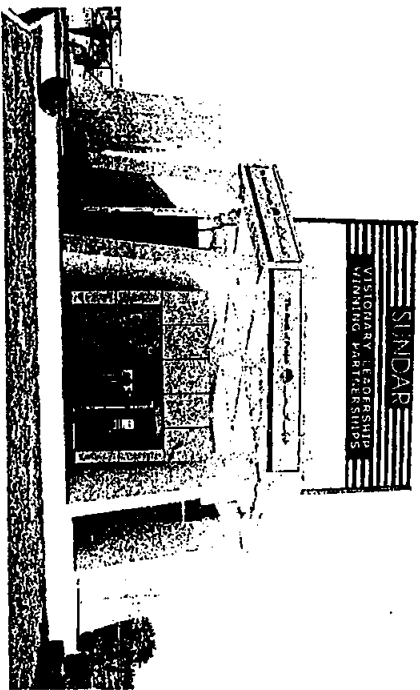


MULTINATIONAL COMPANIES

IN SUNDAR

Sr.	Name Of Project	Nature of Business
1	Tetra Pak	Packaging
2	Pepsi Cola International	Snacks
3	CHT (Pvt.)	Chemical
4	Kansai Paints - Japan	Paints
5	New Allied Motors (LG)	Tri-wheelers
6	SVA - Ruba (Haier)	Injection Molding
7	Terraco - UAE	Chemicals
8	Stieffel Laboratories	Pharmaceutical
9	ICI	Paints - Chemicals
10	Gomila Intersole - Spain	Shoes
11	Colgate - Palmolive	Household
12	SPEC - UAE/USA	Engineering
13	Rudolf Pakistan (Pvt.) Ltd.	Chemical
14	Atlas Honda	Car Batteries
15	Eitmaad Engineering	Engineering
16	BOC	Gas
17	Commins International	Engines
18	SIKA (Swiss)	Construction Additives

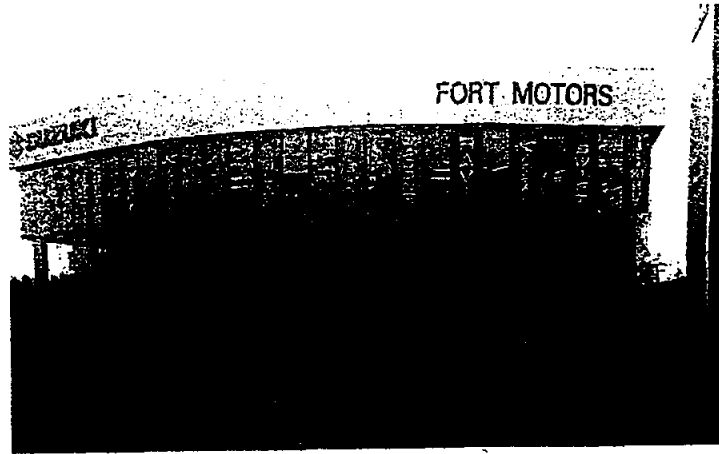
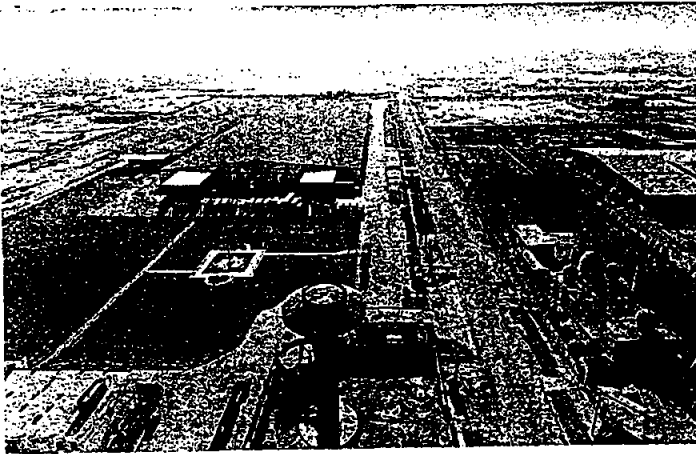




MULTAN INDUSTRIAL ESTATE PHASE 2 (MIE-II)

- 667 acres
- Located adjacent to Phase-I. 17 km from Multan City
- 10 km from Multan Airport, 9 km from Muzafarabad Railway station
- Renowned names like Coca Cola, Pepsi Co. Intl & Gourmet already established their units



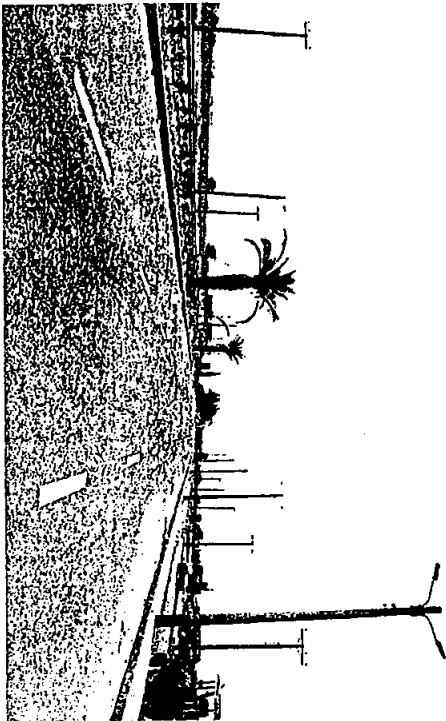
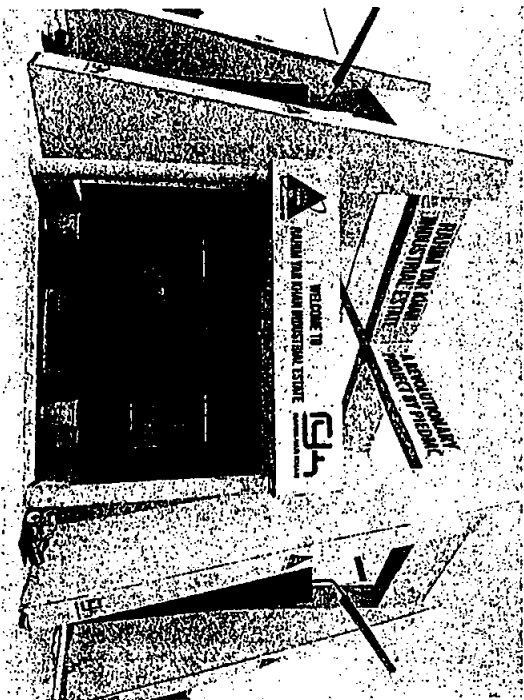


Coca-Cola

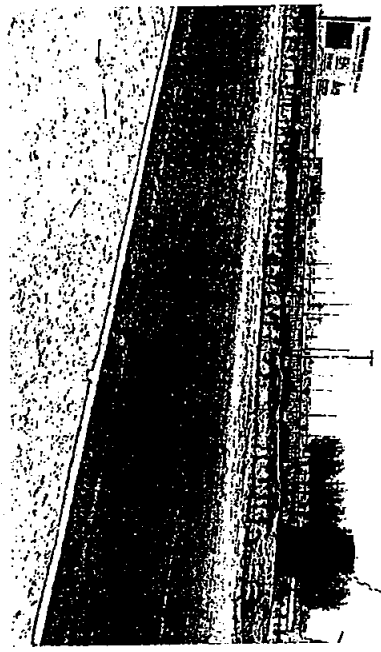
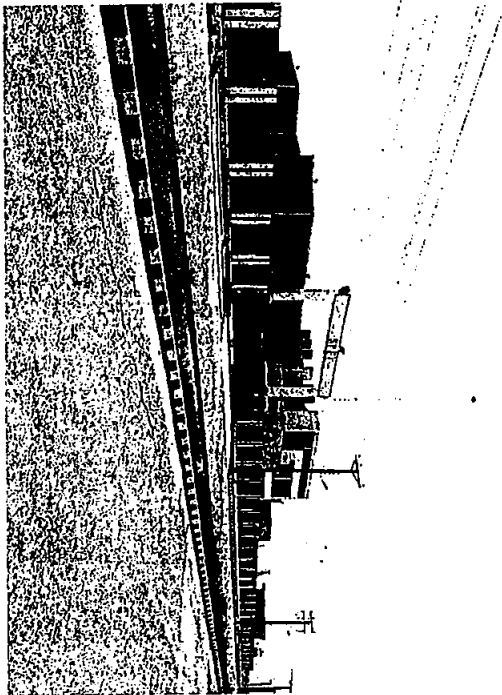
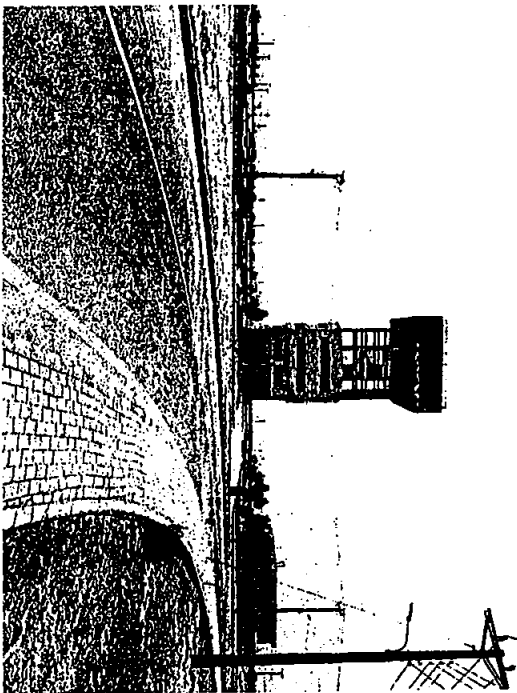
Gourmet 

PEPSICO



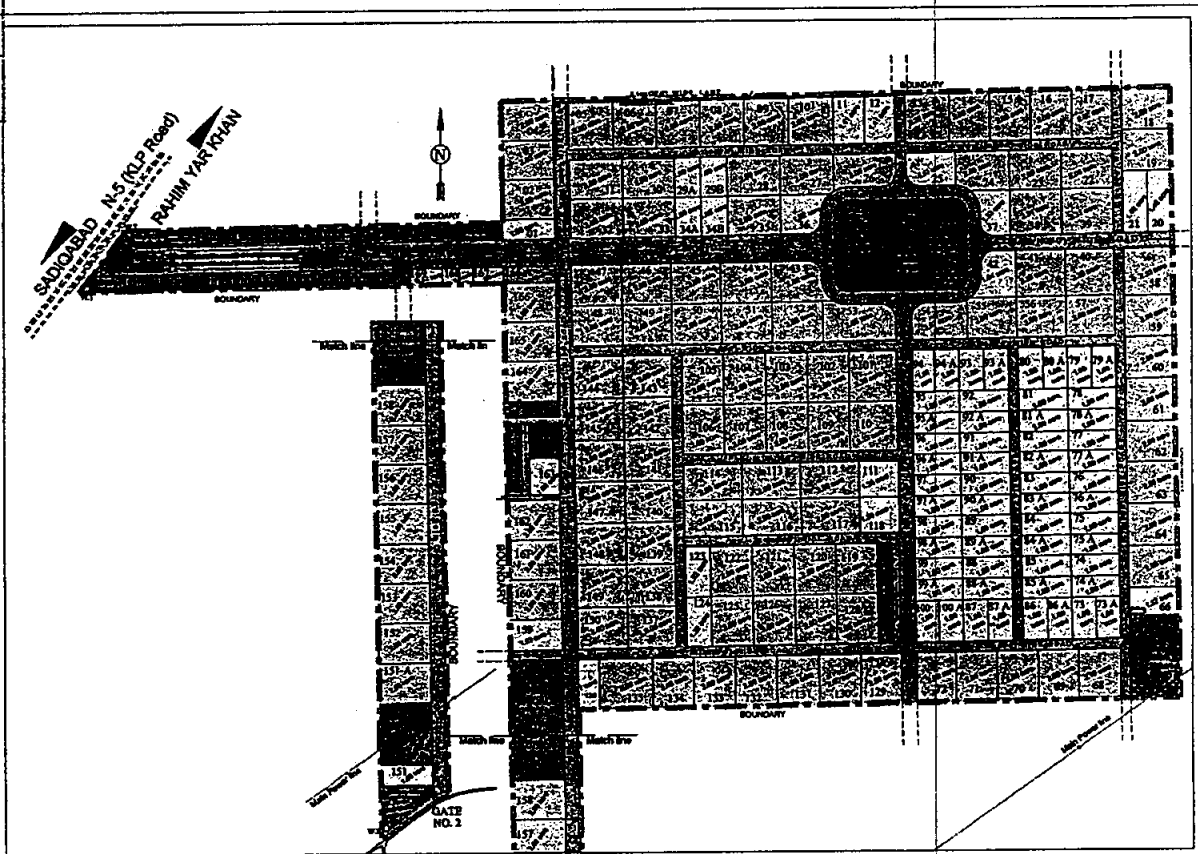
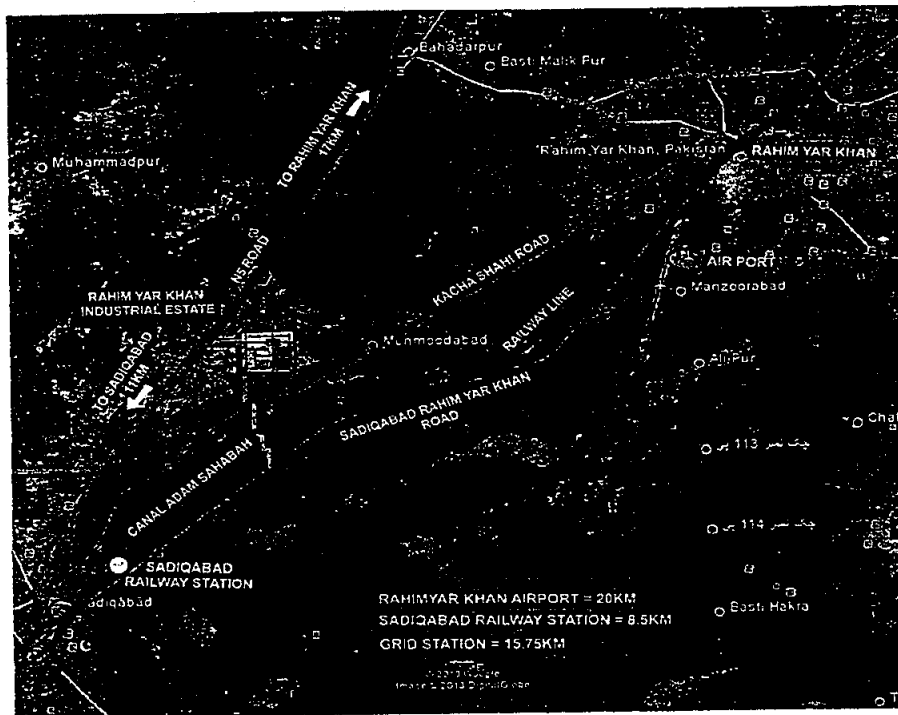


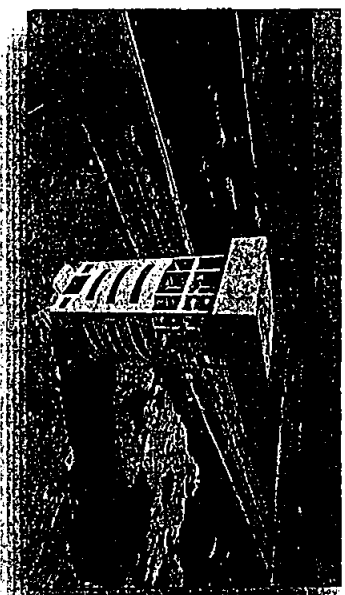
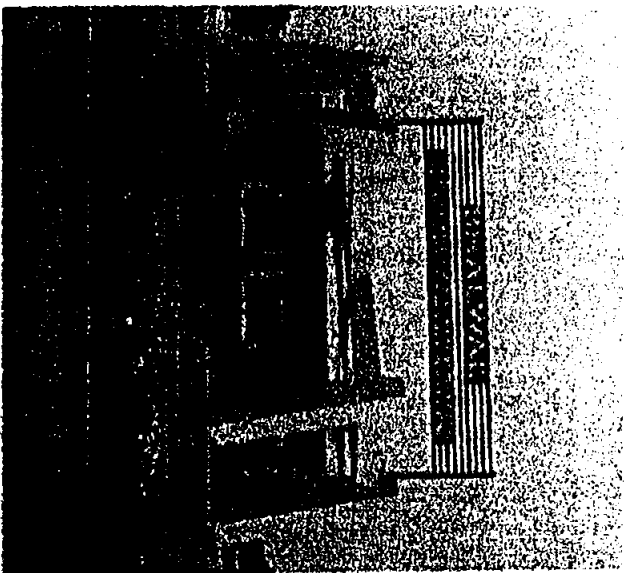
RAHIM YAR KHAN INDUSTRIAL ESTATE



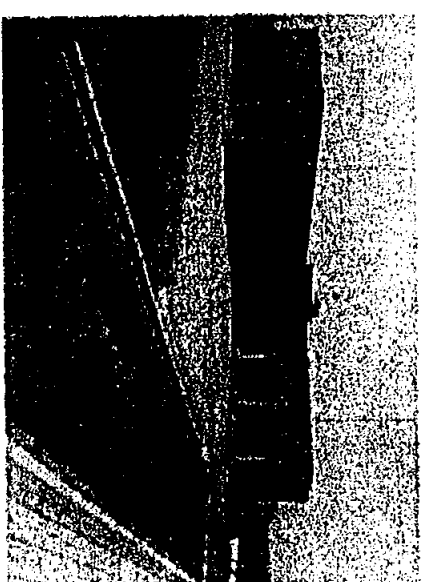
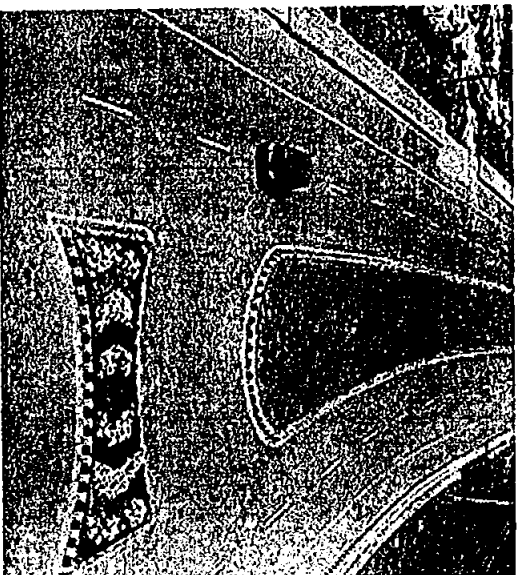
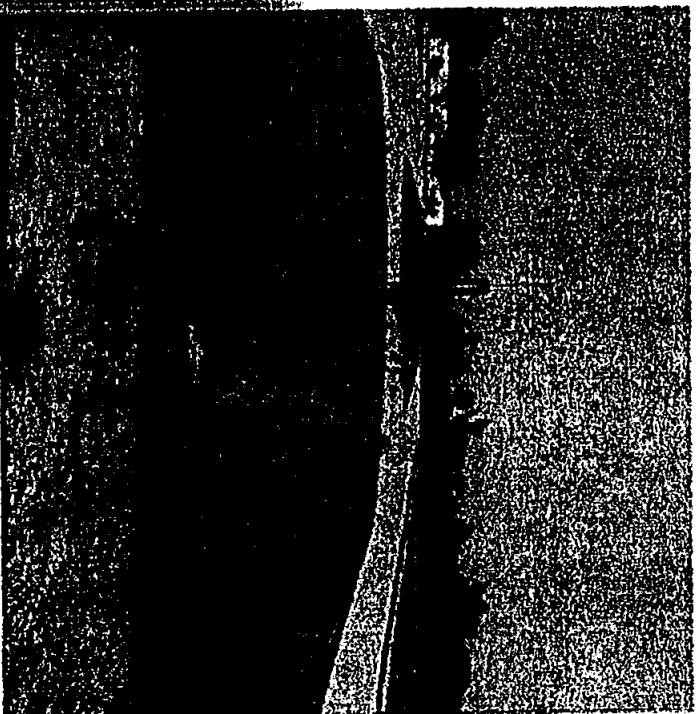
RAHIM YAR KHAN INDUSTRIAL ESTATE (SEZ)

SIZE	456
PLOT PRICE	18 Million
PAYMENT PLAN	30% Down, remaining in 6 installments
PLOT SIZES AVAILABLE	0.5, 1 & 2 Acres & Above



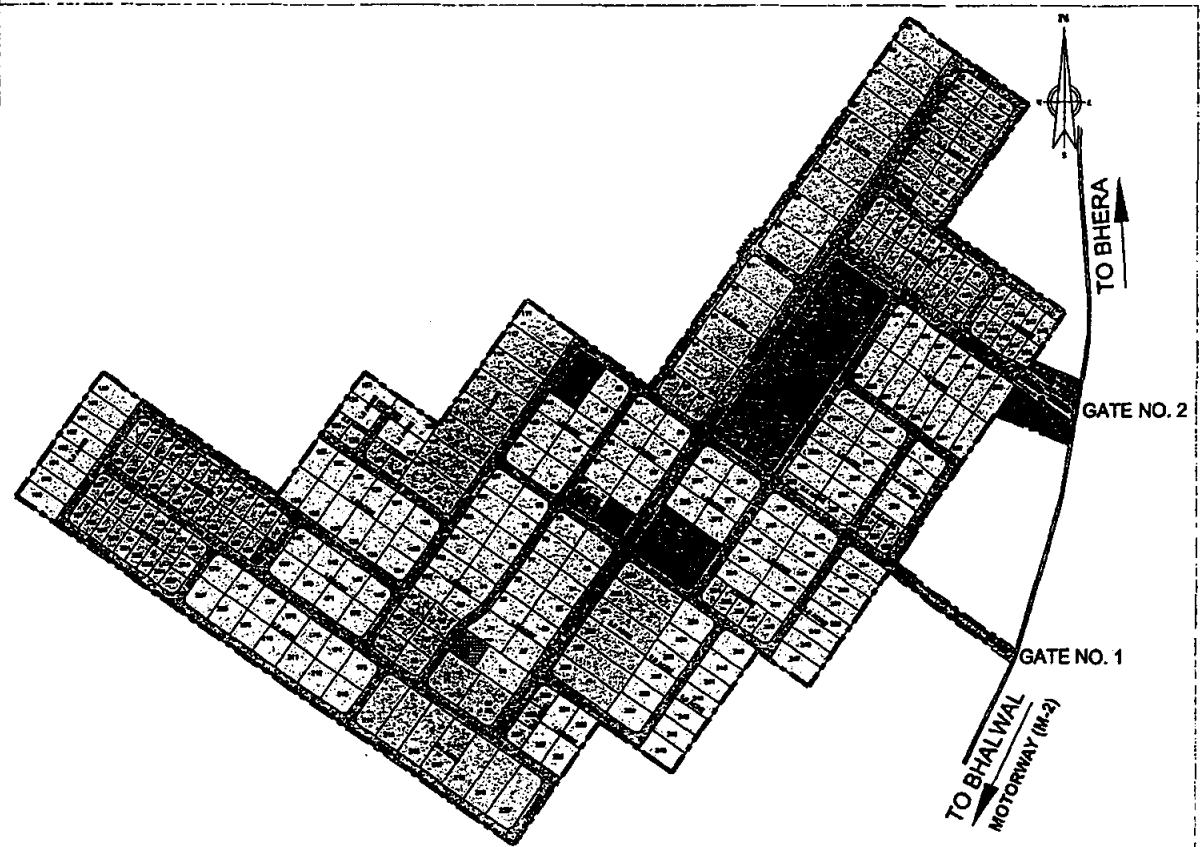


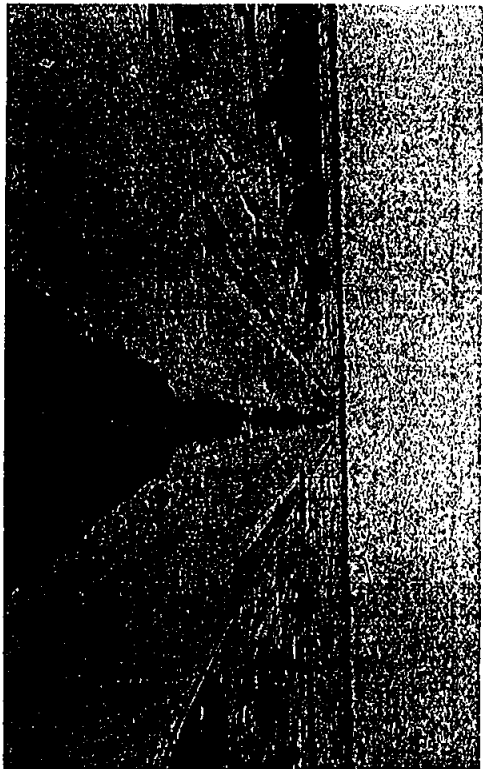
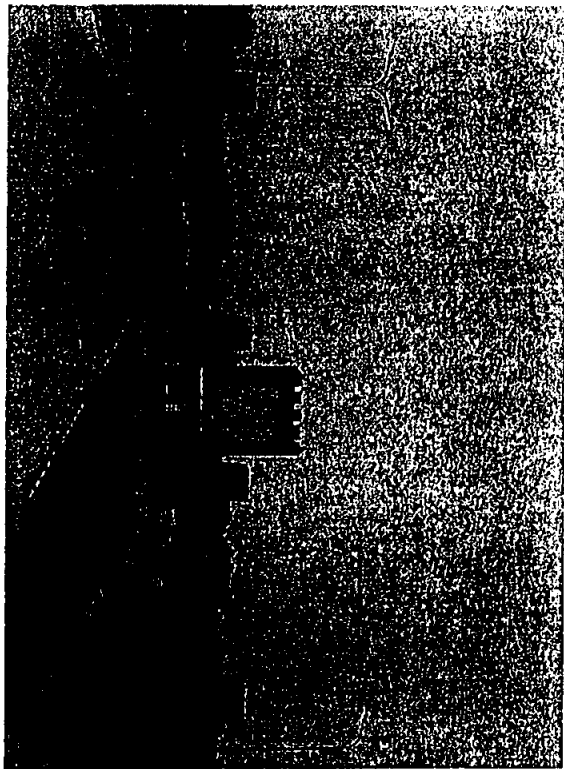
BHALWAL INDUSTRIAL ESTATE



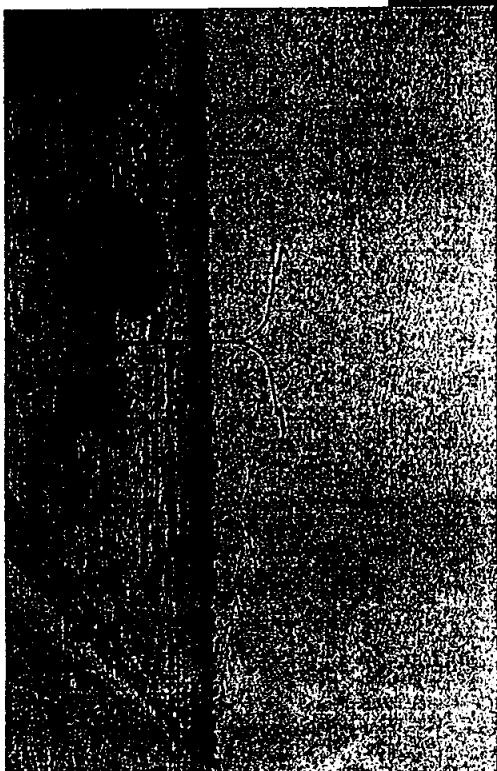
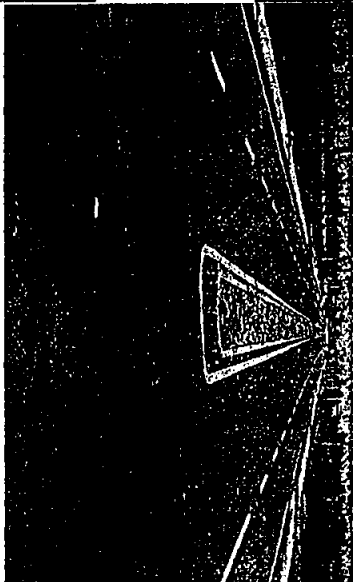
BHALWAL INDUSTRIAL ESTATE (SEZ)

SIZE	427
PLOT PRICE	17 Million
PAYMENT PLAN	30% Down, remaining in 6 installments
PLOT SIZES AVAILABLE	0.5, 1 & 2 Acres & Above



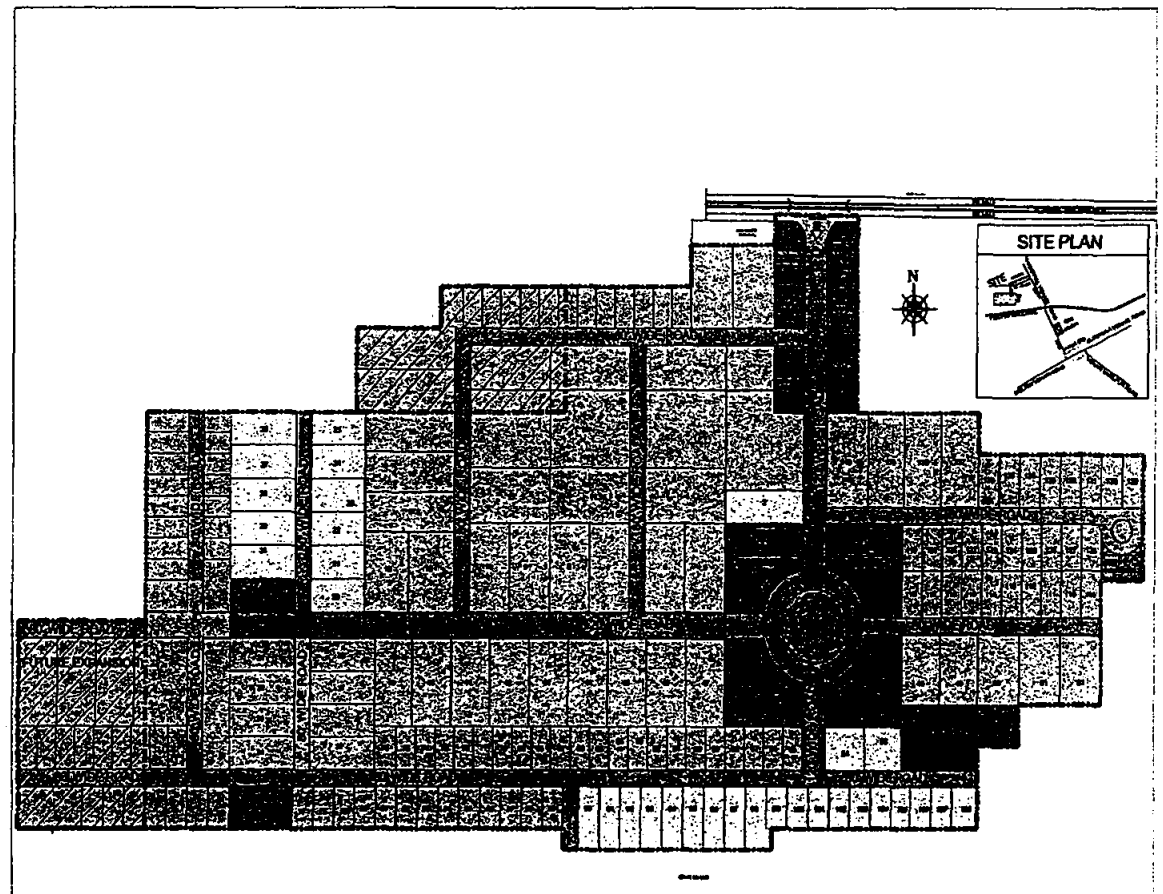
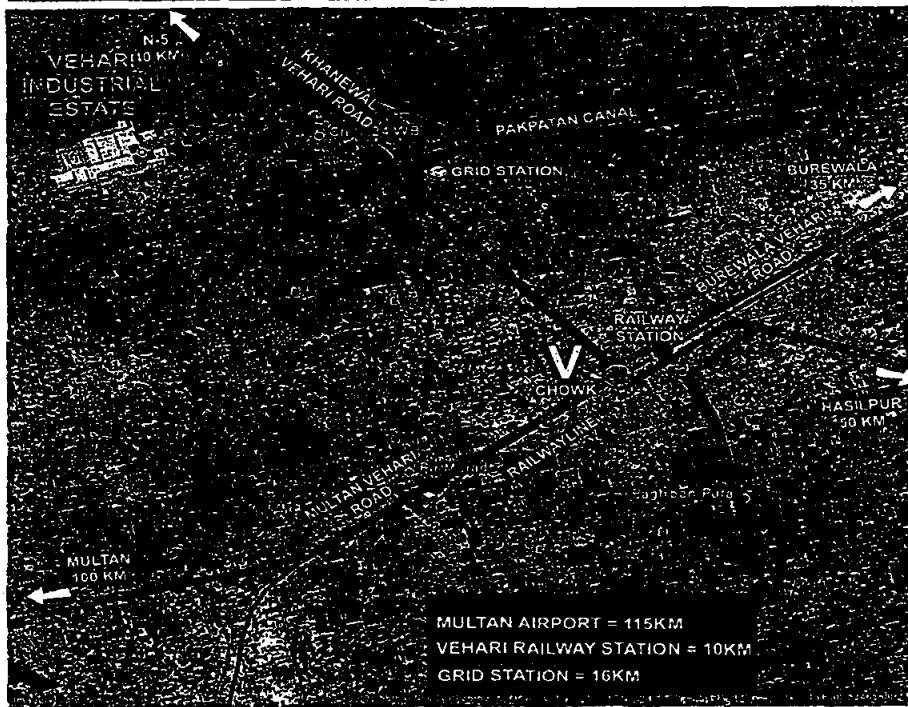


VEHARI
Industrial Estate



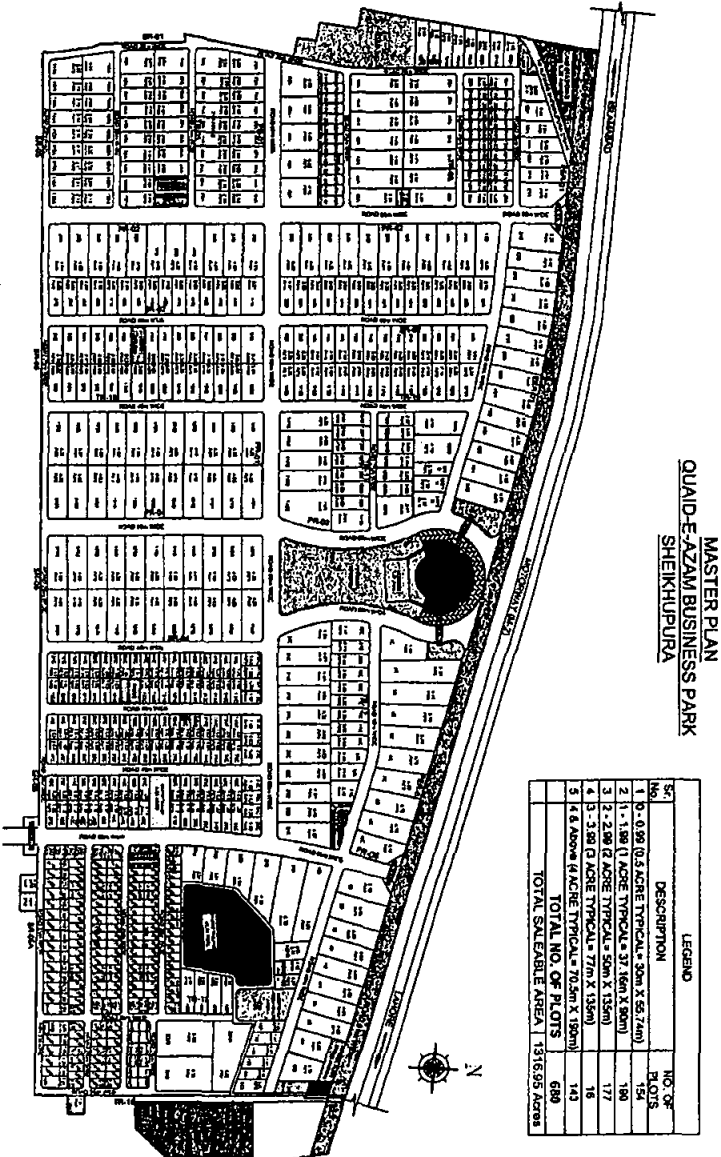
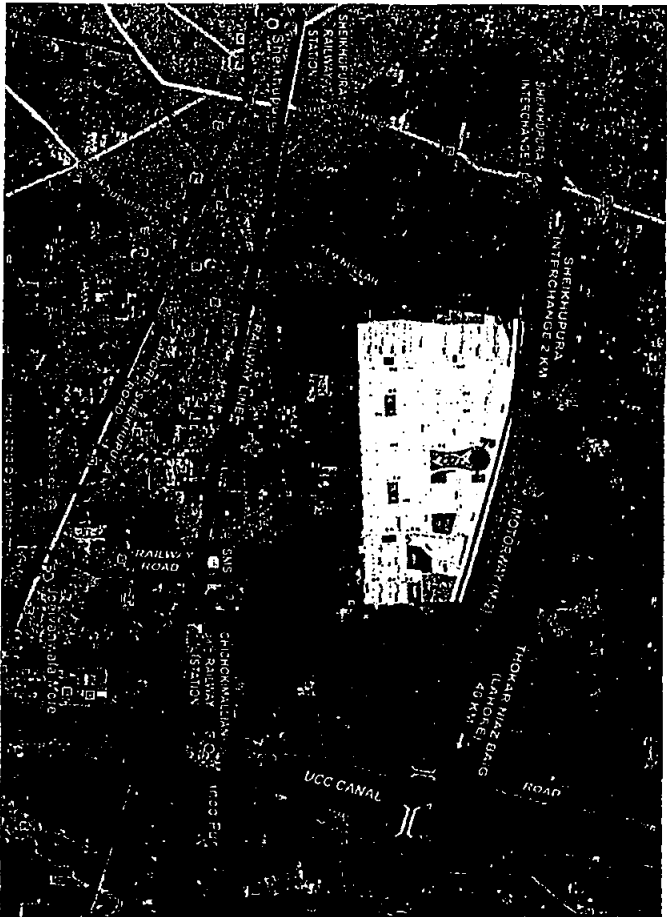
VEHARI INDUSTRIAL ESTATE (SEZ)

SIZE	251
PLOT PRICE	10 Million
PAYMENT PLAN	30% Down, remaining in 6 installments
PLOT SIZES AVAILABLE	0.5, 1 & 2 Acres & Above



QUAID-E-AZAM BUSINESS PARK (SEZ)

SIZE	1860
PLOT PRICE	36 Million
PAYMENT PLAN	30% Down, remaining in 6 installments
PLOT SIZES AVAILABLE	0.5, 1,2,3,4 & 5 Acres & Above



Value-added facilities – at QABP

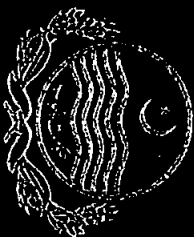
Factory	Trauma / Medical Centre (Self funded)	B&B Hotel	CETP	MOSQUE	Traffic control
Flexi Offices / Virtual Offices/ IT Incubation Center	Machinery / Spares / tools market	Rail track connection	Net Metering facility	Storm water monitoring	Labor residential Colony
Expo Centre	Digital Infrastructure control center	Bus Shuttle Service	GPS Electric metring	Effluent discharge check	

Standard Facilities

Electricity	Gas	Govt. Offices (one window)	RESCUE 1122
Construction Permits	Vocational Training Facility	Water	Fuel / service stations

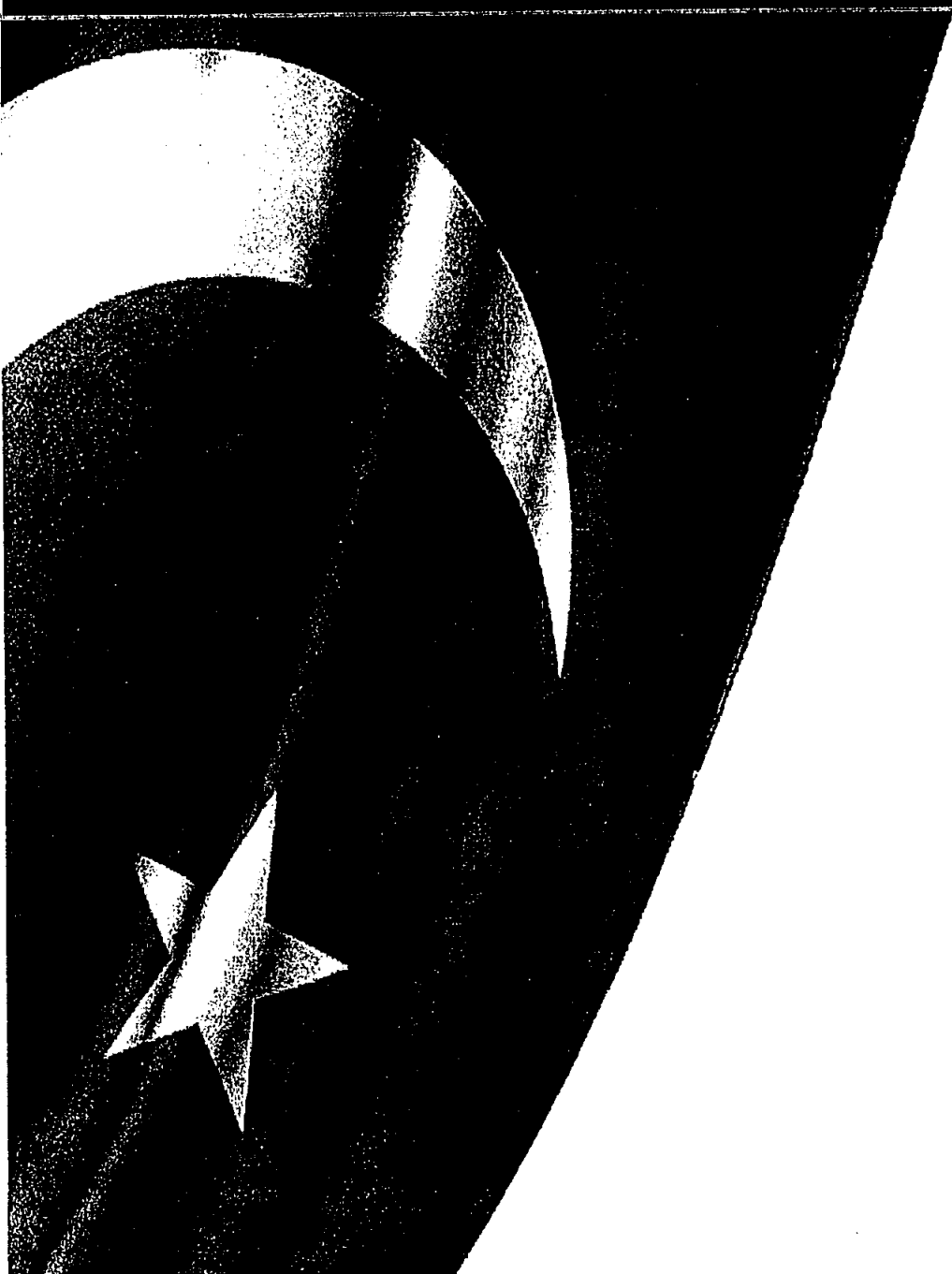


★★★★★
PIEDMC



PIEDMC

THANK
YOU!





**MEMORANDUM & ARTICLE OF
ASSOCIATION
&
CERTIFICATE OF INCORPORATION**

(THE COMPANIES ORDINANCE, 1984)

A COMPANY LIMITED BY GUARANTEE
HAVING A SHARE CAPITAL

Memorandum

and

Articles of Association

of

PUNJAB INDUSTRIAL ESTATE DEVELOPMENT
AND MANAGEMENT COMPANY



CERTIFICATE OF INCORPORATION

No. RP/379 of 200 - 200

I hereby certify that "PUNJAB INDUSTRIAL ESTATE
DEVELOPMENT AND MANAGEMENT COMPANY, "13-PANE ROAD, LAHORE."

is this day incorporated under the Companies Ordinance of
1984, and that the company is limited by Guarantee without addition
of the word "Limited" to its name.

Given under my hand at LAHORE

this 10TH day of SEPTEMBER, 2003.

Two Thousand THREE

Fee : Rs. 25,000/- (TWENTY FIVE THOUSAND ONLY).



(ATIQ-UR-REHMAN)

District Officer
For Registrar
Joint Stock Companies
CITY District Government.
Lahore.

No. RP/1251/L/E/2003/587
Dated. 18.09.2003

Certificate for Commencement of Business

(Pursuant to section 146 of the Companies Ordinance, 1984)

Certified that the PUNJAB INDUSTRIAL ESTATE DEVELOPMENT AND
MANAGEMENT COMPANY, 13- FATE ROAD, LAHORE.

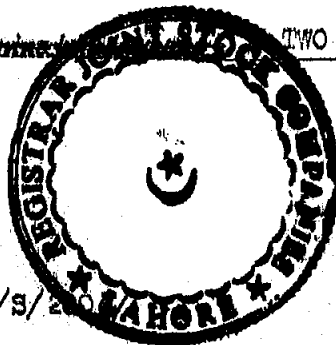
Which was incorporated under the Companies Ordinance, 1984, on the 18th
day of SEPTEMBER, 2003

and which has this day filed a duly verified declaration in the Prescribed form that the conditions of section 69 and 146 of the said Act, been complied with, is entitled to commence business.

Given under my hand at LAHORE

This 3rd day of JAN 2004

~~By my hand and seal~~ TWO THOUSAND FOUR.



NO. RP/1251/L/S/2004

Dated:- 3.1.2004.

(ATIQ-UR-REHMAN)

DISTRICT OFFICER

ENTERPRISE & INVESTMENT PROMOTION
LAHORE

FOR JOINT STOCK COMPANIES
LAHORE REGION.

THE COMPANIES ORDINANCE, 1984

(A COMPANY LIMITED BY GUARANTEE HAVING A SHARE CAPITAL)

ESTABLISHED UNDER SECTION 42
OF THE COMPANIES ORDINANCE, 1984

MEMORANDUM OF ASSOCIATION

OF

PUNJAB INDUSTRIAL ESTATE DEVELOPMENT AND MANAGEMENT COMPANY

1. The name of "The Company" is Punjab Industrial Estate Development and Management Company, having a share capital, (hereinafter referred to as "The Company").
2. The registered office of "The Company" shall be situated in the Province of the Punjab, city of Lahore.
3. "The share capital of "The Company" will be as follows:

(i) Authorized Capital Rs.150.00 Million (Rupees One Hundred and Fifty Million).

(ii) Paid-up Capital Rs.50.00 Million (Rupees Fifty Million).

The Capital is divided into Five (05) Million Ordinary Shares of Rupees Ten (10) each.

4. The objects for which "The Company" is established are as follows:

- i. "The Company" is an association of non-profit organization, within the meaning of section 42 of the Companies Ordinance, 1984 and is being formed as a public company;
- ii. organized and established for orderly, planned and rapid industrialization of Punjab, headed by a Chairman from private sector, a Board of Directors and a General Body as per Articles of Association, all to be nominated by Government of the Punjab, (hereinafter referred to as Government);
- iii. to establish new Industrial Estate(s) as defined in Articles of Association of "The Company" and to upgrade those existing Industrial Estate(s) as may be assigned to "The Company" by Government, in financially sustainable

manner and to undertake such related functions as may be entrusted by Government to "The Company" from time to time;

- iv. to select/acquire/lease/purchase appropriate site(s) for the development of new Industrial Estate(s) and to make ancillary arrangements related thereto for establishing such Estate(s) including but not limited to creation of charge, lien, mortgages, encumbrances etc.;
- v. to develop infrastructure within the Industrial Estate(s). However, "The Company" shall not engage in real estate business;
- vi. to appoint Board of Management (BOM) for each of the Industrial Estate;
- vii. to identify support services required by each Industrial Estate(s) and to establish a linking mechanism with all the industries to increase productivity;
- viii. to form/incorporate/manage/administer/dispose of corporate entity(ies) as subsidiary(ies) with prior approval of the Government including but not limited to power generation/distribution/transmission/purchase/sale and/or any other purpose deemed expedient for the fulfillment of the objects of the Company, and/or to operate with any other company or association having similar objects;
- ix. to facilitate the provisions of utilities like electricity, gas, telephone and medical facilities and ancillary services for the units established or to be established within the Industrial estate(s);
- x. To generate eclectic power through any means of generation developed or to be developed in future and to deal in transmission, transforming, conversion, switching, gridding, sale, purchase, distribution of electric power and other utilities in all its forms and perspectives and to undertake all such activities as are connected, linked or associated therewith and seek necessary approvals/registrations/licences from relevant authorities and to do all such acts, deeds or things as would be required for effective discharge of these objects;
- xi. to provide common facilities for the Industrial Estate(s) and to enter into financial transactions in furtherance thereof;
- xii. to identify the environment preservation requirements for the benefits of the Industrial Units;
- xiii. to create zoning restrictions within the Industrial Estate(s);

- xiv. to promote creation of jobs by capitalization on strengths of each region by prioritizing the type(s) of industry, already prevalent in that particular area;
- xv. to collect statistical data from within the Industrial Estate(s) for undertaking future improvements;
- xvi. to promote interaction between the industrialists and Government to create an over all conducive Industrial environment in the Industrial Estate(s);
- xvii. to arrange workshops and meeting points for creating interaction with international investors, government regulators, non government organizations (NGOs) and various similar services organizations and bodies for creating a highly conducive local/international investment environment;
- xviii. to arrange interaction between academia and industry for creating platform to initiate research projects for the benefits of all concerned;
- xix. to provide the platform for the financial institutions to meet the stake holders and create specific products and services to solve the financial requirements of SMEs and the fiscal requirements of the financial institution(s) to create healthy loaning environment with a reduced risk of failure and to arrange systematic recovery/closure of such units;
- xx. to take necessary steps to attract industrialists to set up units in the Industrial Estate(s);
- xxi. to borrow or raise money by all legal means/instruments, with the specific permission of Government;
- xxii. to open and operate banking account(s) and to draw, make, accept, endorse, discount, execute and issue promissory notes, bills of exchange, bills of lading, warrants, drafts, cheques, bonds, debentures and other negotiable or transferable instruments subject to compliance of relevant prudential regulations;
- xxiii. to undertake and execute such agency agreement(s) which may promote directly the objects of "The Company";
- xxiv. to print and publish any periodicals, books or leaflets in furtherance of "The Company's" objectives;
- xxv. to invest the monies of "The Company" not immediately required in short term secured investment;
- xxvi. to enter, with permission of Government into any arrangements with any government(s) and authority(ies), municipal, local or otherwise or any

person or company that may seem conducive to all or any of the objects of "The Company" and to obtain from any such government(s), authority(ies), person or company any rights, privilege, contracts, license and concessions which "The Company" may think is desirable to obtain and to carry out exercise and comply therewith;

xxvii. to accept from any government(s) or agencies or authorities, public/private/civic bodies, corporations, companies, persons or any other source in Pakistan and abroad for use in work and to raise funds, accept any grants or money, moveable or immoveable property, donations, gifts, subscriptions, devices, bequests and other assistance with a view to promoting the objects of "The Company" and in receiving any gift or property to take the same either conditionally or unconditionally or subject to any special conditions which may be prescribed by the donor in writing and accepted by the BOD subject to such procedure prescribed by Government from time to time;

xxviii. acquire, take-over, accept by way of gift, the assets of any other organization, body or society with similar objects or undertake and accept the management of any endowment or trust fund set up with similar objects as that of "The Company", subject to such procedure as may be prescribed by Government from time to time;

xxix. to take such steps by ~~personal~~ or written appeals or otherwise as may from time to time be deemed expedient for the purpose of procuring contributions to the funds of "The Company" in the shape of donations or annual subscriptions;

xxx. to cooperate with any company or association having objects similar to the objects of "The Company" and any company or association the objects of which are calculated either directly or indirectly to benefit "The Company" in attainment of any of its objects;

xxxi. to propose to Government amendments in statutes, rules, orders for enabling "The Company" to carry any of its objects into effect; and

xxxii. to do all such other lawful and charitable things as are incidental or conducive to the attainment of the above described objects;

5. The liability of the members is limited.

6. The income of "The Company" when-so-ever derived shall be applied solely towards the promotion of the objects of "The Company" as set forth in the Memorandum of Association and no portion thereof shall be paid or transferred directly or indirectly, by way of dividend, bonus, remuneration or grant in the

shape of other benefits, by way of profit, or otherwise howsoever, to the members of "The Company"; provided that nothing therein contained shall prevent the payment in good faith of remuneration to any officers or servants of "The Company" or any other person including Legal Advisor, except a Member in return for any services actually rendered to "The Company", nor prevent the payment of interest on money borrowed or rent out any property leased or hired from any person other than a Member of "The Company". No member of BOD of "The Company" shall be appointed to any salaried office of "The Company", or any office of "The Company" generating fee and that no remuneration shall be given by "The Company" to its members of BOD, but the Chairman/BOD shall be provided with the facilities for boarding, lodging and/or travel domestic or abroad undertaken for furtherance of the objects of "The Company".

7. No addition, alteration or amendment shall be made to or in the provisions or regulations contained in the Memorandum and/or Articles of Association, for the time being in force, except in accordance with the Companies Ordinance, 1984 and with the prior approval of the Government and thereafter the same shall be submitted to and approved by the Registrar of Companies, Lahore Region.
8. Patronage of any government or authority, express or implied, shall not be claimed unless such government or authority has signified its consent thereto in writing.
9. Each member of "The Company" undertakes to contribute to the assets of "The Company" in the event of its being wound up, while he is a member, or within one year afterwards for payment of the debts and liabilities of "The Company" contracted before he ceases to be member, and of the costs, charges and expenses of winding up. The sum to be contributed by the members shall be as follows.

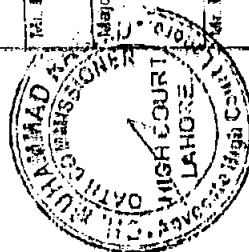
All Members of "The Company" shall individually contribute a sum not exceeding Rs.1000.00 (Rupees one thousand only).

If the total sum required on winding up for payment of the debts and liabilities of "The Company" and of the said costs and expenses shall be less than Rs.1000.00 then the Member shall contribute thereto in proportion to their maximum specified liability.

10. Notwithstanding what is stated herein, if upon the winding up or dissolution of "The Company" there remains, after the satisfaction of all its debts and liabilities, any property whatsoever, the same shall be given or transferred to Government.

We, the several persons, whose names and addresses are hereunder subscribed, are desirous of being formed into a Company in pursuance of this Memorandum of Articles of Association.

Name and surname (present and former in full and block letters)	Father's name in full	Nationality	Occupation	Residential address in full	Signature
Mr. M. Syed	Syed M. Musa	Pakistani	Engineer	71-S, Defence Phase-II, Lahore Cantt.	
Mr. Fayaz Bashir	Bashir Ahmad	Pakistani	Secretary Industries, Commerce & Investment Industrialist	7-Ahmad Road, GOR, Lahore.	
Mr. Qasim Muhammad Qasim	Khawaja Qasim Qasim	Pakistani	Chairman TEVA	House No. 2, Nisar Colony, Kohinoor District, Lahore.	
Mr. Sultana Mustafa Khan	Bashir A. Khan	Pakistani	Engineer	House No. 30-D, Sarwar Road, Lahore Cantt., Lahore.	
Mr. Saif P. Chohan	Dr. M. A. Chohan	Pakistani	Businessman	House No. 16, St. No. 63, Sector 772, Islamabad.	
Mr. Abbas Hyder	Dr. S. M. Naz	Pakistani	Chief Executive Transwale (Pvt.) Ltd	House No. 1-41, Gulberg-II, Lahore.	
Mr. Syed Nadeem Hashmi	Syed Qasim Ali Shah	Pakistani	Chief Executive Corridor Highway (Pvt.) Ltd.	House No. 538, Block-3 Sector C, Township, Lahore.	
Mr. M. I. Khattar	Haji Bashir Ali	Pakistani	Secretary Labour and Human Resources	45-A, Gulberg-II, Lahore.	
Mr. (R) Shah Nawaz Bactor	S. V. Bactor	Pakistani	Secretary Environment Protection Engineer	House No. 33 GOR-III, Shalimar, Lahore.	
Mr. Kamran Lashan	Sardar Abdul Majeed Khan Lashan	Pakistani	Economist	House No. 224 F-100, Islamabad.	
Mr. Zahoor Ahmad Khan	Nasser Ahmad Khan	Pakistani	Economist	House No. 18, Faish Sher Road, Nazim, Lahore.	
Mr. Faisal Bari	Abdul Bari	Pakistani	Economist	122-R, Phase-II, Lahore.	
				House No. 28 Ghazi Road, Karachi, Moha'at Sadr Bazar, Lahore.	



ATTESTED

Dated this _____ day of _____
WITNESS TO ABOVE SIGNATURES

Full Name:

Father's Name:

Full Address:

Nationality:

Signatures: H. KHAMMAD RASHID
OATH COMMISSIONER
High Court Lahore

THE COMPANIES ORDINANCE, 1984

ARTICLES OF ASSOCIATION

OF

PUNJAB INDUSTRIAL ESTATES DEVELOPMENT AND MANAGEMENT COMPANY
(A COMPANY LIMITED BY GUARANTEE HAVING A SHARE CAPITAL)

PRELIMINARY

1. WHEREAS IT HAS BEEN agreed by several persons whose names are hereunto subscribed to establish and incorporate a Company Limited by Guarantee having a Share Capital under the provisions of the Companies Ordinance, 1984 in the name of Punjab Industrial Estate Development and Management Company (hereinafter referred to as "The Company") in accordance with the provisions of the Memorandum of Association hereto annexed and subject to several regulations hereinafter contained which shall be the regulations for management of "The Company" and for the observance of Members thereof and their representatives and the same shall subject to exercise powers of "The Company", in reference to the repeal or alteration of or addition to, its regulations by Special Resolution as prescribed by the "Ordinance", be such as are contained in "These Presents".

INTERPRETATION

2. The marginal notes hereto shall not affect the construction hereof, and in "These Presents" unless there be something in the subject or context inconsistent therewith:
 - I. "Attorney" includes an attorney duly constituted or appointed under power of attorney or any other authority in writing.
 - II. "Board of Directors" means the Board of Directors (BOD) of "The Company" as constituted under provisions of "These Presents".
 - III. "Board of Management" mean representatives of occupiers of each Industrial Estate, nominated and appointed as such by BOD subject to Article 22 hereof. For the purposes of this clause an "occupier" means an owner in possession of an Industrial unit in Industrial estate(s).
 - IV. "Chairman" means Chairman of "The Company" duly nominated from time to time by "Government" under the provisions of "These Presents".
 - IV-a "Chief Executive Officer" means the contractual employee, selected through an open competitive selection process by BOD to perform functions within the meaning of section 2(6) of the Companies Ordinance, 1984 and appointed as such in accordance with the terms and conditions to be determined by BOD.
 - V. "Federal Government" means Government of Pakistan.

- VI. "Fund" means initial amount to be provided by "Government" on loan basis on mutually agreed terms and conditions including mark-up rate with repayment period.
- VII. "General Body" means General Body of "The Company" as constituted under the provisions of "These Presents".
- VIII. "Government" means Government of the Punjab through Industries Department.
- IX. "Industrial Estate" means an Industrial Estate managed or to be established by "The Company" anywhere in the Province of Punjab.
- X. "Independent Director" means a director who is nominated by "Government" and shall have the same meanings as ascribed thereto respectively by the "Rules".
- XI. "Legal Advisor" means an Advocate entitled to appear before any of the High Court of Pakistan or Supreme Court of Pakistan and shall be appointed by the Chief Executive Officer and approved by BOD on retainer basis.
- XII. "Local Government" means a Local Government as defined in the Punjab Local Government Ordinance, 2001 (XIII of 2001).
- XIII. "Member" means Member of "The Company" whose name appears and/or is borne on the Register, as envisaged by Section 2(21) of the "Ordinance".
- XIV. "Month" means English calendar month.
- XV. "Office" means the registered office of "The Company".
- XVI. "Ordinance" means the Companies Ordinance, 1984 and every statutory modification thereof for the time being in force.
- XVII. "Prescribed" means as prescribed by BOD from time to time.
- XVIII. "Rules" means the Public Sector Companies (Corporate Governance) Rules, 2013 and every statutory modification thereof for the time being in force.
- XIX. "Register" means the Register of Members to be kept pursuant to the "Ordinance".
- XX. "Seal" means the common Seal of "The Company".
- XXI. "Secretary" means any individual appointed to perform the secretarial, administrative or other duties ordinarily performed by the secretary of a company.
- XXII. "Special Resolution" and "Ordinary Resolution" have the same meanings as assigned thereto respectively by the "Ordinance".
- XXIII. "These Presents" means and include Articles of Association and any modification or alteration thereof for the time being in force.
- XXIV. Words importing singular number only include the plural number.
- XXV. Words importing plural number only include the singular number.

- XXVI. Words importing masculine gender only include the feminine gender.
- XXVII. Words importing feminine gender only include the masculine gender.
- XXVIII. Words importing persons include bodies corporate and otherwise, firms, registered or un-registered associations, and non-government, semi-government and government organizations.
- XXIX. Words of expressions in "These Presents" shall, except where it is repugnant to the subject or context, bear the same meanings as in a Standard English Dictionary.
- XXX. "Written" and "In Writing" includes printing, lithography, type-writing, telex, tele-facsimile (fax) and other modes of representing or reproducing words in a visible form.

BUSINESS OF "THE COMPANY"

3. The business of "The Company", its affairs and/or functions shall comprise of achieving the objects given in the Memorandum and include undertaking of all or any of the several objects, and any act, deed or thing done in pursuance thereof, ancillary and/or incidental thereto as expressed in, and authorized by the Memorandum of Association hereto annexed, and can be commenced immediately after incorporation of "The Company" as BOD may think fit.

SHARE CAPITAL OF "THE COMPANY"

4. The Equity of "The Company" which shall be provided by the "Government" as follows:

- Authorized Capital Rs. 150.00 Million (Rupees One Hundred and Fifty Million)
- Paid up Capital Rs. 50.00 Million (Rupees Fifty Million)

The Capital shall be divided into (150) Million Ordinary Shares of Rupees Ten (10) each. "The Company" may from time to time, by Special Resolution, increase, consolidate, subdivide, reduce or otherwise reorganize the Share Capital, subject to the "Ordinance" and with prior approval of the "Government".

TRANSFER AND TRANSMISSION OF SHARES

5. The "Government" shall have the exclusive right to transfer any share.

No shares can be mortgaged, pledged, sold, hypothecated, transferred or disposed of by any Member without previous sanction of Government.

In case of death of any Member, his share shall automatically stand transferred to Government, which shall have the exclusive right to allot the same to any other person/institution/entity.

MEMBERSHIP

6. The subscribers to "These Presents" and to the Memorandum of Association hereunto annexed shall be admitted to the Membership of "The Company" from time to time and shall be deemed to have agreed to become a "Member" of "The Company" in

accordance with and in pursuance to "These Presents" and whose names appear in the Register, shall be the "Member" of "The Company".

7. The total number of members of BOD of "The Company" shall be fifteen (15), who shall be nominated by "Government". Nine (09) members including the Chairman shall be the Independent Directors nominated by "Government". Six (06) members of the BOD shall be the Secretaries to the "Government" for Industries Department, Finance Department, Labor & Human Resource Department Chairman TEVTA., Chief Executive Officer of "The Company" and Chief Executive Officer of Punjab Board of Investment & Trade (PBIT) shall be appointed *ex-officio*.

Subsequent vacancies arising thereafter of members of BOD shall be filled in accordance with "These Presents". Due regard shall be given to skills and discipline in the composition of "General Body". Any person, who is a loan defaulter, or is a sponsor of a company which is in loan default, or otherwise ineligible to hold any such post under or by any law cannot be a member of BOD.

8. Any person/industrial estate/organization interested in the promotion of good governance and engaged in any voluntary activity with a proven record of Industrial experience is eligible to become a "Member" of "General Body" on invitation by BOD and approval of "Government", except a person/ industrial estate/organization who is a loan defaulter, or is a sponsor of company which is a loan defaulter, or otherwise ineligible to hold any such post under or by any law. Such person/industrial estate/organization may be associated with a voluntary organization or a private individual having record of community service but his/its Membership of "The Company" will be in his/its individual capacity.

9. "The Company" shall maintain a Roll of "Members", clearly indicating their full names, addresses and occupations and every "Member" shall sign the same. If a "Member" of "The Company" changes his address, he shall forthwith notify his new address to "Secretary" of "The Company", who shall thereupon cause the new address to be put on the Roll of "Members". Where, however, a "Member" does not notify any change of address to the "Secretary", the address appearing on the Rolls of the "Members" shall be deemed to be correct address of the "Member". The said Roll of "Members" also called "Register" shall be maintained at the Office of "The Company".

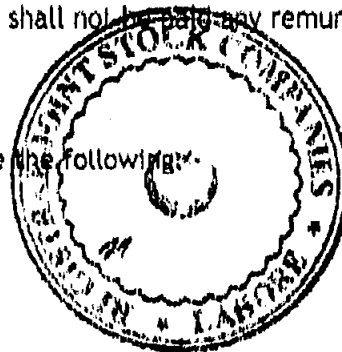
10. Membership of "The Company" may be terminated on the happening of any of the following events:

- I. On the "Member's" death, resignation, insolvency, lunacy or conviction for an offense involving moral turpitude.
- II. When a "Member" does not attend three consecutive General Meetings of "The Company" without prior leave of absence granted by BOD.
- III. When "The Company" in General Meeting, by a simple majority, decides to terminate the Membership of any person who acts in a manner prejudicial to the interests of "The Company", fails to fulfill any obligation required by "The Company" or acts in a manner as is not conducive to the objects of "The Company".

11. Subject to the foregoing and/or other provisions, Membership of "The Company" shall be open to all Pakistani citizens.
12. If a vacancy occurs, among the "Members", such vacancy shall be filled in as provided in Article (08) supra.
13. When a "Member" desires to resign from his Membership of "The Company", he shall forward his letter of resignation to the Chairman and such resignation shall take effect only from the date of its acceptance by BOD.
14. "The Company" shall function notwithstanding any vacancy in any of its bodies and no act, direction or proceeding of "The Company" shall be rendered invalid merely by reason of such vacancy or because of any defect in the appointment of any of the officers of "The Company".
15. The Chairman and the members of BOD will not be paid any remuneration but will be provided traveling, boarding, lodging traveling and transportation facilities on such terms as decided by BOD.
16. "Members" of "The Company" shall not be paid any remuneration or dividend.

OFFICERS OF "THE COMPANY"

17. "The Company" shall comprise the following:
 - I. General Body
 - II. BOD
 - III. Chairman
 - IV. Chief Executive Officer
 - V. Secretary
 - VI. Board of Management for specific Industrial Estates, exercising such powers as may be specifically "Prescribed" by BOD.



GENERAL BODY

18. There shall be a "General Body" of "The Company", which shall comprise of all the shareholders.
19. The Chairman shall preside over all meetings of "General Body".
20. The Chairman may invite any person other than a Member to attend a meeting of "General Body". Such invitee to be known as special invitee, shall not, however, be entitled to vote at the meeting.
21. "General Body" shall have the following powers and functions, namely:
 - a. to give overall policy guidance and direction for the efficient functioning of "The Company";
 - b. to approve the annual budget;
 - c. to consider the balance sheet and audited accounts for the previous year;

- d. to consider the annual report prepared by BOD;
- e. to amend "These Presents", if deemed necessary, by way of addition, alteration, modification or substitutions, in accordance with the "Ordinance" and with prior approval of the "Government" only after which the same shall be submitted to and approved by the Registrar Companies, Lahore Region.
- f. to appoint auditors except the First Auditors to be appointed by BOD.

POWER OF NOMINATION AND/OR TERMINATION

- 22. The power to nominate and/or terminate the Chairman, any Director or the "Member" of "General Body" shall vest with the "Government". The "Government" may also supersede BOM of industrial estates or appoint or remove member(s) thereof.

GENERAL MEETINGS

- 23. The First Annual General Meeting of "The Company" shall be held at such time not more than eighteen (18) months after the incorporation of "The Company", and at such time and place as BOD may determine.
- 24. Subsequent Annual General Meetings of "The Company" shall be held at least once every year at such time and place as may be determined by BOD, within fifteen calendar months after the holding of the last preceding General Meeting and within four months from the closing of the annual accounts.
- 25. The above named General Meetings shall be called Annual General Meetings. All other meetings of "The Company" shall be called Extraordinary General Meetings.
- 26. BOD may at any time call for an Extraordinary General Meeting and shall, on the requisition of the Members representing not less than one-third of the voting power on the date of deposit of requisition, proceed to call an Extraordinary General Meeting.
- 27. Any such requisition shall specify the objects of the Meeting and shall be signed by the makers, and shall be deposited at the Office. The meeting must be convened for purposes specified in the requisition only.
- 28. If BOD does not proceed to cause a meeting to be held within twenty one days from the date of requisition being deposited, the makers or a majority of them may themselves convene a meeting to be held not more than three months, from the date of deposit of the requisition.
- 29. Any meeting convened through requisition shall be convened in the same manner, as nearly as possible, as that in which meeting is convened by BOD.
- 30. Subject to the provisions of the "Ordinance", relating to Special Resolutions, twenty one days notice, at least (exclusive of the day on which the notice is served or deemed to be served, but inclusive of the day on which the notice is given), specifying the place, the day and the hour of the meeting, and in case of special business, the general nature of such business, shall be given of every General Meeting whether Annual or Extraordinary to the "Members" in the manner in which notices

are required to be served in accordance with the provisions contained herein below. Notwithstanding anything contained herein before, a meeting may be convened by such shorter notice and in such manner as those "Members" may think fit with the consent of all the "Members" entitled to receive notice thereof and the permission of the Registrar Companies, Lahore Region.

31. The accidental omission to give any such notice to or the non-receipt of notice by any of the "Member" shall not invalidate the proceedings of any such meeting.

PROCEEDING AT GENERAL MEETINGS

32. The business of an Annual General Meeting shall be to receive and consider the income and expenditure account and balance sheet, the Annual Report of BOD and of the Auditors, if required or found necessary, and the appointment of the Auditors and fixation of their remuneration and to transact any other business which may be transacted at an Annual General Meeting. All other business transacted at Annual General Meeting and all business transacted at an Extraordinary General Meeting shall be deemed special.
33. Two third (2/3) of the voting power of "Members of the Company" present personally, shall be a quorum for a General Meeting for all purposes. No business shall be transacted at any General Meeting unless the quorum is present at the commencement of business.
34. If within an hour of the time appointed for the meeting a quorum is not present, the meeting if called on the requisition of "Members", shall be dissolved. In any other case, it shall stand adjourned to the same day in the next week at the same time and place, and if at the adjourned meeting, a quorum is not present within half an hour from the time appointed for the meeting, "Members" being not less than one fourth (1/4) of the total voting power of "Members" of "The Company", shall be a quorum.
35. The Chairman shall be entitled to take the chair at every General Meeting of "The Company". If the Chairman is unable due to sickness or some other unavoidable reasons, BOD may elect one of the Director's to preside.
36. The Chairman may, with the consent of any meeting at which a quorum is present (and shall if so directed by the meeting), adjourn the meeting from time to time and from place to place, but no business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place. When a meeting is adjourned for ten days or more, notice of the adjourned meeting shall be given as in the case of an original meeting. Save as aforesaid, it shall not be necessary to give any notice of an adjournment or of the business to be transacted at an adjourned meeting.
37. At any General Meeting a resolution put to the vote of the meeting shall be decided on a show of hands, unless a poll (before or on the declaration of the result of the show of hands) demanded in accordance with the provisions of the "Ordinance" and unless a poll is so demanded, a declaration by the Chairman that a resolution has, on a show of hands, been carried or carried unanimously or by a particular majority

and an entry to that effect in the book of the proceedings of "The Company" shall be conclusive evidence of the fact, without proof of the number or proportion of the votes recorded in favor of, or against, that resolution.

38. If a poll is duly demanded, it shall be taken in such manner as the Chairman shall direct, and the result of the poll shall be deemed to be the resolution of the meeting at which the poll was demanded.
39. In the case of an equality of votes, whether on a show of hands or on a poll, the Chairman of the meeting at which the show of hands takes place, or at which the poll is demanded, as the case may be, shall be entitled to a casting vote.
40. The demand of a poll shall not prevent the continuance of a meeting for the transaction of any business other than the question on which a poll has been demanded.

VOTES OF MEMBERS

41. On a show of hands and on a poll, every Member present in person shall have vote(s) according to the shareholding. Voting by proxy is allowed as envisaged by the "Ordinance".
42. Any corporation or body corporate which is a Member of "The Company" may by resolution of its directors or other governing body, authorize such person as it thinks fit, to act as its representative at any meeting of "The Company". The persons so authorized shall be entitled to exercise the same powers on behalf of the corporation which he represents as that corporation could exercise if it were an individual Member of "The Company" present in person. A corporation or body corporate, as the case may be, attending a meeting through such representative shall be deemed to be present at the meeting in person.

BOARD OF DIRECTORS (BOD)

43. The BOD shall comprise of fifteen (15) members of which nine (09) members including the Chairman shall be the Independent Directors. The remaining six (06) members shall be the following

Secretary Industries
Secretary Finance
Secretary Labor and Human Resource Development
Chairman TEVTA
Chief Executive Officer of "The Company"
Chief Executive Officer PBIT

44. The affairs of "The Company" shall be managed by BOD, which shall have the responsibility to determine the direction and scope of the activities of "The Company" in accordance with the objectives specified in Memorandum of Association. It shall also have the responsibility to approve projects and assignments as well as providing technical assistance as may be mutually agreed upon, to the "Local Governments" and to approve and administer the annual and supplementary budgets.

45. The term of office of a member of BOD shall be three years, unless he resigns earlier or becomes disqualified from being a Director or otherwise ceases to hold office.
46. No member of BOD shall serve for more than three (03) consecutive terms of three (03) years each except *ex officio* members.
47. Members of BOD shall function in their individual capacity exercising individual judgment under the Chairman, and shall not be subjected to or be bound by instructions or orders of the office, organization or agencies with which they may be associated, except *ex officio* members.
48. No action or decision by BOD shall be rendered invalid or inoperative on account of any vacancy or vacancies in the composition of BOD.
49. The meetings of BOD shall be held in the following manner:
 - a. The BOD shall hold at least six regular meetings every year and shall be called by notice under the signature of "Secretary".
 - b. All meetings of BOD shall be presided over by the Chairman or in his absence, by a Director to be elected by BOD.
 - c. Minutes of the meetings of BOD shall be recorded by "Secretary" or in his absence by a member of BOD, appointed by the Chairman. The minutes shall be duly approved or corrected at the following regular meeting and filed in the permanent records of "The Company".
 - d. Members of BOD shall not receive any compensation for their services to "The Company" and/or any profit out of the business of "The Company".
50. Every notice calling for a meeting of BOD shall state "In Writing" the date, time and place of the meeting and shall be sent to every member of BOD ordinarily seven clear days before the day appointed for the meeting.
51. Any inadvertent omission to give notice or the non-receipt or late receipt of a notice by any member shall not invalidate the proceedings of the meetings.
52. At least 1/4th of the members of the BOD shall constitute a quorum provided at least one Director shall be the representative of the "Government".
53. Each member of BOD shall have one vote. All questions at meetings of BOD shall be determined by a vote of members present, provided that in case of equality of votes, the Chairman shall have a casting vote.
54. Subject to the "Ordinance" any business which BOD may consider necessary to perform, except such as may be required to be placed before "General Body" in general meeting, may be performed by a resolution in Writing circulated among all members of BOD, and any such resolution so circulated and approved by a majority of the members signing, shall be as effectual and binding as if a resolution had been passed at a meeting of BOD.
55. The proceedings of the meeting of BOD and resolution passed by the circulation shall be recorded in a book which shall be maintained by "The Company" for this purpose.

56. BOD shall exercise all executive and financial powers of "The Company", subject to such direction as may be issued by "General Body" from time to time.
57. The BOD shall be responsible for developing the policy guide lines for over-all management and administration of "The Company" and in particular and without prejudice to the generality of the foregoing provisions, BOD shall have the powers, subject to the provisions hereof, *inter alia*:
- I. establish byelaws and service rules of "The Company";
 - II. to constitute or to reconstitute Board of Management(s) for the industrial estates established, developed or managed by "The Company" and appoint members, fill casual vacancy(ies) and to remove any or all member(s) thereof;
 - III. to devise eligibility criteria and to establish operational policies including those relating to finance(s) for "BOM" of the Industrial Estate(s) established, developed or managed by "The Company";
 - IV. prepare and execute detailed plans and programs for the furtherance of the objects of "The Company";
 - V. consider the annual and supplementary budgets placed before it and pass them with such modifications as may be deemed necessary for being submitted to "General Body";
 - VI. prepare annual report and cause the preparation of accounts of "The Company" for consideration of "General Body";
 - VII. create posts and appoint such contractual staff as may be required for efficient management of affairs of the "The Company" and regulate the recruitment and terms and conditions of their services;
 - VIII. receive and to have custody of Funds and resources of "The Company", operate "The Company" and manage the properties of "The Company";
 - IX. incur expenditures subject to the provisions of the approved budget;
 - X. enter, for and on behalf of "The Company", into agreements including those containing arbitration clauses;
 - XI. establish, maintain, amalgamate and/or close down 'the company' offices etc. as may be deemed appropriate;
 - XII. to propose investment scenarios relating to Industrial Estate(s) development to Government;
 - XIII. to promote the establishment of common technical facility centers for up gradation of technologies used by the occupier(s) of Industrial Estate(s);
 - XIV. appoint boards, committees, sub-committees and panels, consisting of persons who may or may not be Members of "The Company" or employees of "The Company" to deal with any specific task as may be determined from time to time and to confirm the appointment of Legal Advisor appointed by the Chairman;

- XV. to impose and recover fees and charges for the services rendered by "The Company"; and
 - XVI. to contract out operational and management functions as and when required, to reputable firms or companies;
58. BOD may by resolution delegate such administrative, financial and other powers to the Chairman, Chief Executive, committees, sub-committees, panels and boards or any other officer of "The Company" as it may consider necessary and proper, subject to the condition that action taken by them under the powers so delegated, shall have to be confirmed and/or ratified in the next meeting of BOD.

CHAIRMAN

59. A. The Chairman shall be nominated by the "Government".
- B. The Chairman shall not be paid any remuneration for his services, but shall be provided all secretarial/material/ technical support in order to facilitate the efficient handling of "The Company". He will also be provided boarding, lodging, travelling and transportation facilities and shall be reimbursed for out of pocket expenses.
60. The Chairman shall be responsible *inter alia* for:
- I. coordinating and exercising general supervision over all activities of "The Company"; and
 - II. any other task as may be delegated by BOD.

CHIEF EXECUTIVE OFFICER (CEO):

- 60 A. a. The CEO shall be a contractual employee to be hired for a period of three years renewable term. He shall be duly selected through an open competitive selection process by the BOD from private sector having engineering/management qualification and experience of at least 10 years managing industrial projects, and appointed as such in accordance with terms and conditions of his appointment to be determined by BOD.
- b. The CEO shall work under the directions of the BOD through Chairman and he shall be responsible for day-to-day management and administration of "The Company". Without prejudice to the generality of the foregoing, he shall be responsible:
- I. to determine powers, duties and fix salaries or emoluments of the managers, secretaries, officers, clerks and employees, either permanent or temporary and to require security in such instances and to such amount as deemed appropriate;
 - II. to prescribe duties of all employees and staff of "The Company";
 - III. to make, draw, endorse, sign, accept, negotiate and give cheques, bills of lading, drafts, orders, bills of exchange, promissory notes and other negotiable instruments in the amount(s) and manner as allowed/approved by BOD;

- IV. to institute, conduct, defend or abandon any legal proceedings by or against "The Company" in consultation with Legal Advisor or otherwise concerning the affairs of "The Company" and also to compound and allow time for payment or satisfaction of any debt due and of any claim or demand by or against "The Company";
- V. proper administration of the affairs, "Funds" and resources of "The Company";
- VI. to secure fulfillment of any contract, agreement or engagement entered into by "The Company" by mortgage or charge of all or any of the properties of "The Company" from time to time or in such manner as he may think fit in the interest of "The Company";
- VII. to appoint and to remove or suspend managers, secretaries, officers, clerks and employees, either permanent or temporary, and to determine their powers, duties and fix their salaries or emoluments and to require security in such instances and to such amount as deemed appropriate;
- VIII. to refer any claims or demands by or against "The Company" to arbitration and observe and perform the awards, in consultation with Legal Advisor;
- IX. to exercise supervision and disciplinary control over the work and conduct of all employees of "The Company" in accordance with Human Resource and Administration Policy/Rules/Regulations approved by the BOD;
- X. to delegate any of his functions to any officer of "The Company" with permission of the BOD;
- XI. any other task assigned by BOD.

POWERS AND DUTIES OF BOD

61. The business of "The Company" shall be managed by BOD, who may exercise all such powers of "The Company" as are required by the "Ordinance".

RESOURCES OF "THE COMPANY"

62. The resources of "The Company" shall consist of the following:
 - I. grants made by "Government";
 - II. fee and charges imposed by "The Company" for services rendered by it; and
 - III. income and receipt from other sources;
63. "The Company" may in furtherance of its objectives;
 - I. Invest and deal with "Funds" and monies of "The Company" according to "These Presents";
 - II. borrow and raise resources for "The Company" according to "These Presents";

- III. draw, accept, make, endorse, sign, negotiate, deposit, promissory notes, bills of exchange, cheques or any other negotiable instruments; and
- IV. create, with the permission of "Government", a reserve company, sinking company, insurance company or any other special company whether for depreciation, repair, improvement, extension or maintenance of any of the properties or rights of "The Company" and/or for recouping wasting assets and for any other purposes for which "The Company" deems it expedient or proper to create or maintain any such company or companies.
64. All properties of "The Company", moveable or immovable, shall vest in "The Company" and shall be administered by Chief Executive Officer, on behalf of "The Company" within the parameters set by "The Company" in its General Meeting or otherwise as directed by BOD.
65. "The Company" may purchase, hire, lease, exchange or otherwise acquire property, moveable or immovable, tangible or intangible (including copyrights, patents and intellectual properties) which may be necessary or convenient for the purpose of "The Company" and construct, alter and/or maintain such buildings and works as may be necessary for carrying out the objects of "The Company", provided that for acquisition or disposal of immovable property through any mode, prior permission of "Government" shall be mandatory.
66. The income and the property of "The Company", however derived, shall be applied towards the promotion and furtherance of the objectives of "The Company" as set forth in the Memorandum of Association hereto annexed. Save as otherwise provided elsewhere, no portion of the income and property of "The Company" shall be paid or transferred directly or indirectly by way of dividend or by way of profit to persons who at any time are or have been "Members" of "The Company" or to any of them or to any person claiming through them provided that nothing herein shall prevent the payment in good faith any remuneration to any employee or other person in return for services rendered to "The Company" or for traveling allowance, and other similar out of pocket expenses.
67. A. All funds should be paid into "The Company's" account(s) with the bank(ers) of "The Company" and shall not be withdrawn except by cheque signed by authorized representatives in accordance with the procedure to be "Prescribed";
- B. Unless otherwise authorized by BOD, no new account in the name of "The Company" shall be opened.

THE SEAL

68. The "Seal" shall not be affixed to any instrument except by the authority of a resolution of the BOD and in the presence of at least two members of BOD or such other persons as BOD may appoint for the purpose and they shall sign every instrument to which the "Seal" is affixed in their presence.

ACCOUNTS

69. The BOD shall cause to be kept proper books of accounts as required under section 230 of the "Ordinance".
70. The books of account shall be kept at the "Office" or at such other place as BOD shall think fit and shall be open to inspection by the members of BOD during business hours.
71. BOD shall from time to time determine whether and to what extent and at what time and places and under what conditions or regulations, the accounts and books or papers of "The Company" or any of them shall be open to the inspection of Members not being members of BOD and no Member (not being a member of BOD) shall have any right of inspecting any account and book or papers of "The Company" except as conferred by law or authorized by BOD or by "The Company" in General Meeting.
72. BOD shall cause to be prepared and to be laid before "The Company" in General Meeting such profit and loss accounts or Income and expenditure accounts and balance-sheets duly audited and reports as are required by sections 233 and 236 of the "Ordinance".
73. A balance-sheet, profit and loss account, income and expenditure account and other reports referred to in Article 69 ~~supra~~ shall be made out in every year and laid before "The Company" in the Annual General Meeting and made up to a date not more than four (04) months before such meeting. The balance-sheet and profit and loss account or income and expenditure account shall be accompanied by a report of the Auditors of "The Company" and the report of BOD.
74. A copy of the balance-sheet and profit and loss account or income and expenditure account and reports of BOD and Auditors shall, at least twenty one days preceding the meeting be sent to the persons entitled to receive notices of General Meetings in the manner in which notices are to be given hereunder.
75. BOD shall in all respects comply with the provisions of sections 230 to 236 of the "Ordinance".

AUDIT

76. The appointment and duties of the auditor(s) shall be regulated in accordance with the "Ordinance".
77. A. "The Company" at each Annual General Meeting shall appoint an auditor(s) being chartered accountant(s) to hold office until the next Annual General Meeting and the following provisions shall have effect, that is to say:

If an appointment of an auditor(s) is not made at an Annual General Meeting, the Securities and Exchange Commission may appoint an auditor(s) as per provisions of the "Ordinance".

1. A member of BOD or an officer of "The Company", or a partner of or person in the employment of such member of BOD or officer or any person, indebted to "The Company" shall not be appointed auditor of "The Company".

- II. If any person after being appointed auditor becomes indebted to "The Company", his appointment shall thereupon be terminated.
 - III. The First Auditor(s) of "The Company" may be appointed by BOD within 60 days of the date of incorporation and auditor(s), if so appointed, shall hold office until the first Annual General Meeting, unless previously removed by a resolution of "The Company" in General Meeting in which "Member" of "The Company" may appoint auditor(s) at such a meeting.
 - IV. Retiring auditor(s) shall be eligible for re-appointment.
 - V. No person other than a retiring auditor(s) shall be capable of being appointed to the office of the auditor at the Annual General Meeting unless notice of an intention to nominate him be given to "The Company" not less than fourteen days before the day fixed for the holding of such Annual General Meeting and upon receipt of such notice, the provisions of the "Ordinance" shall be complied with.
- B. Any other audit of "The Company" shall be conducted as provided in the "Ordinance".
78. The remuneration of the auditor(s) shall be fixed by "The Company" in the General Meeting except that the remuneration of any auditor(s) appointed before the first Annual General Meeting or to fill any casual vacancy may be fixed by BOD.
79. Every auditor of "The Company" shall have a right of access at all times to the books, assets and accounts and vouchers of "The Company" and shall be entitled to require from the members of BOD and officers of "The Company" such information and explanation as may be necessary for the performance of duties of the auditor(s) and auditor(s) shall make a report to Members of "The Company" on the accounts examined by them, and on every balance-sheet, income and expenditure account laid before "The Company" in the General Meeting, during their tenure of office and the report shall state whether or not they have obtained all information and explanations they have required and whether or not in their opinion the balance-sheet, is in conformity with the law and whether or not such balance-sheet, and income and expenditure account, exhibit true and correct view of the state of "The Company's" affairs according to the best of their information and explanations given to them as shown by the books of "The Company" and whether or not in their opinion the books of accounts have been kept by "The Company" as required by the "Ordinance"; where any of the matters referred to herein above and answered in the negative or with a qualification, the report shall state the reasons for such answers and the report shall be attached to the balance-sheet, income and expenditure account and such report shall be read before "The Company" in a General Meeting and shall be open to inspection by any "Member".
80. The auditor(s) shall be entitled to receive notice of and to attend all General Meetings of "The Company".
81. Every account when audited and approved by the General Meeting shall be conclusive except as regards any error discovered therein within three months after the

approval thereof. Whenever any such error is discovered within that period, the account shall forthwith be corrected and henceforth shall be conclusive.

NOTICE

82. A notice may be given by "Secretary" to any "Member" either personally or by sending it by post to him to his registered address.
83. Where a notice is sent by post, service of the notice shall be effected by properly addressing, pre-paying and posting a letter containing the notice and unless the contrary is proved, notice shall be deemed to have been effected at the time at which the letter would be delivered in the ordinary course of post.
84. Notice of every General Meeting shall be given in a manner described supra to every "Member".

INDEMNITY

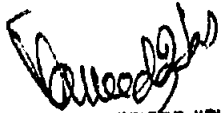
85. Every "Member" of "The Company" and BOD, the Chairman, Chief Executive Officer or any other officer or employee of "The Company" shall be indemnified by "The Company" against all costs, losses which they may incur or become liable to pay by reason of any contract entered into or act or deed done by them in discharge of their duties in good faith and any loss occasioned by any error of judgment, damage or misfortune which may happen in the execution of their duties in connection with affairs of "The Company".

POWER OF GOVERNMENT

86. Power to authorize the development, and up-gradation of existing or new "Industrial Estate(s)" shall vest in the "Government".

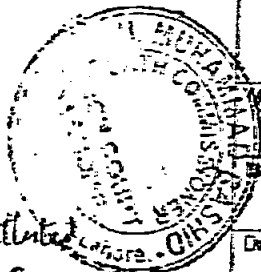
AMENDMENT

87. "These Presents" may, subject to clause 7 of the Memorandum of Association, be amended, modified, substituted, altered or repealed by a three fourth majority of the voting strength of the "Members" present and voting on a Special Resolution for the purpose in an Extraordinary General Meeting of the "Members", provided that a notice "In Writing" specifying the intention to propose the resolution as a Special Resolution shall have been served on "Members" of "The Company" at least twenty-one days prior to the meeting.


DISTRICT OFFICER (IPWM)
For Registrar Joint Stock Companies
Lahore

We, the several persons, whose names and addresses are hereunder subscribed, are desirous of being formed into a Company in pursuance of these Articles of Association.

Name and surname (present and former in full and block letters)	Father's/Husband's name in full	Nationality/Former Nationality	Occupation	Residential address in full	Signature
Monsin M. Syed	Syed M. Musa	Pakistani	Engineer	71-S, Defence Phase-II, Lahore Cant.	[Signature]
Mr. Fayyaz Bashir	Bashir Ahmad	Pakistani	Secretary Industries, Commerce & Investment	7-Akman Road, GDR, Lahore.	[Signature]
Mr. Khawaja Muhammad Owais	Khawaja Khulca Bakhs	Pakistani	Industrialist	House No. 2, Nisar Colony, Kashina Dastgir, Lahore.	[Signature]
Mr. Sikander Mustafa Khan	Bashir A. Khan	Pakistani	Chairman, MTFA	House No. 30-D, Sawar Road, Lahore Cantt., Lahore.	[Signature]
Mr. Sabir P. Chohan	Dr. M. A. Chohan	Pakistani	Engineer	House No. 1E, St. No. 63, Sector F7/3, Islamabad.	[Signature]
Mr. Akmal Hyder	Dr. M. M. Naq	Pakistani	Businessman	House No. L-41, Gulberg-F, Lahore.	[Signature]
Mr. Syed Nazeem Hashmi	Syed Nazeem Hashmi	Pakistani	Chief Executive, Thermosol Industries (Pvt.) Ltd.	House No. 638 Block-3 Sector C-I, Township, Lahore.	[Signature]
Mr. M. I. Khurram	Mr. Barkat Ali	Pakistani	Chief Executive, Textile Wear	45-E4 Gulberg-III, Lahore.	[Signature]
Major (R) Shah Nawaz Bader	S. M. Bader	Pakistani	Secretary Labour and Human Resources	House No. 85 GDR-III, Shadman, Lahore. House No. 224 F-10/3, Islamabad.	[Signature]
Mr. Kamran Lashari	Sardar Abdul Wajeez Khan Lashari	Pakistani	Secretary Environment Protection	House No. 18 Faten Sher Road, Mozaing, Lahore.	[Signature]
Mr. Zaheer Ahmed Khan	Naseer Ahmad Khan	Pakistani	Engineer	122-R, Phase-II, Lahore.	[Signature]
Dr. Faisal Ean	Abdul Ean	Pakistani	Economist	House No. 29 Ghazi Road, Karachi, Monahan Sadkar Bazar, Lahore.	[Signature]



Attested

DISTRICT OFFICER

Enterprises & Investment Promotion
For Proposers and Block Companies
Lahore District Office

Dated the _____ day of _____

WITNESS TO ABOVE SIGNATURES

Full Name: Hafiza Ayesha

Signature: [Signature]

Father's Name: S. Nadeem Hussain

Occupation: [Occupation]

Full Address: 109 BK, LDA, EMTS

ATTESTED

[Signature]
District Officer

Enterprises & Investment Promotion
for Registrar Joint

SAND
CONSULTANTS



ANNUAL REPORT

Independent Auditor's Report

To the members of Punjab Industrial Estate Development and Management Company

Report on the Audit of the Financial Statements

Opinion

We have audited the annexed financial statements of Punjab Industrial Estate Development and Management Company (the Company), which comprise the statement of financial position as at June 30, 2018, and the statement of income and expenditure and other comprehensive income, the statement of changes in equity, the statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies and other explanatory information, and we state that we have obtained all the information and explanations which, to the best of our knowledge and belief, were necessary for the purposes of the audit.

In our opinion and to the best of our information and according to the explanations given to us, the statement of financial position, statement of profit or loss and other comprehensive income, the statement of changes in equity and the statement of cash flows together with the notes forming part thereof conform with the accounting and reporting standards as applicable in Pakistan and give the information required by the Companies Act, 2017 (XIX of 2017), in the manner so required and respectively give a true and fair view of the state of the Company's affairs as at June 30, 2018 and of the surplus and other comprehensive income, the changes in equity and its cash flows for the year then ended.

Basis for Opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs) as applicable in Pakistan. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Company in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants as adopted by the Institute of Chartered Accountants of Pakistan (the Code) and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of Matter

As disclosed in note 13 to the financial statements, the Company has received various lands for estates development in the form of loan from Government of Punjab. These loans have been classified as current liabilities due to the fact that terms of these loans have not been formalized with the Finance Department of Government of Punjab through agreements.

GTAK



Information Other than the Financial Statements and Auditor's Report Thereon

Management is responsible for the other information. The other information comprises directors' report, but does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management and Board of Directors for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with the accounting and reporting standards as applicable in Pakistan and the requirements of Companies Act, 2017 (XIX of 2017) and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so.

Board of directors are responsible for overseeing the Company's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs as applicable in Pakistan will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with ISAs as applicable in Pakistan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

GP

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**PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
OWNED BY GOVT. OF PUNJAB**

Company Secretary

**SAMD
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Grant Thornton Anjum Rahmar

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Review Report to the Members

On the Statement of Compliance with the Public Sector Companies (Corporate Governance) Rules, 2013

We have reviewed the enclosed Statement of Compliance with the best practices contained in the Public Sector Companies (Corporate Governance) Rules, 2013 (the Rules) prepared by the Board of Directors of *Punjab Industrial Estate Development and Management Company* (the Company) for the year ended June 30, 2018.

The responsibility for compliance with the Rules is that of the Board of Directors of the Company. Our responsibility is to review, to the extent where such compliance can be objectively verified, whether the Statement of Compliance reflects the status of the Company's compliance with the provisions of the Rules and report if it does not and to highlight any non-compliance with the requirements of the Rules. A review is limited primarily to inquiries of the Company's personnel and review of various documents prepared by the Company to comply with the Rules.

As a part of our audit of the financial statements we are required to obtain an understanding of the accounting and internal control systems sufficient to plan the audit and develop an effective audit approach. We are not required to consider whether the Board of Directors' statement on internal control covers all risks and controls or to form an opinion on the effectiveness of such internal controls, the Company's corporate governance procedures and risks.

The Rules requires the Company to place before the Audit Committee, and upon recommendation of the Audit Committee, place before the Board of Directors for their review and approval its related party transactions distinguishing between transactions carried out on terms equivalent to those that prevail in arm's length transactions and transactions which are not executed at arm's length price and recording proper justification for using such alternate pricing mechanism. We are only required and have ensured compliance of this requirement to the extent of the approval of the related party transactions by the Board of Directors upon recommendation of the Audit Committee. We have not carried out any procedures to determine whether the related party transactions were undertaken at arm's length price or not.

GRK

Chartered Accountants
Member of Grant Thornton International Ltd
Offices in Karachi & Islamabad

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PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
OWNED BY: GOVT. OF PUNJAB

Company Secretary

SAMD
CONSULTANTS

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with the board of directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on Other Legal and Regulatory Requirements

Based on our audit, we further report that in our opinion:

- a) proper books of account have been kept by the Company as required by the Companies Act, 2017 (XIX of 2017);
- b) the statement of financial position, the statement of income and expenditure and other comprehensive income, the statement of changes in equity and the statement of cash flows together with the notes thereon have been drawn up in conformity with the Companies Act, 2017 (XIX of 2017) and are in agreement with the books of account and returns;
- c) investments made, expenditure incurred and guarantees extended during the year were for the purpose of the Company's business; and
- d) no zakat was deductible at source under the Zakat and Ushr Ordinance, 1980 (XVIII of 1980).

Other Matter:

The financial statements of the Company for the year ended June, 2017 were audited by another auditor who expressed an unmodified opinion on those statements on November 25, 2019.

The engagement partner on the audit resulting in this independent auditor's report is Imran Afzal.


GRANT THORNTON
Lahore


Dated: July 5, 2021

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PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
OWNED BY: GOVT. OF PUNJAB
Company Secretary

 **SAMD**
CONSULTANTS

Based on our review, nothing has come to our attention which causes us to believe that the Statement of Compliance does not appropriately reflect the Company's compliance, in all material respects, with the best practices contained in the Rules as applicable to the Company for the year ended June 30, 2018.


Grant Thornton Anjum Rahman
Chartered Accountants
City: Lahore
Dated: July 5, 2021

ATTESTED TO BE TRUE COPY

PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
OWNED BY: GOVT. OF PUNJAB

Company Secretary

 **SAMD**
CONSULTANTS

F

LAST ANNUAL RETURN

THE COMPANIES ACT, 2017
THE COMPANIES (GENERAL PROVISIONS AND FORMS) REGULATIONS, 2018
[Section 130(1) and Regulations 4]

ANNUAL RETURN OF COMPANY HAVING SHARE CAPITAL

PART-I

(Please complete in typescript or in bold block capitals.)

1.1 CUIN (Registration Number)

R	P	-	3	7	9
---	---	---	---	---	---

1.2 Name of the Company

Punjab Industrial Estate Development & Management Company

1.3 Fee Payment Details 1.3.1 Challan No. 1.3.2

--

Amount

500/-

dd

mm

yyyy

1.4 Form A made up to

0	6
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0	8
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2	0	2	1
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2.4 Date of AGM

0	6
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0	8
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2	0	2	1 *
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* The AGM was required to be held on or before 28-10-2018, however the same was held on 06-08-2021 under directions of the Registrar of Companies u/s 147 of the Companies Act, 2017.

PART-II

2. **Section-A**

2.1 Registered office address:

Commercial Area (North), Sundar Industrial Estate, Sundar Raiwind Road, Lahore.

2.2 Email Address:

corporate@pie.com.pk

2.3 Office Tel. No:

042-35297203-06

2.4 Office Fax No.:

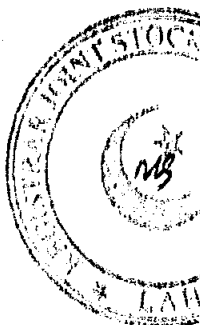
042-35297207

2.5 Principal line of business:

To establish new industrial estates and to upgrade those existing industrial estates as assigned by the Government.

2.6 Mobile No. of Authorized officer (Chief Executive/ Director/Company Secretary/ Chief Financial Officer)

0320-0840648



2.7.

2.82.9

2.10 Chief Executive Officer:

2.11 Chief Financial Officer:

2.12 Secretary:

2.13 Legal Advisor:

2.14 Particulars of Auditor(s)

[illegible]

5

2.16 Particulars of Share Registrar (if applicable)

Name	N.A
Address	N.A
e-mail	N.A

Section-B:

2.16 List of Directors as on the date annual return is made:

Sr. #	Name	Residential Address	Nationality	NIC No. (Passport No. if foreigner)																Date of Appointment or election
1	Syed Nabeel Hashmi	Thermosole Industries (Pvt.) Ltd. 140 Main Industrial Area, Kot-Lakhat, Lahore.	Pakistani	3	5	2	0	2	-	2	6	9	8	5	7	4	-	5	Govt. of Punjab constituted Board of Directors vide Notification # AEA-I-15-22/2002(P-V) of ICI & SD Department dated 4-9-2019	
2	Ahsan Mahmood Butt	M/s FAS Tube Mills & Engineering, Plot # 457-460, Sundar Industrial Estate, Lahore	Pakistani	3	5	2	0	1	-	1	6	0	6	2	5	8	-	9	-do-	
3	Muhammad Anees Khawaja	Mehr Manzil, O/S Lohari Gate Multan.	Pakistani	3	6	3	0	2	-	4	6	4	8	2	8	5	-	3	-do-	
4	Syed Tariq Siraj Jafri	68-Block-B, Model Town, Lahore	Pakistani	3	5	2	0	2	-	2	5	9	5	1	7	4	-	1	-do-	
5	Shahid Hussain Tarar	House # 12/13, A/2, WAPDA Town, Gujranwala.	Pakistani	3	4	1	0	1	-	9	5	3	4	6	8	9	-	9	-do-	
6	Khawaja Arif Qasim	125-A, Quaid-e-Azam Industrial Estate, Kot-Lakhat, Lahore.	Pakistani	3	5	2	0	2	-	4	6	0	1	9	2	8	-	1	-do-	

7	Usman Aslam Malik	M/s Koretec Auto Industries 16-KM, Multan Road, Lahore.	Pakistani	3	5	2	0	1	-	1	5	5	5	4	0	9	-	1	-do-
8	Dr. Sumaira Rehman	Superior University, 17-KM Mian Raiwind Road, Lahore.	Pakistani	3	5	2	0	2	-	9	7	6	0	8	5	3	-	0	-do-
9	Dr. Erfa Iqbal Chief Executive Officer PBIT	Punjab Board of Investment & Trade, 23 Alkman road GOR-1, Lahore.	Pakistani	4	2	3	0	1	-	7	7	2	5	4	3	6	-	8	27-11-2020
10	Muhammad Abdullah Khan Sumbal, Secretary Finance Department	Finance Dept. Civil Secretariat Lahore.	Pakistani	3	5	2	0	2	-	2	9	9	4	9	2	3	-	9	30-04-2019
11	Wasif Khurshid, Secretary ICI&SD Department	ICI&SD Dept. Old P&D Building, 2 Bank Road, Lahore.	Pakistani	3	6	3	0	2	-	9	1	7	1	7	4	0	-	9	06-11-2020
12	Dr. Ahmed Javed Qazi, Secretary Labour & Human Resource	Labour & Human Resource Dept., 2 Bank Road, Lahore.	Pakistani	3	5	2	0	2	-	2	8	6	5	5	8	2	-	5	25-09-2020
13	All Salman Siddique Chairperson TEVTA	96-Gulberg Road, Lahore.	Pakistani	3	5	2	0	2	-	8	7	0	6	5	2	8	-	9	08-08-2019
14	Ali Muazzam Syed	Commercial Area, Sundar Industrial Estate, Lahore.	Pakistani	3	5	2	0	2	-	8	2	7	9	6	8	6	-	3	01-02-2021

2.17 List of members and Debenture holders on the date up to which this Form is made:

S#	Folio #	Name	Address	Nationality	No. of shares held	NIC No. (Passport No. if foreigner)											
Members		Government of the Punjab (through Industries, Commerce, Investment & Skill Development Department).	ICI&SD Dept. Old P&D Building, 2 Bank Road, Lahore.	NIL	5,000,000												
	Debenture holders		NIL	NIL	NIL												

[Signature]

Use separate sheet, if necessary

2.18 Transfer of shares (debentures) since last Form A was made:

Sr. #	Name of Transferor	Name of Transferee	Number of shares transferred	Date of registration of transfer
	NIL	NIL	NIL	NIL

Use separate sheet, if necessary

PART-III

3.1

Declaration:

I do hereby solemnly; and sincerely declare that the information provided in the form is:

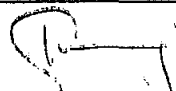
- true and correct to the best of my knowledge, in consonance with the record as maintained by the Company and nothing has been concealed; and
- hereby reported after complying with and fulfilling all requirements under the relevant provisions of law, rules, regulations, directives, circulars and notifications whichever is applicable.

3.2 Name of Authorized Officer with designation /Authorized Intermediary

M. Shafiq ur Rehman

Acting Company Secretary

3.3 Signatures



3.4 Registration No of Authorized Intermediary, if applicable

3.5

Date

Day

Month

Year

1	2
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0	8
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2	0	2	1
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ACKNOWLEDGEMENT SLIP

114(1) (Return of Income filed voluntarily for complete year) Registration No: 1962854

Tax Year : 2021

Period : 01-Jul-2020 - 30-Jun-2021

Medium : Online

Due Date : 31-Dec-2021

Name: PUNJAB INDUSTRIAL ESTATE

Address: DEVELOPMENT AND MANAGEMENT

INDUSTRIAL ESTATE, RAIWIND ROAD,

Lahore Iqbal Town

Contact No: 00923200840690

Document Date 31-Dec-2021



100000115357133

Description	Code	Amount
Refundable Income Tax	9210	2,683,607
Taxable Income	9100	904,998,757
Total Income	9000	904,998,757

This is not a valid evidence of being a "filer" for the purposes of clauses (23A) and (35C) of sections 2 and 181A.



Federal Board of Revenue
Revenue Division - Government of Pakistan



114(1) (Return of Income filed voluntarily for complete year) Registration No: 1962054

Tax Year : 2021

Period : 01-Jul-2020 - 30-Jun-2021

Medium : Online

Due Date : 31-Dec-2021

Name: PUNJAB INDUSTRIAL ESTATE

Address: DEVALI CHANAYAN AND MOYAMMENT DAR

INDUSTRIAL ESTATE, RAIWIND ROAD,

Lahore Iqbal Town

Contact No: 00923200840690

Document Date 31-Dec-2021



100000115357133

Manufacturing / Trading Items				
Description	Code	Total Amount	Amount Exempt from Tax / Subject to Fixed / Final Tax	Amount Subject to Normal Tax
Income / (Loss) from Business	3000	431,211,942	0	431,211,942
Net Revenue (excluding Sales Tax, Federal Excise, Brokerage, Commission, Discount, Freight Outward)	3029	9,783,495,531	0	9,783,495,531
Gross Revenue (excluding Sales Tax, Federal Excise)	3008	9,783,495,531	0	9,783,495,531
Gross Domestic Sales / Services Fee	3004	9,783,495,531	0	9,783,495,531
Cost of Sales / Services	3030	9,202,572,659	0	9,202,572,659
Direct Expenses	3089	9,202,572,659	0	9,202,572,659
Salaries / Wages	3071	237,559,253	0	237,559,253
Power	3073	19,708,295	0	19,708,295
Repair / Maintenance	3077	131,928,469	0	131,928,469
Other Direct Expenses	3083	8,787,739,348	0	8,787,739,348
Accounting Depreciation	3088	25,637,294	0	25,637,294
Gross Profit / (Loss)	3100	580,922,872	0	580,922,872
Other Revenues				
Description	Code	Total Amount	Amount Exempt from Tax / Subject to Fixed / Final Tax	Amount Subject to Normal Tax
Other Revenues	3129	1,177,933,720	0	1,177,933,720
Fee for Other Services	3102	370,508,807	0	370,508,807
Profit on Debt	3106	473,786,815	0	473,786,815
Others	3128	333,638,098	0	333,638,098
Management, Administrative, Selling & Financial Expenses				
Description	Code	Total Amount	Amount Exempt from Tax / Subject to Fixed / Final Tax	Amount Subject to Normal Tax

114(1) (Return of Income filed voluntarily for complete year)

Registration No: 1962864

Tax Year : 2021

Name: PUNJAB INDUSTRIAL ESTATE

Period : 01-Jul-2020 - 30-Jun-2021

 Address: DEVELOPMENT AND MANAGEMENT
 INDUSTRIAL ESTATE, RAIWIND ROAD,

Medium : Online

Due Date : 31-Dec-2021

Lahore Iqbal Town

Contact No: 00923200840690

Document Date 31-Dec-2021



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Management, Administrative, Selling & Financial Expenses				
Description	Code	Total Amount	Amount Exempt from Tax / Subject to Fixed / Final Tax	Amount Subject to Normal Tax
Management, Administrative, Selling & Financial Expenses	3199	873,058,862	0	873,058,862
Rates / Taxes / Cess	3152	6,679,862	0	6,679,862
Salaries / Wages / Perquisites / Benefits	3154	240,978,298	0	240,978,298
Traveling / Conveyance / Vehicles Running / Maintenance	3155	6,505,983	0	6,505,983
Electricity / Water / Gas	3158	9,443,776	0	9,443,776
Repair / Maintenance	3165	11,683,524	0	11,683,524
Stationery / Printing / Photocopies / Office Supplies	3166	6,386,008	0	6,386,008
Advertisement / Publicity / Promotion	3168	3,788,919	0	3,788,919
Insurance	3170	8,173,526	0	8,173,526
Professional Charges	3171	8,509,206	0	8,509,206
Profit on Debt (Financial Charges / Markup / Interest)	3172	487,078,206	0	487,078,206
Other Indirect Expenses	3180	37,299,058	0	37,299,058
Irrecoverable Debts Written off	3186	114,650	0	114,650
Accounting Amortization	3197	66,284	0	66,284
Accounting Depreciation	3198	46,351,562	0	46,351,562
Accounting Profit / (Loss)	3200	885,797,730	0	885,797,730
Inadmissible / Admissible Deductions				
Description	Code	Total Amount	Amount Exempt from Tax / Subject to Fixed / Final Tax	Amount Subject to Normal Tax
Inadmissible Deductions	3239	129,893,973	0	129,893,973
Other Inadmissible Deductions	3234	57,838,833	0	57,838,833
Add Backs Accounting Amortization	3237	66,284	0	66,284
Add Backs Accounting Depreciation	3238	71,988,856	0	71,988,856
Admissible Deductions	3259	584,479,761	0	584,479,761



Federal Board of Revenue
Revenue Division - Government of Pakistan



114(1) (Return of Income filed voluntarily to complete year)

Registration No. 1962054

Tax Year : 2021

Period : 01-Jul-2020 - 30-Jun-2021

Medium : Online

Due Date : 31-Dec-2021

Name: PUNJAB INDUSTRIAL ESTATE

Address: PUNJAB INDUSTRIAL ESTATE MANAGEMENT

INDUSTRIAL ESTATE, RAIWIND ROAD,

Lahore Iqbal Town

Contact No: 00923200840690

Document Date 31-Dec-2021



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Inadmissible / Admissible Deductions				
Description	Code	Total Amount	Amount Exempt from Tax / Subject to Fixed / Final Tax	Amount Subject to Normal Tax
Tax Amortization for Current Year	3247	29,702	0	29,702
Tax Depreciation / Initial Allowance for Current Year	3248	68,723,202	0	68,723,202
Other Admissible Deductions	3254	515,726,857	0	515,726,857
Adjustments				
Description	Code	Total Amount	Amount Exempt from Tax / Subject to Fixed / Final Tax	Amount Subject to Normal Tax
Income / (Loss) from Business before adjustment of Admissible Depreciation / Initial Allowance / Amortization for current / previous years	3270	0	0	499,964,846
Business Assets / Equity / Liabilities				
Description	Code	Amount		
Total Assets	3349	26,329,653,892	0	
Land	3301	12,480,403	0	
Building (all types)	3302	144,242,368	101,643,999	
Plant / Machinery / Equipment / Furniture (including fittings)	3303	349,065,030	0	
Motor Vehicle	3304	82,141,423	0	
Intangible	3305	216,667	0	
Intangible	3305	216,667	109,749	7
Intangible	3305	0	243,750	3
Capital Work in Progress	3308	563,077,077	0	
Advances / Deposits / Prepayments	3312	218,870,323	0	
Trade Debtors / Receivables	3313	1,409,834,244	0	
Inventories	3314	13,164,804,109	0	

114(1) (Return of Income filed voluntarily for complete year)

Registration No: 1962854

Tax Year : 2021

Name: PUNJAB INDUSTRIAL ESTATE

Period : 01-Jul-2020 - 30-Jun-2021

Address: DEVELOPMENT AREA (MOTAFAT), BUNDAR

Medium : Online

INDUSTRIAL ESTATE, RAIWIND ROAD,

Due Date : 31-Dec-2021

Lahore Iqbal Town

Contact No: 00923200840690

Document Date 31-Dec-2021



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Business Assets / Equity / Liabilities

Description	Code	Amount		
Stocks / Stores / Spares	3315	125,077,004	0	
Short Term Investments	3316	7,390,000,000	0	
Short Term Advances / Deposits / Prepayments	3317	493,117,930	0	
Cash / Cash Equivalents	3319	1,557,385,692	0	
Other Assets	3348	819,341,622	0	
Total Equity / Liabilities	3399	26,329,653,892	0	
Issued, Subscribed & Paid up capital	3352	50,000,000	0	
Accumulated Profits	3364	5,843,826,479	0	
Long Term Borrowings / Debt / Loan	3371	2,353,862,063	0	
Deferred Liabilities	3373	1,341,207,569	0	
Current Portion of Long Term Liabilities	3382	7,718,038,594	0	
Advances / Deposits / Accrued Expenses	3383	5,951,177,478	0	
Trade Creditors / Payables	3384	2,070,288,925	0	
Other Liabilities	3398	1,001,252,784	0	

Receipts / Deductions

Description	Code	Total Amount	Amount Exempt from Tax / Subject to Fixed / Final Tax	Amount Subject to Normal Tax
Income / (Loss) from Other Sources	5000	473,786,815	0	473,786,815
Receipts from Other Sources	5029	473,786,815	0	473,786,815
Profit on Debt (Interest, Yield, etc)	5003	473,786,815	0	473,786,815

Tax Credits

Description	Code	Eligible Amount	Ineligible Amount	Tax Credit
Tax Credits	9329	0	0	262,449,640
Tax Credit for Trust / Welfare Institution / Non-Profit Organization u/s 100C	9323	0	0	262,449,640



Federal Board of Revenue
Revenue Division - Government of Pakistan



114(1) (Return of Income filed voluntarily for complete year) Registration No. 1962954

Tax Year : 2021

Period : 01-Jul-2020 - 30-Jun-2021

Medium : Online

Due Date : 31-Dec-2021

Name: PUNJAB INDUSTRIAL ESTATE

Address: ~~DEVELOPMENT AREA MANAGEMENT~~
INDUSTRIAL ESTATE, RAIWIND ROAD,

Lahore Iqbal Town

Contact No: 00923200840690

Document Date 31-Dec-2021



100000115357133

Adjustable Tax				
Description	Code	Receipts / Value	Tax Collected / Deducted	Tax Chargeable
Adjustable Tax	640000	0	2,683,607	0
Profit on Debt u/s 151 from Bank Accounts / Deposits	64040002	0	210,518	0
Profit on Debt u/s 151 from Bank Accounts / Deposits - UBL - 192611900025	64040002	0	184,873	0
Profit on Debt u/s 151 from Bank Accounts / Deposits - BOP - 6580104437100015	64040002	0	25,645	0
Payment for Services u/s 153(1)(b) @8% u/c (42) of Part IV of Second Schedule	64060116	0	759,079	0
Rent of Property u/s 155	64080001	0	1,120,139	0
Rent of Property u/s 155 - BOP - CPA-456-3	64080001	0	91,584	0
Rent of Property u/s 155 - Meezan bank - -	64080001	0	847,056	0
Rent of Property u/s 155 - CMPAK LTD. (Zong) - -	64080001	0	181,499	0
Private Vehicle Tax u/s 234	64130003	0	246,632	0
Private Vehicle Tax u/s 234 - LEJ-18-1197 -	64130003	0	1,750	0
Private Vehicle Tax u/s 234 - LEJ-16-1140 -	64130003	0	3,124	0
Private Vehicle Tax u/s 234 - LEJ-16-1141 -	64130003	0	3,124	0
Private Vehicle Tax u/s 234 - LEJ-16-1239 -	64130003	0	9,043	0
Private Vehicle Tax u/s 234 - LEJ-16-1240 -	64130003	0	3,516	0
Private Vehicle Tax u/s 234 - LEJ-17-107 -	64130003	0	1,750	0
Private Vehicle Tax u/s 234 - LEJ-15-1532 -	64130003	0	20,000	0
Private Vehicle Tax u/s 234 - LEJ-15-1567 -	64130003	0	1,750	0
Private Vehicle Tax u/s 234 - LEJ-16-1149 -	64130003	0	1,750	0
Private Vehicle Tax u/s 234 - LEJ-12-1400 -	64130003	0	1,750	0
Private Vehicle Tax u/s 234 - LEJ-12-1331 -	64130003	0	1,750	0
Private Vehicle Tax u/s 234 - LEJ-14-1082 -	64130003	0	1,750	0
Private Vehicle Tax u/s 234 - LEJ-14-1193 -	64130003	0	1,750	0
Private Vehicle Tax u/s 234 - LEJ-14-1192 -	64130003	0	1,750	0
Private Vehicle Tax u/s 234 - LEJ-14-1194 -	64130003	0	1,750	0
Private Vehicle Tax u/s 234 - LEJ-14-1300 -	64130003	0	1,750	0
Private Vehicle Tax u/s 234 - LEJ-17-1508 -	64130003	0	13,375	0
Private Vehicle Tax u/s 234 - LEJ-14-1083 -	64130003	0	13,750	0

114(1) (Return of Income filed voluntarily for complete year)

Registration No: 1962854

Tax Year : 2021

Name: PUNJAB INDUSTRIAL ESTATE

Period : 01-Jul-2020 - 30-Jun-2021

Address: DEVELOPMENT AND MANAGEMENT

Medium : Online

INDUSTRIAL ESTATE, RAIWIND ROAD,

Due Date : 31-Dec-2021

Lahore Iqbal Town

Contact No: 00923200840690

Document Date 31-Dec-2021



100000115357133

Adjustable Tax				
Description	Code	Receipts / Value	Tax Collected / Deducted	Tax Chargeable
Private Vehicle Tax u/s 234 - LEJ-18-1047 -	64130003	0	10,000	0
Private Vehicle Tax u/s 234 - LEJ-18-1053 -	64130003	0	10,000	0
Private Vehicle Tax u/s 234 - LEJ-18-1230 -	64130003	0	1,750	0
Private Vehicle Tax u/s 234 - LEJ-18-1231 -	64130003	0	1,750	0
Private Vehicle Tax u/s 234 - LEJ-18-1232 -	64130003	0	1,750	0
Private Vehicle Tax u/s 234 - LEJ-15-1086 -	64130003	0	10,000	0
Private Vehicle Tax u/s 234 - LEJ-14-467 -	64130003	0	1,750	0
Private Vehicle Tax u/s 234 - LEJ-15-184 -	64130003	0	6,875	0
Private Vehicle Tax u/s 234 - LEJ-16-1411 -	64130003	0	10,000	0
Private Vehicle Tax u/s 234 - LEJ-17-1167 -	64130003	0	6,875	0
Private Vehicle Tax u/s 234 - LEJ-13-1294 -	64130003	0	3,325	0
Private Vehicle Tax u/s 234 - LEJ-16-1389 -	64130003	0	3,125	0
Private Vehicle Tax u/s 234 - LEJ-12-1573 -	64130003	0	7,200	0
Private Vehicle Tax u/s 234 - LEJ-12-1574 -	64130003	0	7,200	0
Private Vehicle Tax u/s 234 - LEJ-13-1288 -	64130003	0	7,200	0
Private Vehicle Tax u/s 234 - LEJ-17-1161 -	64130003	0	7,200	0
Private Vehicle Tax u/s 234 - LET-17-1834 -	64130003	0	1,000	0
Private Vehicle Tax u/s 234 - LEJ-17-1380 -	64130003	0	22,250	0
Private Vehicle Tax u/s 234 - LEJ-18-1037 -	64130003	0	22,250	0
Private Vehicle Tax u/s 234 - SAA-509 -	64130003	0	7,200	0
Private Vehicle Tax u/s 234 - New Ambulance -	64130003	0	1,500	0
Private Vehicle Tax u/s 234 - MNJ-14-118 -	64130003	0	6,250	0
Private Vehicle Tax u/s 234 - MNJ-19-122 -	64130003	0	5,000	0
Electricity Bill of Commercial / Industrial Consumer u/s 235 - 24112131005502U-LESCO	64140050	0	102,357	0
Electricity Bill of Commercial / Industrial Consumer u/s 235 - 24112131005503U-LESCO	64140050	0	19,454	0
Electricity Bill of Commercial / Industrial Consumer u/s 235 - 24112131005503U-LESCO	64140050	0	36,363	0
Electricity Bill of Commercial / Industrial Consumer u/s 235 - 24116111018502-LESCO	64140050	0	8,832	0
Electricity Bill of Commercial / Industrial Consumer u/s 235	64140050	0	5,600	0

Print Date: Tue, 5 Apr 2022 11:21:55

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Federal Board of Revenue
Revenue Division - Government of Pakistan



114(1) (Return of Income filed voluntarily for complete year)

Registration No. 1962054

Tax Year : 2021

Name: PUNJAB INDUSTRIAL ESTATE

Period : 01-Jul-2020 - 30-Jun-2021

Address: DEWALMORIAN AND MANAGEMENT

Medium : Online

INDUSTRIAL ESTATE, RAIWIND ROAD,

Due Date : 31-Dec-2021

Lahore Iqbal Town

Contact No: 00923200840690

Document Date 31-Dec-2021



100000115357133

Adjustable Tax				
Description	Code	Receipts / Value	Tax Collected / Deducted	Tax Chargeable
- 27151180006923-MEPCO	64140050	0	5,600	0
Electricity Bill of Commercial / Industrial Consumer u/s 235	64140050	0	22,768	0
- 28151180150835-MEPCO	64140050	0	6,180	0
Electricity Bill of Commercial / Industrial Consumer u/s 235	64140050	0	3,160	0
- 28151180001812-MEPCO	64140050	0	3,160	0
Electricity Bill of Commercial / Industrial Consumer u/s 235	64140050	0	3,160	0
- 03151380752201-MEPCO	64140050	0	3,160	0
Telephone Bill u/s 236(1)(a)	64150001	0	24,004	0
Telephone Bill u/s 236(1)(a) - PTCL - 042-35297202	64150001	0	123	0
Telephone Bill u/s 236(1)(a) - PTCL - 042-35297203	64150001	0	803	0
Telephone Bill u/s 236(1)(a) - PTCL - 042-35297204	64150001	0	240	0
Telephone Bill u/s 236(1)(a) - PTCL - 042-35297205	64150001	0	58	0
Telephone Bill u/s 236(1)(a) - PTCL - 042-35297206	64150001	0	5,334	0
Telephone Bill u/s 236(1)(a) - PTCL - 042-35297208	64150001	0	3	0
Telephone Bill u/s 236(1)(a) - PTCL - 042-35297082	64150001	0	1,044	0
Telephone Bill u/s 236(1)(a) - PTCL - 061-3537062	64150001	0	366	0
Telephone Bill u/s 236(1)(a) - PTCL - 061-6537062	64150001	0	732	0
Telephone Bill u/s 236(1)(a) - PTCL - 042-35297291	64150001	0	1,119	0
Telephone Bill u/s 236(1)(a) - PTCL - 042-35297292	64150001	0	3,145	0
Telephone Bill u/s 236(1)(a) - PTCL - 042-35297293	64150001	0	713	0
Telephone Bill u/s 236(1)(a) - PTCL - 042-35297080	64150001	0	3,783	0
Telephone Bill u/s 236(1)(a) - PTCL - 042-35297081	64150001	0	494	0

114(1) (Return of Income filed voluntarily for complete year)

Registration No: 1962054

Tax Year : 2021

Name: PUNJAB INDUSTRIAL ESTATE

Period : 01-Jul-2020 - 30-Jun-2021

Address: DEVELOPMENT AREA MANAGEMENT

Medium : Online

INDUSTRIAL ESTATE, RAIWIND ROAD,

Due Date : 31-Dec-2021

Lahore Iqbal Town

Contact No: 00923200840690

Document Date 31-Dec-2021



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Adjustable Tax

Description	Code	Receipts / Value	Tax Collected / Deducted	Tax Chargeable
Telephone Bill u/s 236(1)(a) - PTCL - 042-35297083	64150001	0	4,648	0
Telephone Bill u/s 236(1)(a) - PTCL - 042-35298581	64150001	0	351	0
Telephone Bill u/s 236(1)(a) - PTCL - 042-35297733	64150001	0	284	0
Telephone Bill u/s 236(1)(a) - PTCL - 042-35297733	64150001	0	161	0
Telephone Bill u/s 236(1)(a) - PTCL - 061-6537159	64150001	0	318	0
Telephone Bill u/s 236(1)(a) - PTCL - 061-6538139	64150001	0	285	0
Cellphone Bill u/s 236(1)(a)	64150002	0	206,182	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840604	64150002	0	2,040	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840607	64150002	0	3,018	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840608	64150002	0	2,395	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840609	64150002	0	3,330	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840613	64150002	0	2,849	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840615	64150002	0	2,713	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840617	64150002	0	2,318	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840619	64150002	0	1,945	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840620	64150002	0	2,738	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840621	64150002	0	2,064	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840624	64150002	0	1,119	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840627	64150002	0	1,758	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840628	64150002	0	1,870	0

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114(1) (Return of Income filed voluntarily for complete year)

Registration No. 1962854

Tax Year : 2021

Name: PUNJAB INDUSTRIAL ESTATE

Period : 01-Jul-2020 - 30-Jun-2021

Address: DEVELOPMENT AND MANAGEMENT

Medium : Online

INDUSTRIAL ESTATE, RAIWIND ROAD,

Due Date : 31-Dec-2021

Lahore Iqbal Town

Contact No: 00923200840690

Document Date 31-Dec-2021



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Adjustable Tax				
Description	Code	Receipts / Value	Tax Collected / Deducted	Tax Chargeable
	64150002	0	1,870	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840630	64150002	0	2,091	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840635	64150002	0	2,015	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840637	64150002	0	1,574	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840638	64150002	0	1,679	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840640	64150002	0	1,900	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840642	64150002	0	2,631	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840644	64150002	0	2,245	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840645	64150002	0	1,963	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840646	64150002	0	1,930	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840648	64150002	0	2,094	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840654	64150002	0	2,166	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840660	64150002	0	1,985	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840666	64150002	0	1,205	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840667	64150002	0	952	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840671	64150002	0	1,063	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840674	64150002	0	842	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840676	64150002	0	1,040	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840677	64150002	0	1,163	0

114(1) (Return of Income filed voluntarily for the year)

Registration No: 1962854
Tax Year : 2021

Period : 01-Jul-2020 - 30-Jun-2021

Medium : Online

Due Date : 31-Dec-2021

Name: PUNJAB INDUSTRIAL ESTATE

Address: DEVELOPMENT AND MANAGEMENT

INDUSTRIAL ESTATE, RAIWIND ROAD,

Lahore Iqbal Town

Contact No: 00923200840690

Document Date 31-Dec-2021



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Adjustable Tax				
Description	Code	Receipts / Value	Tax Collected / Deducted	Tax Chargeable
	64150002	0	1,163	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840678	64150002	0	1,528	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840680	64150002	0	1,476	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840681	64150002	0	1,620	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840690	64150002	0	1,623	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840822	64150002	0	994	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840823	64150002	0	919	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840827	64150002	0	833	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840845	64150002	0	1,300	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840832	64150002	0	1,423	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840836	64150002	0	1,960	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840846	64150002	0	1,642	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840631	64150002	0	1,965	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840653	64150002	0	1,740	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840684	64150002	0	1,556	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840699	64150002	0	1,403	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840629	64150002	0	2,759	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840641	64150002	0	2,169	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840655	64150002	0	1,575	0

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114(1) (Return of Income filed voluntarily for complete year) Registration No: 1962854

Tax Year : 2021

Name: PUNJAB INDUSTRIAL ESTATE

Period : 01-Jul-2020 - 30-Jun-2021

Address: OVERSEAS INVESTMENT
PUNJAB INDUSTRIAL ESTATE, RAIWIND ROAD,
Lahore Iqbal Town

Medium : Online

Due Date : 31-Dec-2021

Contact No: 00923200840690

Document Date 31-Dec-2021



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Adjustable Tax				
Description	Code	Receipts / Value	Tax Collected / Deducted	Tax Chargeable
	64150002	0	1,575	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840664	64150002	0	1,122	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840831	64150002	0	1,267	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840634	64150002	0	1,678	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840626	64150002	0	1,228	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840669	64150002	0	1,090	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840688	64150002	0	909	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840673	64150002	0	1,321	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840828	64150002	0	1,351	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840636	64150002	0	1,681	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840656	64150002	0	1,620	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840670	64150002	0	1,502	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840687	64150002	0	1,154	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840689	64150002	0	1,219	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840692	64150002	0	1,224	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840657	64150002	0	1,234	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840668	64150002	0	1,120	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840672	64150002	0	1,158	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840697	64150002	0	842	0

114(1) (Return of Income filed voluntarily for complete year) Registration No. 1962054

Tax Year : 2021

Name: PUNJAB INDUSTRIAL ESTATE

Period : 01-Jul-2020 - 30-Jun-2021

Address: DUAL CEMENT AND MANAGEMENT

Medium : Online

INDUSTRIAL ESTATE, RAIWIND ROAD,

Due Date : 31-Dec-2021

Lahore Iqbal Town

Contact No: 00923200840690

Document Date 31-Dec-2021



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Adjustable Tax				
Description	Code	Receipts / Value	Tax Collected / Deducted	Tax Chargeable
	64150002	0	842	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840824	64150002	0	931	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840820	64150002	0	1,280	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840830	64150002	0	1,628	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840693	64150002	0	1,711	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840616	64150002	0	1,774	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840661	64150002	0	1,645	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840665	64150002	0	985	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840622	64150002	0	1,414	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840649	64150002	0	1,866	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840651	64150002	0	1,310	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840679	64150002	0	2,496	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840663	64150002	0	2,573	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840698	64150002	0	2,013	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840821	64150002	0	1,483	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840826	64150002	0	1,021	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840650	64150002	0	976	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840659	64150002	0	659	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840633	64150002	0	1,514	0

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 CONSULTANTS



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Revenue Division - Government of Pakistan



114(1) (Return of Income filed voluntarily for complete year)

Registration No: 1962954

Tax Year : 2021

Name: PUNJAB INDUSTRIAL ESTATE

Period : 01-Jul-2020 - 30-Jun-2021

Address: DEVALGMENT AND MANAGEMENT

Medium : Online

INDUSTRIAL ESTATE, RAIWIND ROAD,

Due Date : 31-Dec-2021

Lahore Iqbal Town

Contact No: 00923200840690

Document Date 31-Dec-2021



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Adjustable Tax				
Description	Code	Receipts / Value	Tax Collected / Deducted	Tax Chargeable
	64150002	0	1,514	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840658	64150002	0	1,121	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840652	64150002	0	1,569	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840605	64150002	0	2,761	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840694	64150002	0	1,460	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840612	64150002	0	1,561	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840696	64150002	0	1,572	0
Cellphone Bill u/s 236(1)(a) - WARID - 3200840818	64150002	0	1,083	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994605	64150002	0	1,607	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994623	64150002	0	1,634	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994631	64150002	0	1,624	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994612	64150002	0	1,498	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994620	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994609	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994627	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994621	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994629	64150002	0	1,349	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115996852	64150002	0	1,333	0

114(1) (Return of Income filed voluntarily for complete year)

Registration No: 1962054

Tax Year : 2021

Name: PUNJAB INDUSTRIAL ESTATE

Period : 01-Jul-2020 - 30-Jun-2021

Address: DEVELOPMENT AND MANAGEMENT

Medium : Online

INDUSTRIAL ESTATE, RAIWIND ROAD,

Due Date : 31-Dec-2021

Lahore Iqbal Town

Contact No: 00923200840690

Document Date 31-Dec-2021



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Adjustable Tax				
Description	Code	Receipts / Value	Tax Collected / Deducted	Tax Chargeable
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994652	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994617	64150002	0	1,345	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115996356	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115996355	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994626	64150002	0	1,178	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994628	64150002	0	1,167	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994611	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994618	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994624	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994619	64150002	0	1,466	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994614	64150002	0	1,697	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115996971	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115996486	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994613	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994622	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994616	64150002	0	1,346	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994610	64150002	0	1,420	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115996837	64150002	0	1,244	0

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Registration No. 1962954

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Period : 01-Jul-2020 - 30-Jun-2021

Medium : Online

Due Date : 31-Dec-2021

Name: PUNJAB INDUSTRIAL ESTATE

Address: DEVELOPMENT AREA (MAYAPUR), GONDAR

INDUSTRIAL ESTATE, RAWIND ROAD,

Lahore Iqbal Town

Contact No: 00923200840690

Document Date 31-Dec-2021



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Adjustable Tax				
Description	Code	Receipts / Value	Tax Collected / Deducted	Tax Chargeable
Cellphone Bill u/s 236(1)(a) - ZONG - 3115996764	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994608	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994625	64150002	0	1,356	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115996851	64150002	0	1,362	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994687	64150002	0	1,413	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994602	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994607	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994615	64150002	0	1,363	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994604	64150002	0	1,830	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994653	64150002	0	1,406	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994606	64150002	0	1,333	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115994630	64150002	0	1,167	0
Cellphone Bill u/s 236(1)(a) - ZONG - 3115996971	64150002	0	744	0
Internet Bill u/s 236(1)(d)	64150005	0	14,696	0
Internet Bill u/s 236(1)(d) - Internet Services - -	64150005	0	14,696	0
Final / Fixed / Minimum / Average / Relevant / Reduced Tax				
Description	Code	Receipts / Value	Tax Collected / Deducted	Tax Chargeable
Final / Fixed / Minimum / Average / Relevant / Reduced Tax	640001	0	0	0
Capital Gains on Immovable Property u/s 37(1A)	64220050	0	0	0

114(1) (Return of Income filed voluntarily for Complete Year)

Registration No: 1962854
Tax Year : 2021

Name: PUNJAB INDUSTRIAL ESTATE

Period : 01-Jul-2020 - 30-Jun-2021

Address: DEVERMENT AREA MANAGEMENT
INDUSTRIAL ESTATE, RAIWIND ROAD,

Medium : Online

Due Date : 31-Dec-2021

Contact No: 00923200840690
Lahore Iqbal Town

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Computations				
Description	Code	Total Amount	Amount Exempt from Tax / Subject to Fixed / Final Tax	Amount Subject to Normal Tax
Income / (Loss) from Business	3000	431,211,942	0	431,211,942
Income / (Loss) from Other Sources	5000	473,786,815	0	473,786,815
Total Income	9000	0	0	904,998,757
Taxable Income	9100	0	0	904,998,757
Normal Income Tax	920000	0	0	262,449,640
Tax Credits	9329	0	0	262,449,640
Accounting Profit / Tax Chargeable u/s 113C @17%	923173	0	0	0
Turnover / Tax u/s 113 on Companies operating trading houses @0.5%	923195	0	0	0
Withholding Income Tax	9201	0	2,683,607	
Refundable Income Tax	9210	0	0	2,683,607

Amortization

Description	Code	WDV (BF)	Remaining Useful Years	Extent of Use	Amortization
Intangible	3305	0	0	0	29,702
Intangible	3305	109,749	7	100	15,678
Intangible	3305	243,750	3	17.26	14,024

Depreciation

Description	Code	WDV (BF) (Addition prior to 1st July 2020)	Deletion	Addition (Used in Pakistan)	Extent of Use	Addition (New on or after 1st July 2020)	Extent of Use	Initial Allowance	Depreciation	WDV (CF)
Building (all types)	3302	101,643,999	0	0	100	6,639,546	100	0	10,496,377	97787168
Plant / Machinery (not Otherwise specified)	330301	147,219,893	0	0	100	48,238,064	100	12,059,516	24,796,375	158602066
Computer	330302	9,510,25	0	0	100	6,266,215	100	1,566,554	3,558,026	10651890

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Registration No: 1962854

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Name: PUNJAB INDUSTRIAL ESTATE

Period : 01-Jul-2020 - 30-Jun-2021

Address: DEVELOPMENT AND MANAGEMENT

Medium : Online

COMMERCIAL ESTATE, RAIWIND ROAD,

Due Date : 31-Dec-2021

Lahore Iqbal Town

Contact No: 00923200840690

Document Date 31-Dec-2021



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Depreciation

Description	Code	WDV (BF) / (Additions prior to 1st July 2020)	Deletion	Addition (Used in Pakistan)	Extent of Use	Addition (New on or after 1st July 2020)	Extent of Use	Initial Allowance	Depreciation	WDV (CF)
Hardware / Allied Items / Equipment used in manufacture of IT products	330302	5	0	0	100	6,266,215	100	1,566,554	3,558,026	10651890
Furniture (including fittings)	330303	8,259,347	0	0	100	2,018,767	100	0	1,390,310	8887804
Motor Vehicle (not plying for hire)	33041	91,000,037	0	0	100	16,080,511	100	0	14,856,044	92224504



PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
A Company setup under Section 42 of the Companies Ordinance, 1984 (now Companies Act, 2017)



October 24, 2022

Undertaking
Pattern of Shareholding

We hereby undertake that Punjab Industrial Estate Development and Management Company (PIEDMC) is 100% owned by the Government of Punjab and that this information holds true to the best of our knowledge.

Chief Executive Officer




CASH & BANK BALANCE CERTIFICATES



TO WHOM IT MAY CONCERN

It is certified that Cash in Hand at Punjab Industrial Estates Development and Management Company – Head Office as at June 30, 2018 is Rs. 170,000 (One Hundred Seventy Thousand only).


Acting Chief Financial Officer



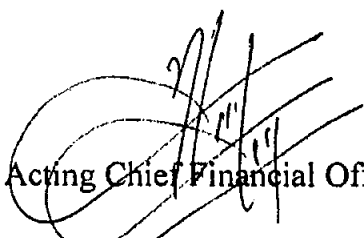


**PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY**
A Company setup under Section 42 of the Companies Ordinance, 1984 (now Companies Act, 2017)



TO WHOM IT MAY CONCERN

It is certified that Cash in Hand at Punjab Industrial Estates Development and Management Company – Head Office as at June 30, 2022 is Rs. 194,000 (One Hundred Ninety Four Thousand only).


Acting Chief Financial Officer



Head Office: Commercial Area (North) Sundar Industrial Estate, Sundar Raiwind Road, Lahore.
Tel: 042-35297203-6, Fax: 042-35297207, UAN: +92-42-111-743-743
Website: www.pie.com.pk E-Mail: info@pie.com.pk
An Approved Non Profit Organisation U/S 2(36) of Income Tax Ordinance 2001





Balance Confirmation Letter
002 Egerton Road Branch - Lahore

Date: 20-Jul-22

Name: PUNJAB INDUSTRIAL ESTATE DEVELOPMEN

Father/Husband:

Address: COMMERCIAL AREA (NORTH) SUNDAR INDUSTRIAL ESTATE RAIWIND RD LHR
COMMERCIAL AREA (NORTH)SUNDAR INDUSTRIAL ESTATERAIWIND RD LAHORE

Ph:

A/C Number: 6580003156000013

Currency: PKR

Dear Customer,

Your Corporate Premium Account No. 6580003156000013 with us shows a balance of PKR 2,492,643,721.59 (Rupees Two billion Four Hundred Ninety-Two million Six Hundred Forty-Three thousand Seven Hundred Twenty-One and fifty-nine paises only) as on 30-JUN-2022.

Please confirm the correctness of the balance on the sub-joined confirmation slip and return the same to us duly signed by you at earliest on the mentioned address. It may please be noted that if your confirmation is not received back by us within seven days from the date of this intimation letter, the balance in your account shall be deemed correct and confirmed by you.

This is a system generated letter and does not require any signatures

-----CUT HERE

Confirmation of Balance

The Manager,
The Bank of Punjab,
002 Egerton Road Branch - Lahore.

Ref : Confirmation of Balance
A/c No.6580003156000013
Corporate Premium Account

Dear Sir,

I/We confirm, on examination, the correctness of balance of PKR 2,492,643,721.59 (Rupees Two billion Four Hundred Ninety-Two million Six Hundred Forty-Three thousand Seven Hundred Twenty-One and fifty-nine paises only) in my/our above account with you as on 30-JUN-2022.

Authorized Signature
(of account holder)



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Passion Reborn

**Main Branch,
7 Egerton Road, Lahore.
Tel: +92-42-36374811-14
Fax: +92-42-36374816
Email: bop0002@bop.com.pk**

July 20, 2022
MB/LHR/012/

TO WHOM IT MAY CONCERN

This is to certify that PUNJAB INDUSTRIAL ESTATE DEVELOPMEN is maintaining account # PK65BPUN6580C03156000013 with us since 2004-08-23.

The overall conduct of the Accounts is satisfactory.

This certificate is being issued at the specific request of the customer without any risk and responsibility on part of the bank or any of its officer.

AIMON MAJEED BUTT
Customer Service Officer

MUHAMMAD USMAN GHANI
Branch Operations Manager
THE BANK OF PUNJAB
Main Branch Lahore-0002

MUHAMMAD USMAN GHANI
Manager Operations





PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
A Company setup under Section 42 of the Companies Ordinance, 1984 (now Companies Act, 2017)



October 24, 2022

Undertaking
Details of Charges and Encumbrances

We hereby undertake that there are no charges and encumbrances on the assets of Punjab Industrial Estate Development & Management Company (PIEDMC).


Chief Executive Officer





AUDITED FINANCIAL STATEMENTS



Financial Statements 2017-18

ATTESTED TO BE TRUE COPY

PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
OWNED BY GOVT. OF PUNJAB

Punjab Industrial Estates

Development & Management Company

Commercial Area (North) Sundar Industrial
Estate

Raiwind Road Lahore.

UAN: 042-111-743-743

Tel: PABX 042-35297203-6 Fax: 042-

PUNJAB INDUSTRIAL ESTATE DEVELOPMENT AND MANAGEMENT COMPANY

(a company set up under section 42 of the repealed Companies Ordinance, 1984, Now Companies Act, 2017)

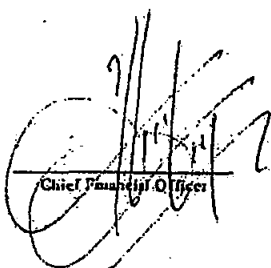
Statement of Financial Position

As At June 30, 2018

	Note	2018 Rupees	2017 Rupees (Restated)	2016 Rupees (Restated)
Equity and liabilities				
Equity				
Share capital	7	50,000,000	50,000,000	50,000,000
Accumulated Surplus		3,001,805,426	2,954,319,643	2,341,548,119
Total equity		3,051,805,426	3,004,319,643	2,391,548,119
Liabilities				
Non-current liabilities				
Long term financing	8	2,293,671,350	3,788,021,849	3,876,117,563
Deferred income	9	201,832,629	168,275,489	101,087,884
Deferred credit	10	680,973,150	1,181,505,285	1,281,626,938
Deferred grants	11	210,306,546	218,052,828	228,341,382
Deferred liabilities	12	337,931,644	18,545,343	8,551,187
Total non-current liabilities		3,419,815,319	5,374,901,493	5,495,734,954
Current liabilities				
Current portion of long term financing	8	4,901,106,001	3,026,772,667	1,309,106,000
Loan from the Govt. of Punjab - <i>unrepaid</i>	13	1,429,854,949	1,429,854,949	365,769,949
Accrued interest on long term financing		66,631,743	45,326,685	29,284,736
Trade and other payables	14	1,543,371,059	902,562,240	1,140,826,830
Security deposits	15	408,311,907	372,254,472	315,594,624
Receipt against deposit works	16	371,364,881	541,402,781	934,132,834
Advances received for sale of plots	17	5,397,927,491	5,235,664,500	5,019,865,907
Total current liabilities		14,119,568,032	11,552,028,364	9,115,281,780
Total equity and liabilities		20,590,188,767	19,930,749,500	17,002,584,853
Contingencies and commitments	18			

The annexed notes from 1 to 45 form an integral part of these financial statements.

4/1/18


Chief Financial Officer


Chief Executive Officer


Chairman

ATTESTED TO BE TRUE COPY

PUNJAB INDUSTRIAL ESTATE
DEVELOPMENT AND MANAGEMENT COMPANY
OWNED BY: GOVT. OF PUNJAB

Company Secretary

SAMD

SAMD
CONSULTANTS

PUNJAB INDUSTRIAL ESTATE DEVELOPMENT AND MANAGEMENT COMPANY

(a company set up under section 42 of the repealed Companies Ordinance, 1984. New Companies Act, 2017)


Statement of Financial Position

As At June 30, 2018

	Note	2018 Rupees	2017 Rupees (Restated)	2016 Rupees (Restated)
Assets				
<u>Non-current assets</u>				
Property, plant and equipment	19	576,014,442	505,367,952	405,649,588
Intangibles	20	304,676	321,862	482,770
Long term deposits		170,189,193	172,831,630	90,241,914
Total non-Current assets		746,428,310	678,521,444	496,374,272
<u>Current assets</u>				
Stores, spare parts and loose tools		41,430,936	23,091,809	20,130,870
Inventory, projects in progress	21	13,249,446,045	12,621,165,741	11,055,239,137
Trade debts, unsecured - considered good	22	1,191,230,739	950,641,399	571,833,901
Advances, deposits, prepayments and other receivables	23	1,114,308,619	258,417,358	236,808,756
Income tax refundable		661,485,568	634,644,503	605,884,809
Short term investments	24	2,210,000,000	2,410,000,000	2,610,000,000
Accrued interest		23,945,677	24,827,534	34,229,138
Cash and bank balances	25	851,863,233	2,329,449,032	1,372,663,888
Total current assets		19,843,710,787	19,252,228,056	16,506,190,581
Total assets		20,590,189,767	19,930,749,500	17,002,564,853

The numbered notes from 1 to 45 form an integral part of these financial statements.

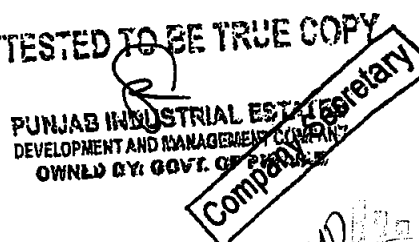
4/18


Chief Financial Officer


Chief Executive Officer


Chairman

ATTESTED TO BE TRUE COPY


PUNJAB INDUSTRIAL ESTATE
DEVELOPMENT AND MANAGEMENT COMPANY
OWNED BY: GOVT. OF PUNJAB
Company Secretary


SAMD
CONSULTANTS

PUNJAB INDUSTRIAL ESTATE DEVELOPMENT AND MANAGEMENT COMPANY

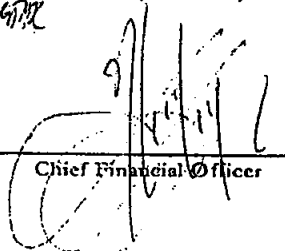
(a company set up under section 42 of the repealed Companies Ordinance, 1984. Now Companies Act, 2017)

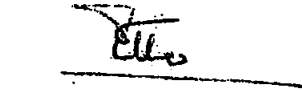
Statement of Income and Expenditure and Other Comprehensive Income

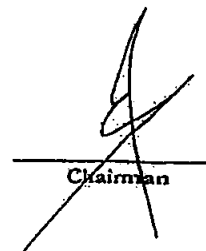
For the Year Ended June 30, 2018

	Note	2018 Rupees	2017 Rupees (Restated)
Revenue			
Amortization of grants	11	7,746,282	10,288,554
Sale of plots	26	473,594,589	399,780,700
Electricity billing	27	4,050,593,950	3,471,221,534
Fees	28	391,983,243	618,791,393
Operation, maintenance and allied service billing	29	209,344,025	195,009,062
Sales of electrical material		167,400	7,654,028
Other income	30	864,530,552	816,380,665
Total income		5,997,940,041	5,519,125,936
Expenditure			
Cost of plots sold	31	451,456,595	276,833,867
Development expenditures	32	29,564,450	55,488,011
Operations and maintenance expenses	33	293,401,582	215,988,985
Cost of electricity	34	4,123,523,170	3,482,596,666
Administrative expenses	35	480,201,678	303,289,696
Selling expenses	36	45,682,198	9,769,471
Finance cost	37	505,540,559	544,544,873
Total expenditure		5,929,470,232	4,888,511,569
Net surplus for the year		68,469,809	630,614,367
Taxation	38		
Net surplus after tax		68,469,809	630,614,367
Other comprehensive income			
Items that will not be reclassified to income & expenditure			
Items that may be reclassified subsequently to income & expenditure:			
Remeasurement of post employment benefit obligation - actuarial loss		(20,984,026)	(17,842,843)
Other comprehensive loss for the year		(20,984,026)	(17,842,843)
Total comprehensive income for the year		47,485,783	612,771,524

The annexed notes from 1 to 45 form an integral part of these financial statements.

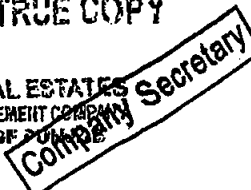

Chief Financial Officer


Chief Executive Officer


Chairman

ATTESTED TO BE TRUE COPY

PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
OWNED BY: GOVT. OF PUNJAB


SAMD
CONSULTANTS
Company Secretary

PUNJAB INDUSTRIAL ESTATE DEVELOPMENT AND MANAGEMENT COMPANY

(a company set up under section 42 of the repealed Companies Ordinance, 1984, Now Companies Act, 2017)

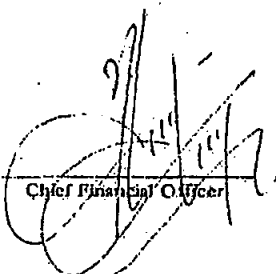
Statement of Changes in Equity

For the Year Ended June 30, 2018

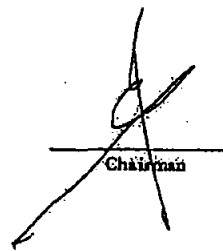
	Note	Share Capital Rupees	Excess of income over expenditures Rupees	Equity portion of shareholder loan and other benefits Rupees	Total Rupees
Balance as at June 30, 2016 - as previously reported		50,000,000	1,789,019,559	2,062,496,880	3,901,516,439
Effect of Restatement	6.2.1	-	552,528,560	(2,062,496,880)	(1,509,968,320)
Balance as at July 01, 2016 - Restated		50,000,000	2,341,548,119	-	2,391,548,119
Net surplus for the year - restated		-	630,614,367	-	630,614,367
Other comprehensive loss for the year		-	(17,842,843)	-	(17,842,843)
Balance as at June 30, 2017 - Restated		50,000,000	2,954,319,643	-	3,004,319,643
Net surplus for the year		-	68,469,809	-	68,469,809
Other comprehensive loss for the year		-	(20,984,026)	-	(20,984,026)
Balance as at June 30, 2018		50,000,000	3,001,805,426	-	3,051,805,426

The annexed notes from 1 to 45 form an integral part of these financial statements.

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Chief Financial Officer


Chief Executive Officer


Chairman

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PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
OWNED BY GOVT. OF PUNJAB

Company Secretary


SAMD
CONSULTANTS

PUNJAB INDUSTRIAL ESTATE DEVELOPMENT AND MANAGEMENT COMPANY

(a company set up under section 42 of the repealed Companies Ordinance, 1984. Now Companies Act, 2017)

Statement of Cashflows

For the Year Ended June 30, 2018

	Note	2018 Rupees	2017 Rupees (Restated)
Cash used in for operations	39	(1,588,116,127)	(860,562,201)
Interest paid		(1,808,251)	(2,109,632)
Return on bank deposits		230,298,362	213,917,855
Long term deposits		2,672,437	(59,843,789)
Gratuity contributions paid		(37,336,629)	(29,116,904)
Net cash used in operating activities		(1,394,290,208)	(737,314,671)
Cash flows from investing activities			
Capital expenditure		(137,975,523)	(118,347,723)
Capital work in process		(29,798,652)	(47,522,740)
Proceeds from sale of assets		5,027,684	3,849,211
Short term investments		-	200,000,000
Net cash generated from / (used in) investing activities		(162,746,491)	37,978,748
Cash flows from financing activities			
Net loan received from Government		-	1,650,000,000
Repayment of long term loan		(120,550,000)	(120,550,000)
Net cash (used in)/from financing activities		(120,550,000)	1,529,450,000
Net (decrease)/increase in cash and cash equivalents		(1,677,586,699)	829,714,077
Cash and cash equivalents at the beginning of the year		4,449,449,932	3,619,735,855
Cash and cash equivalents at the end of the year		2,771,863,233	4,449,449,932
Cash and cash equivalents			
Cash and bank balances	25	851,863,233	2,329,449,932
Short term investments	24	1,920,000,000	2,120,000,000
Cash and cash equivalents at the end of the year		2,771,863,233	4,449,449,932

The annexed notes from 1 to 45 form an integral part of these financial statements.

[Signature]
Chief Financial Officer

[Signature]
Chief Executive Officer

[Signature]
Chairman

ATTESTED TO BE TRUE COPY
PUNJAB INDUSTRIAL ESTATE DEVELOPMENT AND MANAGEMENT COMPANY
OWNED BY: GOVT. OF PUNJAB
Company Secretary

SAMD
CONSULTANTS

PUNJAB INDUSTRIAL ESTATES DEVELOPMENT AND MANAGEMENT COMPANY

(a company set up under section 42 of the repealed Companies Ordinance, 1984, Now Companies Act, 2017)

Notes to the Financial Statements

For the year ended June 30, 2018

1 Legal status and nature of business

Punjab Industrial Estates Development and Management Company ("the Company") was incorporated in Pakistan on 18 September 2003 as a public company limited by guarantee, licensed as a non-profit organization under section 42 of the Repealed Companies Ordinance, 1984 (now Companies Act, 2017). The Company is wholly owned by the Government of Punjab. The principal activity of the Company is to develop new industrial estates together with upgrading the existing industrial estates as may be assigned by the Government of Punjab. The registered office of the Company is situated at Commercial Area (North) Sundar Industrial Estate, Raiwind road, Lahore.

The Company is managing Quid-e-Azam Industrial Estate ("QIE") and Sundar Industrial Estate ("SIE") in Lahore and Multan Industrial Estate - Phase I ("MIE I") in Multan while it is currently developing:

- Multan Industrial Estate - Phase II ("MIE II") in Multan;
- Rahim Yar Khan Industrial Estate in Rahim Yar Khan;
- Bhakwal Industrial Estate in Bhakwal;
- Vehari Industrial Estate in Vehari;
- Quid-e-Azam Business Park in Sheikhupura;
- Chunian Industrial Estate in Chunian; and
- Bithawalpur Industrial Estate in Bahawalpur

2 Basis of preparation

2.1 Statement of compliance

These financial statements have been prepared in accordance with approved accounting standards as applicable in Pakistan. Approved accounting standards comprise such International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board Accounting Standard for Not for Profit Organisation issued by IASB are notified under the Companies Act, 2017 and provisions of and directives issued under the Companies Act, 2017. In cases where requirements differ, the provisions of and directives issued under the Companies Act, 2017 shall prevail.

2.2 Standards, amendments or interpretations that became effective during the year

The fifth schedule to the Companies Act, 2017 became applicable to the Company for the preparation of these financial statements. The Companies Act, 2017 (including its fifth schedule) forms an integral part of the statutory financial reporting framework applicable to the Company and among others, prescribes the nature and content of disclosures in relation to various elements of the financial statements.

The Company has also adopted following amendments of standards which became effective for the current year:

Standard or Interpretation

- IAS-7 Statement of Cash Flows
- IAS-12 Income Taxes

The adoption of the above standards and amendments did not have any significant effect on the financial statements of the Company.

2.3 Standards, amendments and interpretations to the approved accounting standards that are relevant but not yet effective

The following standards, amendments or interpretations with respect to the approved accounting standards and interpretations as applicable in Pakistan would be effective from the dates mentioned below against the respective standards:

Standard or Interpretation	Effective Date
IFRS 9 Financial Instruments	1-Jul-18
IFRS 15 Revenue from Customers	1-Jul-18
IFRS 16 Leases	1-Jul-19
IFRS 2 Share-based Payment - Classification and Measurement of Share based Payment Transactions	1-Jan-18
IFRS 4 Insurance Contracts - Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts	1-Jan-18
IAS 40 Investment Property - Transfers of Investment Property	1-Jan-18

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PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
OWNED BY GOVT. OF PUNJAB
Company Secretary

SAMD
CONSULTANTS

PUNJAB INDUSTRIAL ESTATES DEVELOPMENT AND MANAGEMENT COMPANY

(a company set up under section 42 of the repealed Companies Ordinance, 1984, Now Companies Act, 2017)

Notes to the Financial Statements

For the year ended June 30, 2018

IFRS 1 Annual Improvements to IFRS Standards 2014-2016 Cycle	1-Jan-18
IFRS 11 Joint Agreements - Accounting for Acquisition of Interests in Joint Operations (Amendments)	1-Jan-18
IAS 28 Presentation of Financial Statements - Annual Improvements to IFRS Standards 2014-2016 Cycle	1-Jan-18
IAS 16 Property, Plant and Equipment and IAS 38 Intangible Assets - Clarification of Acceptable Methods of Depreciation and Amortization (Amendments)	1-Jul-16
IFRIC 22 Foreign Currency Transactions and Advance Consideration	1-Jan-18
IFRIC 23 Uncertainty Over Income Tax Treatment	1-Jan-19
IFRS 1 and IAS 28 - Annual Improvements to IFRSs 2014-2016	1-Jan-18

The Company is in process of assessing impact of these new and amended published standards and interpretations on the financial statements of the Company.

2.4 Standards, amendments and interpretations to the published standards that are not yet notified by the Securities and Exchange Commission of Pakistan (SECP)

In addition to the above, following standards have been issued by IASB which are yet to be notified by the SECP for the purpose of applicability in Pakistan:

Standards or interpretations

IFRS-14 Regulatory Deferral Accounts

IFRS 17 Insurance Contracts

The Company is in process of assessing impact of these standards, amendments and interpretations on the financial statements of the Company.

3 Basis of measurement

These financial statements have been prepared under the historical cost convention except for certain balances which are stated in accounting policies below.

4 Functional and presentational currency

These financial statements have been prepared in Pak Rupees which is also the Company's functional currency. All financial information presented in Rupees has been rounded off to the nearest rupee, unless otherwise stated.

5 Use of estimates and judgments

The preparation of financial statements in conformity with approved accounting standards requires management to make judgments, estimates and assumptions that affect the application of policies and reported amount of assets and liabilities and income and expenses. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under circumstances, and the results of which form the basis for making judgment about carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. Revision to accounting estimates are recognized in the period in which the estimate is revised if the revision affects only that period, or in the period of revision and future periods if the revision affects both current and future periods. The areas where assumptions and estimates are significant to the Company's financial statements or where judgment was exercised in application of accounting policies are as follows:

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PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
OWNED BY GOVT. OF PUNJAB

Company Secretary

SMP

SAMD
CONSULTANTS

PUNJAB INDUSTRIAL ESTATES DEVELOPMENT AND MANAGEMENT COMPANY

(a company set up under section 42 of the repealed Companies Ordinance, 1984. Now Companies Act, 2017)

Notes to the Financial Statements

For the year ended June 30, 2018

5.1 Depreciation method, rates and useful lives of property, plant and equipment

The management of the Company reassesses useful lives, depreciation method and rates for each item of property, plant and equipment annually by considering expected pattern of economic benefits that the Company expects to derive from that item and the maximum period up to which such benefits are expected to be available. Any change in estimate may affect the depreciation charge or impairment. The rates of depreciation are specified in note 19.

5.2 Employee Benefits

The Company operates approved funded gratuity scheme covering all its full time permanent workers who have completed the minimum qualifying period of service as defined under the respective scheme. The gratuity scheme is managed by trustees. The calculation of the benefit requires assumptions to be made of future outcomes, the principal ones being in respect of increase in remuneration and the discount rate used to convert future cash flows to current values. The assumptions used for the plan are determined by independent actuary on annual basis.

5.3 Leave Encashment

Balanced/un-availed Annual Leave is encashed at the rate of current gross salary of the employee at the end of fiscal year. Days to be reimbursed of new employees are counted on pro-rata basis.

5.4 Taxation

Current

Provision for current taxation is based on taxable income at the current rates of taxation after considering rebates and tax credits available, if any. The charge for the current tax also includes adjustments where necessary, relating to prior periods which arise from assessment framed / finalized during the period, if any.

Deferred

Deferred tax is provided using the balance sheet method for all temporary differences at the balance sheet date between tax bases of assets and liabilities and their carrying amounts for financial reporting purposes.

Deferred income tax asset is recognized for all deductible temporary differences and carry forward of unused tax losses and tax credits, if any, to the extent that it is probable that taxable profits will be available against which such temporary differences and tax losses/credits can be utilized. Deferred tax liabilities are recognized for all major taxable temporary differences.

Deferred income tax assets and liabilities are measured at the tax rates that are expected to apply to the period when the asset is realized or the liability is settled, based on tax rates that have been enacted or substantively enacted at the date of statement of financial position. Deferred tax is charged or credited to statement of profit or loss, except in the case of items credited or charged to equity in which case it is included in equity.

5.5 Provisions

Provisions are based on best estimate of the expenditure required to settle the present obligation at the reporting date, that is, the amount that the Company would rationally pay to settle the obligation at the reporting date or to transfer it to a third party.

5.6 Impairment

The management of the Company reviews carrying amounts of its assets including receivables and advances and cash generating units for possible impairment and makes formal estimates of recoverable amount if there is any such indication.

5.7 Provision for doubtful debts, advances and other receivables

The Company reviews the recoverability of its trade debts, advances and other receivables to assess amount of bad debts and provision required there against on annual basis.

5.8 Contingencies

Where it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation or the amount of the obligation can not be measured with sufficient reliability, it is disclosed as contingent liability.

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PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
OWNED BY GOVT OF PUNJAB

Company Secretary

SAMD
CONSULTANTS

PUNJAB INDUSTRIAL ESTATES DEVELOPMENT AND MANAGEMENT COMPANY

(a company set up under section 42 of the repealed Companies Ordinance, 1984. Now Companies Act, 2017)

Notes to the Financial Statements

For the year ended June 30, 2018

5.9 Stores, spare parts and loose tools

The Company reviews the stores, spare parts and loose tools for possible impairment on an annual basis. Any change in estimates in future years might affect the carrying amounts of the respective items of stores and spare parts and loose tools with a corresponding effect on the provision.

5.10 Inventory

The Company reviews the carrying amount of inventory on a regular basis. Carrying amount of inventory is adjusted where the net realizable value is below the cost. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and estimated costs necessary to make the sale.

6 Summary of significant accounting policies

These accounting policies stated below have been consistently applied to all periods presented in these financial statements.

6.1 Long term financing

These are classified as 'financial liabilities at amortized cost'. On initial recognition, these are measured at fair values less a attributable transaction costs. Subsequent to initial recognition, these are measured at amortized cost with any difference between cost and value at maturity recognized in the statement of income and expenditure account over the period of the borrowings on an effective interest rate basis.

Loan at a below-market rate of interest from Government are recognized and measured at amortized cost (i.e. the present value of the future cash flows discounted at a market rate of interest). The benefit, that is the difference between the fair value of the loan on initial recognition and the amount received, is accounted for as additional government grant. The benefit is accounted for as deferred credit and is amortized over the period of borrowings.

6.2 Government grants

Government grants are recognized when there is reasonable assurance that the Company will comply with all conditions attaching to them and there will be received.

When the grant relates to expense item, it is recognized as income over the period necessary to match the grant on systematic basis to the cost that is intended to compensate. When the grant relates to an asset, it is recognized as deferred income and changes to the income in equal amounts over the expected useful life of related assets.

Non monetary grants are recognised at fair value of the assets.

6.3 Post retirement benefit

The Company operates approved funded gratuity scheme covering all its full time permanent workers who have completed the minimum qualifying period of service as defined under the respective scheme. The gratuity scheme is managed by trustees. The calculation of the benefit requires assumptions to be made of future outcomes, the principal ones being in respect of increase in remuneration and the discount rate used to convert future cash flows to current values. The assumptions used for the plan are determined by independent actuary on annual basis.

6.4 Trade and other payables

Liabilities relating to trade and other payables are carried at fair value of consideration to be paid in the future for goods and services received, whether or not billed to the Company.

6.5 Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying asset is deducted from the borrowing costs eligible for capitalization. All other borrowing costs are recognized in the statement of income and expenditure as incurred.

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PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
OWNED BY: GOVT. OF PUNJAB

Company Secretary

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CONSULTANTS

PUNJAB INDUSTRIAL ESTATES DEVELOPMENT AND MANAGEMENT COMPANY

(a company set up under section 42 of the repealed Companies Ordinance, 1984. Now Companies Act, 2017)

Notes to the Financial Statements

For the year ended June 30, 2018

6.6 Provisions

Provisions are recognized when the Company has a legal or constructive obligation as a result of past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate of the amount can be made. Provisions are reviewed at each statement of financial position and adjusted to reflect the current best estimate.

6.7 Property, plant and equipment

Property and equipment are stated at cost less accumulated depreciation and impairment in value, if any. Cost of property plant and equipment consist of historical costs and directly attributable costs in bringing the assets to their working condition.

Depreciation is calculated by applying the rates mentioned in the Note 19 on reducing balance method. Depreciation is charged on additions from the month the asset is available for use and on disposals up to the month preceding the month of disposal. The assets' residual values and useful lives are reviewed and adjusted, if appropriate, at each reporting date.

Normal repair and maintenance is charged to income as and when incurred whereas major renewals and improvements are capitalized. Gain or loss on disposal of assets is charged to the statement of income and expenditure.

6.8 Capital work-in-progress

Capital work in progress represents expenditure on property, plant and equipment in the course of construction and installation including material, labour and overheads directly relating to the project. Capital work-in-progress is stated at cost less any identified impairment loss. All expenditure connected with specific assets incurred during installation and construction period are carried under capital work-in progress. These are transferred to specific assets as and when these are available for use.

6.9 Intangibles

Expenditure incurred to acquire intangibles is capitalized as intangible and stated at cost less accumulated amortization and any identified impairment loss. The estimated useful life and amortization method is reviewed at the end of each annual reporting period, with effect of any changes in estimate being accounted for on a prospective basis.

Intangibles are amortized using straight-line method over a period of three years. Amortization on additions to intangible assets is charged from the month the asset is available for use and on disposals up to the month preceding the month of disposal.

6.10 Stores, spare-parts and loose tools

These are stated at lower of cost and net realizable value. Cost is determined using the weighted average method. Items in transit are valued at cost comprising invoice value plus other charges paid thereon.

6.11 Inventory

This represents saleable land received from government and land purchased for various projects, expenditure incurred on its development, and is intended to be sold in the ordinary course of business.

Expenditure incurred on development of infrastructure forms part of the cost of over all project and is included in the cost of inventory as and when incurred.

Inventory is valued at lower of the cost and net realizable value. Net realizable value is the estimated selling price of plots in the ordinary course of business less the estimated costs of completion of projects in progress. Cost is determined on worked performed basis.

6.12 Impairment

Financial assets

A financial asset is assessed at each reporting date to determine whether there is any objective evidence that it is impaired. Individually significant financial assets are tested for impairment on an individual basis. The remaining financial assets are assessed collectively in groups that share similar credit risk characteristics. A financial asset is considered to be impaired if objective evidence indicates that one or more events have had a negative effect on the estimated future cash flows of the asset.

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Notes to the Financial Statements

For the year ended June 30, 2018

An impairment loss in respect of a financial asset measured at amortized cost is calculated as the difference between its carrying amount, and the present value of the estimated future cash flows discounted at the original effective interest rate. Impairment loss in respect of a financial asset measured at fair value is determined by reference to that fair value. All impairment losses are recognized in statement of income and expenditure. An impairment loss is reversed if the reversal can be related objectively to an event occurring after the impairment loss was recognized. An impairment loss is reversed only to the extent that the financial asset's carrying amount after the reversal does not exceed the carrying amount that would have been determined, net of amortization, if no impairment loss had been recognized. Reversal of impairment loss is recognized in statement of income and expenditure except in the case of available for sale instruments where this reversal is included in other comprehensive income.

Non-financial assets

The carrying amount of the Company's non-financial assets, other than inventories and deferred tax assets are reviewed at each reporting date to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. The recoverable amount of an asset or cash generating unit is the greater of its value in use and its fair value less cost to sell. In assessing value in use, the estimated future cash flows are discounted to their present values using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or cash generating unit.

An impairment loss is recognized if the carrying amount of the assets or its cash generating unit exceeds its estimated recoverable amount. Impairment losses are recognized in statement of income and expenditure. Impairment losses recognized in respect of cash generating units are allocated to reduce the carrying amounts of the assets in a unit on a pro rata basis. Impairment losses recognized in prior periods are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to that extent that the asset's carrying amount after the reversal does not exceed the carrying amount that would have been determined, net of depreciation and amortization, if no impairment loss had been recognized.

6.13 Trade debts

Trade debts are carried at original invoice amount less an estimate made for doubtful debts based on review of outstanding amounts at the year end. Bad debts are written off when identified.

6.14 Cash and cash equivalents

Cash and cash equivalents comprise of cash in hand and at bank and short term investments with maturities of three months or less. These are readily convertible to known amount of cash therefore they are subject to insignificant risk of changes in value and are used by the Company in the management of its short-term commitments.

6.15 Loans and receivables

Loans and receivables are recognized initially at fair value, plus attributable transaction costs. Subsequent to initial recognition, loans and receivables are stated at amortized cost with any difference between cost and redemption value being recognized in the statement of income and expenditure over the period of the investments on an effective yield method.

6.16 Financial instruments

Financial assets comprise of deposits, trade debts, other receivable, short term investments and balance with banks and financial liabilities comprise of long term financing, trade and other payables, accrued mark up, deposits and loan from the Government of Punjab. Financial assets and liabilities are recognized when the Company becomes party to the contractual provisions of the instruments. Financial assets are de-recognized when the Company loses control of the contractual rights that comprise the financial assets. Financial liabilities are de-recognized when they are extinguished, that is, when the obligation specified in the contract is extinguished, cancelled, or expired. Any gain or loss on de-recognition of the financial assets and financial liabilities is taken to statement of income and expenditure.

Non-derivative financial liabilities are initially recognized at fair value less any directly attributable transaction costs. Subsequent to initial recognition, these liabilities are measured at amortized cost using effective interest method. The carrying values of liabilities approximates to their amortized cost.

Offsetting of financial assets and financial liabilities

Financial assets and liabilities are offset and the net amount reported in the statement of financial position when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis, or realize the asset and settle the liability simultaneously.

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PUNJAB INDUSTRIAL ESTATES DEVELOPMENT AND MANAGEMENT COMPANY

(a company set up under section 42 of the repealed Companies Ordinance, 1984. Now Companies Act, 2017)

Notes to the Financial Statements

For the year ended June 30, 2018

6.17 Revenue

Revenue is recognized to the extent that it is probable that the economic benefits will flow to the Company and the revenue can be measured reliably. Revenue is measured at fair value of consideration received or receivable on the following basis:

- Revenue from sale of industrial plots is recognized at the completion of the project for its intended use by the owner of the plot and the chances of cancellation of the allotment of the plot is remote at which stage the Company determines that the risks and rewards associated to sale of plot is transferred to the buyer.
- Revenue from electricity bills is recognized on the basis of electricity supplied to customers at rates determined by NEPRA for LESCO. Electricity sale is recorded on accrual basis i.e. when the consumers have consumed the electricity supplied.
- Fee and other charges are charged to customers at prescribed rates and they are recognized as income on accrual basis.
- Operations and maintenance charges billed to customers are recorded on accrual basis.
- Non-utilization fee is recognized if the project is not completed in accordance with terms of allotment of the plot and the recovery of the fee is certain.
- Return on bank deposits is recognized as and when accrued on effective interest method.
- Miscellaneous income represents fee for providing temporary connections and repair/replacement of cables and temporary meters. The fee for installation/replacement of temporary connections is recognized on installation of meters at allottees' sites. The income related to repair of meters and cables is recognized on performance of repair and maintenance services.

6.18 Advances received for sale of plots

Advances received from customers against sale of plots are stated at cost. They are recognized as revenue when the chances of cancellation of the allotted plot are remote and the customer has completed the project.

6.19 Deferred Income

Amount received from customers for electric transformers are recognized as deferred income and recognized as income over the useful life of the transformers from the date of installation.

6.20 Summary of significant events and transactions

- Due to the first time application of financial reporting requirements under the Companies Act, 2017 and NPO standards, including disclosure and presentation requirements of the fifth schedule of the Companies Act, 2017, the Company has presented additional disclosures in these financial statements and represented certain comparative figures.
- During the year, the Company has purchased property plant and equipment amounting to Rs. 173 million; and
- During the year, the Company had disposed off investment amounting to Rs. 200 million.

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Notes to the Financial Statements

For the year ended June 30, 2018

6.21 Effect of restatement:

- (a) During the year, due to application of the Companies Act, 2017 and NPO standards, the Company has changed its accounting policies w.r.t. amortization of subsidie loans obtained from sponsors. The Company has recognised the present value effect of low interest-bearing loan from Government of Punjab in statement of financial position as government grant. Loans or similar assistances provided by Governments or similar institutions with an interest free loan or interest rate below the current applicable market rate is recorded as government grant. The effect has been incorporated by restating the comparative figures.
- The Company had originally recognised the present value effect of low interest-bearing loan from Government of Punjab in statement of changes in equity being loan provided by the Government of Punjab in the capacity of shareholder. (TR-32 issued by ICAP).
- (b) The Company has restated grants received from sponsors for setting up a pharmaceutical laboratory at Sunder Industrial Estate and acquisition of land and development of new industrial estate in Gujrat and which had been included in equity in accordance with TR-32 of ICAP previously.

Effect of restatements are as follows:

Original	Effect of Restatement	Restated
Rupees		
Balance as at 30/06/2016	Increase/(Decrease)	Balance as at 30/06/2016
Statement of changes in equity		
Accumulated surplus	1,789,019,559	552,528,540
Equity portion of shareholder loan	2,062,496,880	(2,062,496,880)
Net Decrease in Statement of changes in equity		(1,509,968,320)

Statement of financial position		
Deferred credit	1,281,626,938	1,281,626,938
Deferred Grants	328,341,382	228,341,382
Net Increase in Statement of financial position	1,509,968,320	

Original	Effect of Restatement	Restated
Rupees		
Balance as at 30/06/2017	Increase/(Decrease)	Balance as at 30/06/2017
Statement of changes in equity		
Accumulated surplus	1,859,770,288	1,094,549,357
Equity portion of shareholder loan	2,494,108,170	(2,494,108,170)
Net Decrease in Statement of changes in equity		(1,399,558,813)

Statement of financial position		
Deferred credit	1,181,505,985	1,181,505,985
Deferred Grants	218,052,828	218,052,828
Net Increase in Statement of financial position	1,399,558,813	

Original	Effect of Restatement	Restated
Rupees		
For the year ended 30/06/2017	Increase/(Decrease)	For the year ended 30/06/2017

Statement of Income and Expenditure and Other Comprehensive Income

Income		
Amortization of grants	10,288,554	10,288,554
Effect of discounting of interest free loan	542,020,800	542,020,800
Net Increase in Income and Expenditure	552,309,354	

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Notes to the Financial Statements
For the year ended June 30, 2018

	Note	2018 Rupees	2017 Rupees
7 Share capital			
Authorized share capital			
15,000,000 (2017:15,000,000) ordinary shares of rupees 10 each		150,000,000	150,000,000
Issued, subscribed and paid up capital			
5,000,000 (2017:5,000,000) ordinary shares of rupees 10 each fully paid in cash		50,000,000	50,000,000
		<u>50,000,000</u>	<u>50,000,000</u>
		2018	2017
	Note	Rupees	Rupees
			(Restated)
6 Long term financing			
Loan from Government of Punjab I	8.1	935,000,500	935,000,500
Loan from Government of Punjab II	8.2	151,000,000	151,000,000
Loan from Government of Punjab III	8.3	100,000,000	100,000,000
Loan from Government of Punjab IV	8.4	19,500,000	19,500,000
Sub total	8.5	1,205,500,500	1,205,500,500
Loan from Government of Punjab V- VI	8.6	250,000,000	250,000,000
Loan from Government of Punjab VII - 1st Tranche	8.7	3,315,668,001	3,315,668,001
Loan from Government of Punjab VII - 2nd Tranche	8.8	1,587,332,000	1,587,332,000
Loan from Government of Punjab VIII - A	8.9	470,000,000	470,000,000
Loan from Government of Punjab IX - A	8.10	1,650,000,000	1,650,000,000
Sub total		8,478,500,501	8,478,500,501
Less: Repayment of loan		(602,750,000)	(482,200,000)
Less: Deferred credit	10	(2,254,954,917)	(2,254,954,917)
		5,620,795,584	5,741,345,584
Opening balance of amortization		1,073,448,932	531,428,132
Add: Amortization of deferred income during the year		500,532,835	542,020,800
	8.11 & 8.12	1,573,981,767	1,073,448,932
Total Financing		7,194,777,351	6,814,794,516
Less: Current portion of long term financing	8.13	(4,901,106,001)	(3,026,772,666)
		<u>2,293,671,350</u>	<u>3,788,021,849</u>

- 8.1 This represents loan from the Government of Punjab for development of infrastructure and ancillary facilities at Sundar Industrial Estate. For terms refer to Note 8.5.
- 8.2 This represents loan from the Government of Punjab for the establishment of Vehari Industrial Estate. For terms refer to Note 8.5.
- 8.3 This represents loan from the Government of Punjab for shifting of Hazardous Industries from city to Sundar Industrial Estate. For terms refer to Note 8.5.
- 8.4 This represents loan from Government of Punjab on behalf of Punjab Environmental Effluent Treatment Company ("PEETCO"), a related party, for combined effluent treatment plant at Sundar Industrial Estate. (For terms refer to Note 8.5).
- 8.5 Aggregate amount of loan of Rs.1,205.50 million is repayable in ten equal annual instalments commenced from 31 December 2013 and carries mark-up at the rate of 0.25% per annum. Penalty on overdue payments is chargeable at the rate of 4% per annum.
- 8.6 This represents loan received from the Government of Punjab of Rs. 150 million for establishment of Vehari Industrial Estate and Rs. 100 million for shifting of Hazardous Industries from City to Sundar Industrial Estate. The loan is repayable in three equal annual instalments commencing from 30 June 2017 and carries mark-up at the rate of 0.25% per annum. Penalty on overdue payments is chargeable at the rate of 4% per annum.
- 8.7 This represents loan received from the Government of Punjab for the establishment of Quaid-e-Azam Business Park Sheikhupura. The loan was received in the form of land having award value of Rs. 3316 million with area measuring 1,562 acres during the year ended 30 June 2014. The loan is repayable in three equal annual instalments commencing from 30 June 2017 and carries mark-up at the rate of 0.25% per annum. Penalty on overdue payments is chargeable at the rate of 4% per annum.
- 8.8 This represents loan received during 30 June 2015 from the Government of Punjab for the establishment of Quaid-e-Azam Business Park Sheikhupura. The loan is repayable in three equal annual instalments commencing from 30 June 2018 and carries mark-up at the rate of 0.25% per annum. Penalty on overdue payments is chargeable at the rate of 4% per annum.

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PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
CHARTERED ACCOUNTANTS

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PUNJAB INDUSTRIAL ESTATES DEVELOPMENT AND MANAGEMENT COMPANY

(a company set up under section-12 of the repealed Companies Ordinance, 1984, Now Companies Act, 2017)

Notes to the Financial Statements

For the year ended June 30, 2018

- 8.9 This represents loan received last year from the Government of Punjab for the establishment of Chunian Industrial Estate. The loan is repayable in three equal annual instalments commencing from 30 June 2019 and carries mark-up at the rate of 0.25% per annum. Penalty on overdue payments is chargeable at the rate of 4% per annum.
- 8.10 This represents loan received during 30 June 2017 from the Government of Punjab for the establishment of Qaid-e-Azam Apparel Park Sheikhupur. The loan is repayable in three equal annual instalments commencing from 30 June 2020 and carries mark-up at the rate of 0.25% per annum. Penalty on overdue payments is chargeable at the rate of 4% per annum.
- 8.11 This represents difference between amortized cost and face-value of loan. Amortized cost has been determined using effective mark-up at 9.83% per annum.
- 8.12 The Company has recognised the present value effect of low interest bearing loan from the Government of Punjab in statement of financial position as deferred credit.
- 8.13 This includes an overdue amount of Rs. 4,298 million (2017: Rs. 1,188.56 million) at year end.

	Note	2018 Rupees	2017 Rupees
9 Deferred income			
Opening balance		168,275,489	101,097,885
Receipt from customers during the year		52,562,969	85,874,870
Amortization during the year	30	(19,005,829)	(18,697,266)
Closing balance as at 30 June		201,832,629	168,275,489

	Note	2018 Rupees	2017 Rupees (Restated)
10 Deferred credit			
Opening balance		2,254,954,917	2,254,954,917
Less: accumulated amortization	8	(1,573,981,767)	(1,073,448,932)
Closing balance as at 30 June		680,973,150	1,181,505,985

11 Deferred grants			
Opening balance	11.1	218,052,828	228,341,382
Grants received during the year		218,052,828	228,341,382
Grants amortized related to income		(7,746,282)	(10,288,554)
Grants amortized related to assets		210,306,546	218,052,828
Closing balance as at 30 June		210,306,546	218,052,828

- 11.1 This includes grant of Rs. 80 million from the Government of Punjab for setting up a pharmaceutical laboratory at Sunder Industrial Estate and Rs. 180 million received in cash for acquisition of land and development of new industrial estate in Gujrat. No development work has been started till 30 June 2018 in Gujrat Industrial Estate.

12 Deferred liabilities

The latest actuarial valuation of the Company's defined benefit gratuity scheme was conducted on 30 June 2018 using projected unit credit method. Details of obligation for defined benefit gratuity scheme is as follows:

	Note	2018 Rupees	2017 Rupees
12.1 Present value of defined benefit obligation		134,058,736	93,239,370
Fair value of plan assets		(101,027,092)	(74,694,028)
Liability as at 30 June		33,031,644	18,545,342

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PUNJAB INDUSTRIAL ESTATES
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Notes to the Financial Statements

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	Note	2018 Rupees	2017 Rupees
12.2 Movement in liability for defined benefit obligation			
Present value of defined benefit obligation at beginning of the year		93,239,370	76,264,035
Current service cost for the year		30,929,630	20,623,025
Interest cost for the year		7,911,270	4,680,335
Benefits due but not paid		-	(5,505,646)
Benefits paid		(13,708,582)	(17,909,727)
Advance benefits paid		(1,715,668)	-
Experience adjustments actuarial loss		17,402,716	15,087,348
Present value of defined benefit obligation at end of year		<u>134,058,736</u>	<u>93,239,370</u>
12.3 Comparative amounts of five years			
			Rupees
30 June 2016			<u>76,264,035</u>
30 June 2015			<u>64,329,173</u>
30 June 2014			<u>48,338,703</u>
30 June 2013			<u>36,614,004</u>
30 June 2012			<u>21,258,445</u>
	Note	2018 Rupees	2017 Rupees
12.4 Changes in fair value of plan assets			
Fair value of plan assets		74,694,028	67,712,848
Contributions		37,336,629	29,116,904
Interest income on plan assets		8,001,995	5,315,442
Benefits paid		(13,708,582)	(24,695,671)
Advance benefits paid		(1,715,668)	-
Experience adjustments on return on plan assets		(3,581,310)	(2,755,495)
Fair value of plan assets		<u>101,027,092</u>	<u>74,694,028</u>
12.5 Expenses to be charged to statement of income and expenditure			
Current service cost		30,929,630	20,623,025
Interest cost on defined benefit obligation		7,911,270	4,680,335
Interest income on plan assets		(8,001,995)	(5,315,442)
Expenses chargeable to statement of income and expenditure		<u>30,838,905</u>	<u>19,987,918</u>
12.6 Remeasurement chargeable in other comprehensive income			
Experience adjustments on plan obligations		17,402,716	15,087,348
Experience adjustments on return on plan assets		3,581,310	2,755,495
		<u>20,984,026</u>	<u>17,842,843</u>
12.7 Significant actuarial assumptions		2018	2017
Discount rate used for interest cost in statement of income and expenditure		8%	7%
Discount rate used for year-end obligation		7%	7%
Salary increase used for year-end obligations:			
Salary increase FY 2017		N/A	N/A
Salary increase FY 2018		7%	8%
Salary increase FY 2019		7%	8%
Salary increase FY 2020		7%	8%
Salary increase FY 2021		7%	8%
Salary increase FY 2022		7%	8%
Salary increase FY 2023 onward		7%	8%
Next salary is increased at		1/9/2018	01/09/2017
Mortality rates		SLIC 2001-05	SLIC 2001-05
Withdrawals rates		Setback 1 Year	Setback 1 Year
		Age-based	Age-based
		(per appendix)	(per appendix)
Retirement assumption		Age 60	Age 60

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Notes to the Financial Statements

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	Note	2018 Rupees	2017 Rupees
12.8 Expected expense for the next year			
Current service cost		32,561,620	25,443,635
Interest cost on defined benefit obligation		14,209,348	7,835,267
Interest income on plan assets		(10,456,333)	(7,466,880)
Amount chargeable to statement of income and expenditure		<u>36,314,635</u>	<u>25,812,022</u>
12.9 Year end sensitivity analysis on defined benefit obligation			
Discount rate increase by 100 bps		121,593,765	84,467,265
Discount rate decrease by 100 bps		148,948,235	103,705,825
Salary increase by 100 bps		148,091,432	104,482,457
Salary decrease by 100 bps		<u>121,378,746</u>	<u>83,629,724</u>

	Note	2018 Rupees	2017 Rupees
13 Loan from the Government of Punjab - unsecured			
Loan VIII - B	13.1.1	103,203,387	103,203,387
Loan IX - B	13.1.2	132,000,000	132,000,000
Loan X	13.1.3	130,566,562	130,566,562
Loan XI	13.1.4	1,064,085,000	1,064,085,000
		<u>1,429,854,949</u>	<u>1,429,854,949</u>

13.1.1 The represents land sold by the Government of Punjab (GoPb) to the Company for the establishment of Chunian Industrial Estate having award value of Rs. 103.20 million with area measuring 130.11 acres during the year ended 30 June 2014. In accordance with letter received from the GoPb sale price of such land will be converted into loan after finalization of specified terms and condition with the Finance Department. Since the terms and conditions are not finalized, accordingly this loan has been classified as short term loan.

13.1.2 The represents land sold by the Government of Punjab (GoPb) to the Company for the establishment of Vehni Industrial Estate having award value of Rs. 132 million with area measuring 200 acres during the year ended 30 June 2012. In accordance with letter received from the GoPb sale price of such land will be converted into loan after finalization of specified terms and condition with the Finance Department. Since the terms and conditions are not finalized, accordingly this loan has been classified as short term loan.

13.1.3 The represents land sold by the Government of Punjab (GoPb) to the Company for the establishment of Bhalwal Industrial Estate having award value of Rs. 127.33 million and Rs. 3.24 million with area measuring 385.84 acres and 4.91 acres during the year ended 30 June 2011 and 2012, respectively. In accordance with letter received from the GoPb sale price of such land will be converted into loan after finalization of specified terms and condition with the Finance Department. Since the terms and conditions are not finalized, accordingly this loan has been classified as short term loan.

13.1.4 The represents land sold by the Government of Punjab (GoPb) to the Company for the establishment of Bahawalpur Industrial Estate having award value of Rs. 1,064.09 million with area measuring 483.18 acres during the year ended 30 June 2017. In accordance with letter received from the GoPb sale price of such land will be converted into loan after finalization of specified terms and condition with the Finance Department. Since the terms and conditions are not finalized, accordingly this loan has been classified as short term loan.

	Note	2018 Rupees	2017 Rupees
14 Trade and other payables			
Creditors		538,333,525	175,726,143
Advances from customers		166,550,778	120,959,145
Accrued liabilities		33,127,819	25,805,742
Bills payable		258,188,366	86,029,182
Retention money payable		331,624,164	324,779,841
With holding tax payable		108,611,346	151,129,353
Payable to innery zone allottees		2,923,403	2,923,403
Gratuity due but not paid			6,635,444
Other payables	14.1	104,011,630	8,563,988
		<u>1,543,371,050</u>	<u>902,552,240</u>

14.1 This includes donation payable of Rs. 3,041,525 (2017: 3,041,525).

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ATTESTED TO BE TRUE COPY

PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
OWNED BY GOVT. OF PUNJAB

Company Secretary
SAMD
CONSULTANTS



**PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY**

EXPRESSION OF INTEREST

In the light of resolution passed by the Board of Directors in 104th BOD meeting held on July 21.

2016 The Company expresses its interest to provide credit from the resources owned by the

company

Chief Executive Officer



Head Office: Commercial Area (North) Sundar Industrial Estate, Sundar-Rajpoot Road,
Tel: 042-35297203, Fax: 042-35297204
Website: www.samd.com
An Address by the People (Established in 1975) At the Service of the People

K

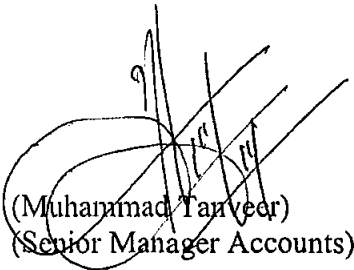
NET WORTH / DEBT & EQUITY RATIO



NET WORTH CERTIFICATE

This is to certify that the **Net worth of M/s. Punjab Industrial Estate Development & Management Company** as on June 30, 2018, was **Rupees 3,051.50 million** only, as per the computation attached **annexure "A"**. It is further certified that the computation of Net worth is based on Audited Accounts for the Financial Year 2017-18 audited by independent auditors.

For and on behalf of PIEDMC


(Muhammad Tanveer)
(Senior Manager Accounts)

Date:





COMPUTATION OF NET WORTH

The net worth has been computed as per the format given below for the Financial Year Ending June 30, 2018.

Particulars	Rupees In Million
Paid up Capital (A)	50.00
Add: Equity Share Premium (B)	-
Add: Reserve & Surplus (excluding revaluation reserves) (C)	3,001.81
Less : Statutory Reserves (D)	-
Less: Revaluation Reserves (E)	-
Less: Accumulated losses if any – (F)	-
Less: Intangible Assets included in the balance sheet (G)	0.31
Less: Miscellaneous Expenditure to the extent not written off– (H)	-
Total Net worth ((A+B+C)-(D+E+F+G+H))	3,051.50



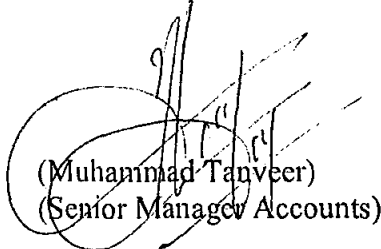


NET DEBIT EQUITY RATIO CERTIFICATE

This is to certify that the **Debit Equity Ratio** of **M/s. Punjab Industrial Estate Development & Management Company** as on June 30, 2018, was **2.82** as per the computation given below. It is further certified that the computation of Debit Equity Ratio is based on Audited Accounts for the Financial Year 2017-18 audited by independent auditors.

Particulars	Financial Statement Note No.	Rupees In Million
Long term financing	8	2,293.67
Current portion of long term financing	8	4,901.11
Loan from the Govt. of Punjab - unsecured	13	1,429.86
Total Debit (A)		8,624.64
Paid up Capital	7	50.00
Excess of income over expenditure as per statement of change in equity		3,001.81
Total Equity (B)		3,051.81
Debit Equity Ratio (A/B*100)		2.82

For and on behalf of PIEDMC


(Muhammad Tanveer)
(Senior Manager Accounts)

Date:


SAMD
CONSULTANTS

4

**PROFILE OF THE APPLICANT AND THE
APPLICANT'S SENIOR MANAGEMENT
AND PROFESSIONAL STAFF**

**EMPLOYEMENT RECORDS OF
ENGINEERING AND TECHNICAL STAFF
OF THE APPLICANT PROPOSED TO BE
EMPLOYED**



PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
A Company setup under Section 42 of the Companies Ordinance, 1984 (now Companies Act, 2017)



List of the Board of Directors

Punjab Industrial Estates Development & Management Company

Sr. #	Name	Designation
1	Mr. Muhammad Anees Khawaja	Chairman / Independent Director
2	Mr. Yasir Asghar Bucha	Independent Director
3	Mr. Shahid Hussain Tarer	Independent Director
4	Mr. Shahzad Azam Khan	Independent Director
5	Mr. Sajid Saleem Minhas	Independent Director
6	Dr. Sumaira Rehman	Independent Director
7	Mr. Mian Abuzar Shad	Independent Director
8	Mr. Sohail Azhar	Independent Director
9	Mr. Obaid Ullah	Independent Director
10	Mr. Ali Mouazzam Syed Chief Executive Officer-PIEDMC	Ex-officio Director
11	Chief Executive Officer-PBIT	Ex-officio Director
12	Secretary, Industries, Commerce, Investment & Skill Development Department.	Ex-officio Director
13	Secretary, Finance Department	Ex-officio Director
14	Secretary, Labour & HR Department	Ex-officio Director
15	Chairperson TEVTA	Ex-officio Director

ATTESTED TO BE TRUE COPY

PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
OWNED BY: GOVT. OF PUNJAB



Head Office: Commercial Area (North) Sundar Industrial Estate, Sundar Raiwind Road, Lahore.
Tel: 042-35297203-6, Fax: 042-35297207, UAN: +92-42-111-743-743
Website: www.pie.com.pk E-Mail: info@pie.com.pk
An Approved Non Profit Organisation U/S 2(38) of Income Tax Ordinance 2001

SAMD
CONSULTANTS

THE COMPANIES ACT, 2017
THE COMPANIES (GENERAL PROVISIONS AND FORMS) REGULATIONS, 2018
[Section 197 and Regulations 4 & 20]

PARTICULARS OF DIRECTORS AND OFFICERS, INCLUDING THE CHIEF EXECUTIVE, SECRETARY, CHIEF FINANCIAL OFFICER, AUDITORS AND LEGAL ADVISER OR OF ANY CHANGE THEREIN

PART-I

(Please complete in typescript or in bold block capitals.)

1.1 CUN (Registration Number)

R P - 3 7 9

1.2 Name of the Company

Punjab Industrial Estates Development & Management Company

1.3 Fee Payment Details

1.3.1 Challan No.

1.3.2 Amount

500/-

PART-II

2. Particulars*:

Present Name in Full	NIC No. or passport No. in case of Foreign National	Father's/ Husband's Name	Usual Residential address	Designation	Nationality **	Business Occupation *** (if any)	Date of present appointment or change	Mode of appointment/ change / any other Remarks ****	Nature of directorship (nominee / independent/ additional/ other *****)
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
2.1 New appointment/election:									
Muhammad Anees Khawaja	36302-4648285-3	Khawaja Muhammad Younus	Mehr Manzil, O/S Lohari Gate, Multan.	Chairman / Independent Director	Pakistani	Business	01-04-2022	Re-appointed by the Govt. of the Punjab vide Notification # AEA-I-15-22/2002(P-V)	Independent

								of ICI&SD Department dated 01-04-2022	
Shahid Hussain Tareer	34101-9534689-9	Sadiq Hussain Tareer	House # 12/13, A/2, WAPDA Town, Gujranwala.	Independent Director	Pakistani	Business	01-04-2022	-do-	Independent
Dr. Sumaira Rehman	35202-9760853-0	Dr. Ch. Abdul Rehman	Superior University, 17-KM Mian Raiwind Road, Lahore.	Independent Director	Pakistani	Educationist	01-04-2022	-do-	Independent
Shahzad Azam Khan	35202-9862024-7	Muhammad Azam Khan	House # 7/1, Block B, Model Town, Lahore.	Independent Director	Pakistani	Business	01-04-2022	-do-	Independent
Yasir Asghar Bucha	35201-2545128-1	Noor Asghar Bucha	74 Peer Khurshid Company, Muhar.	Independent Director	Pakistani	Business	01-04-2022	Appointed by the Govt. of the Punjab vide Notification # AEA-I-15- 22/2002(P-V) of ICI&SD Department dated 01-04-2022	Independent
Mian Abuzar Shad	35202-2532223-9	Mian Muhammad Shafi	170-H, Model Town, Lahore	Independent Director	Pakistani	Business	01-04-2022	-do-	Independent
Obaid Ullah	35202-9589038-1	Asad Ullah	Muhammad Umer Riaz Law Associates, 6-Begum Road, Lahore.	Independent Director	Pakistani	Legal Consultant	01-04-2022	-do-	Independent

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Sajid Saleem Minhas	35202-0669048-7	Muhammad Saleem Minhas	House # 79-C, DHA, Phase-V, Lahore.	Independent Director	Pakistani	Business	01-04-2022	-do-	Independent
Sohail Azhar	35201-1348146-1	Azhar Ameen Sheikh	H # 83, St 16, Cavalry Ground Extension, Lahore Cantt.	Independent Director	Pakistani	Business	01-04-2022	-do-	Independent
Mr. Ahmer ud Din Mallick Chief Executive Officer PBIT	35201-1308058-9	Saif ud Din Mallick	Punjab Board of Investment & Trade, 23 Aikman Road, GOR-1, Lahore.	Ex-Officio Director	Pakistani	PBIT Employee	01-04-2022	-do-	Ex-Officio Director
Ali Muazzam Syed	35202-8279686-3	Aslam Bahar Syed	H # 504, DHA Phase 3, Lahore.	Ex-Officio Director	Pakistani	PIEDMC Employee	01-04-2022	Given additional charge of CEO	Ex-Officio Director
Wasif Khurshid Secretary, Industries Commerce & Investment	36302-9171740-9	Khurshid Ahmad Anwer	Old P&D Building, 2-Bank Road, Lahore.	Ex-Officio Director	Pakistani	Govt. Employee	03-11-2021	Appointed in place of Cap. (Retd) Muhammad Zafar Iqbal	Ex-Officio Director
Iftikhar Amjad Secretary, Finance Department	35202-2994923-9	Muhammad Amjad	Civil Secretariat, Lahore.	Ex-Officio Director	Pakistani	Govt. Employee	01-12-2021	Appointed in place of Muhammad Abdullah Khan Sumbal	Ex-Officio Director
Dr. Muhammad Suhail Secretary, Labour & Human Resource Department	33100-0640328-3	Ghulam Haider Chatha	Old P&D Building, 2-Bank Road, Lahore.	Ex-Officio Director	Pakistani	Govt. Employee	10-12-2021	Appointed in place of Liaqat Ali Chatha	Ex-Officio Director

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Ali Salman Siddique Chairperson TEVTA	35202-8706528-5	Salman Siddique	96-Gulberg Road, Lahore.	Ex-Officio Director	Pakistani	Private Sector	01-04-2022	Appointed in place of Hafiz Farhat Abbas	Ex-Officio Director
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2.2 Ceasing of office/Retirement/Resignation:

Syed Nabeel Hashmi	35202-5698574-5	Syed Quwat Ali Shah	Thermosole Industries (Pvt.) Ltd. 140 main industrial area, Kot Lakhat, Lahore.	Chairman	Pakistani	Business	12-12-2021	Ceased of office	Independent
Ahsan Mahmood Butt	35201-1606258-9	Asim Hussain Butt	M/s FAS Tube Mills & Engineering Plot # 457- 460, Sundar Industrial Estate, Lahore.	Independent Director	Pakistani	Business	12-12-2021	-do-	Independent
Khawaja Arif Qasim	35202-4601928-1	Sheikh Muhammad Qasim	125-A Quaid-e- Azam Industrial Estate, Kot Lakhat, Lahore.	Independent Director	Pakistani	Business	12-12-2021	-do-	Independent
Syed Tariq Siraj Jafri	35202-2595174-1	Syed Siraj ul Hassan Jafri	68-Block-B, Model Town, Lahore.	Independent Director	Pakistani	Business	12-12-2021	-do-	Independent
Usman Aslam Malik	35201-1555409-1	Malik Muhammad Aslam Khan	M/s Koretec Auto Industries, 16 KM, Muhan Road, Lahore.	Independent Director	Pakistani	Business	12-12-2021	-do-	Independent

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Muhammad Anees Khawaja	36302-4648285-3	Khawaja Muhammad Younus	Mehr Manzil, O/S Lohari Gate, Multan.	Independent Director	Pakistani	Business	12-12-2021	Re-appointed	Independent
Shahid Hussain Tarer	34101-9534689-9	Sadiq Hussain Tarer	House # 12/13, A/2, WAPDA Town, Gujranwala.	Independent Director	Pakistani	Business	12-12-2021	-do-	Independent
Dr. Sumaira Rehman	35202-9760853-0	Dr. Ch. Abdul Rehman	Superior University, 17-KM Mian Raiwind Road, Lahore.	Independent Director	Pakistani	Educationist	12-12-2021	-do-	Independent
Shahzad Azam Khan	35202-9862024-7	Muhammad Azam Khan	House # 7/1, Block B, Model Town, Lahore.	Independent Director	Pakistani	Business	12-12-2021	-do-	Independent

- * In the case of a firm, the full name, address and above-mentioned particulars of each partner, and the date on which each became a partner.
- ** In case the nationality is not the nationality of origin, provide the nationality of origin as well.
- *** Also provide particulars of other directorships or offices held, if any."
- **** In case of resignation of a director, the resignation letter and in case of removal of a director, member's resolution be attached.
- ***** In case of a director nominated by a member or creditor the name of such nominating or appointing body shall also be mentioned in column (j), and a copy of resolution from the nominating or appointing body be attached.

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PART-III

3.1

Declaration:

I do hereby solemnly; and sincerely declare that the information provided in the form is:

- i. true and correct to the best of my knowledge, in consonance with the record as maintained by the Company and nothing has been concealed; and
- ii. hereby reported after complying with and fulfilling all requirements under the relevant provisions of law, rules, regulations, directives, circulars and notifications whichever is applicable.

3.2 Name of Authorized Officer with designation
/Authorized Intermediary

M. Shafiq-ur-Rehman

Acting Company Secretary

3.3 Signatures

3.4 Registration No of Authorized Intermediary, if applicable

3.5 Date

Day

1	2
---	---

Month

0	4
---	---

Year

2	0	2	2
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[Signature]
DISTRICT OFFICER UPRA
For Registrar Joint Stock Companies
Lahore

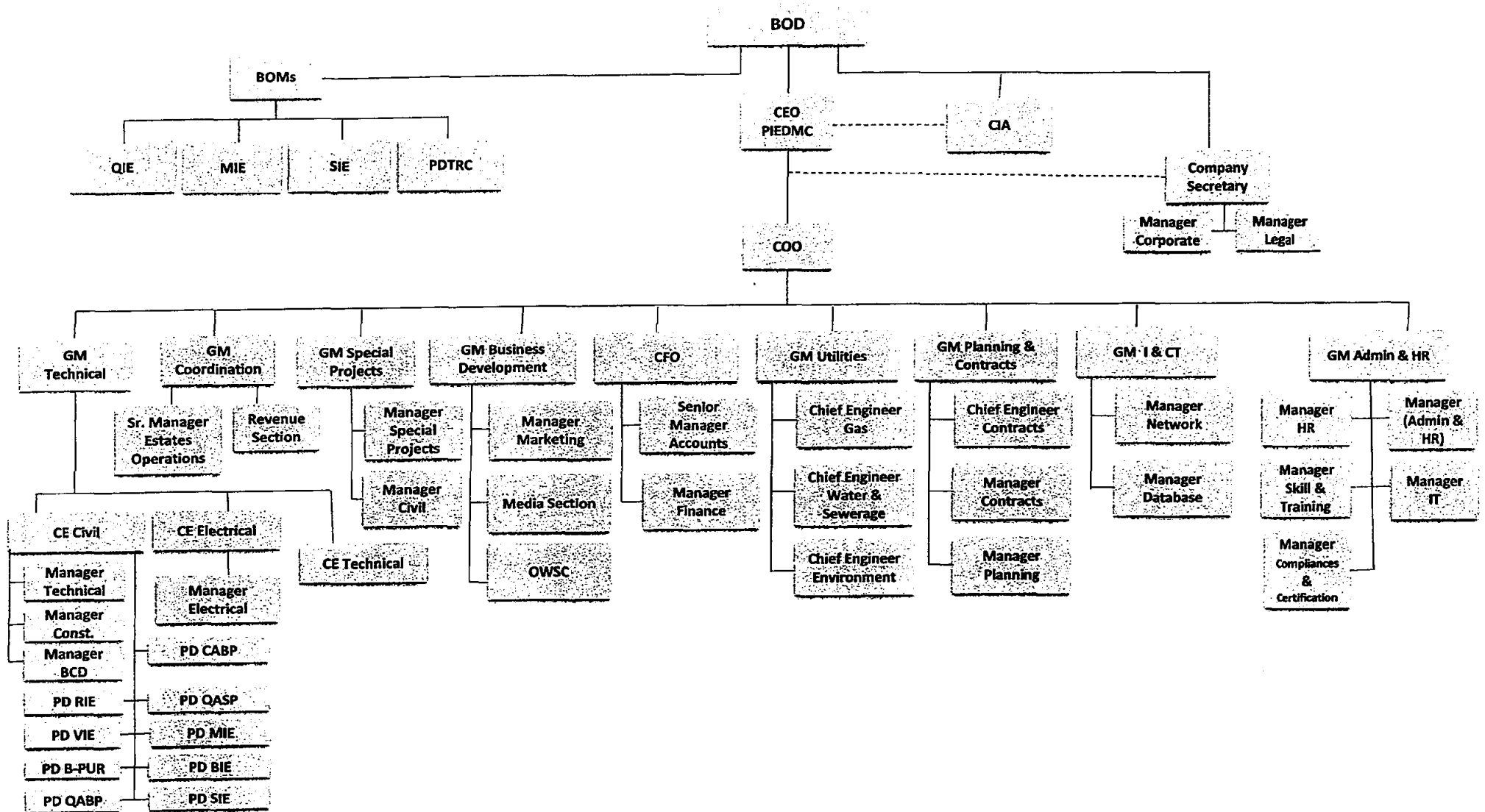
[Signature]
DISTRICT OFFICER UPRA
For Registrar Joint Stock Companies
Lahore

Punjab Industrial Estates Deployment and Management Company (PIEDMC)

Employees Data Head Office

Official Data

S. No.	Emp. No.	Employee Name	Designation	Department	Deployed	Grade	Date of Joining	Qualification
1	1319	Ali Muazzam Syed	CEO-PIEDMC	CEO Office	Head Office	12	8-Jul-20	Msc (Transportation Engg), MBA (Finance)
2	432	Umar Saeed	GM Coordination	Coordination	Head Office	11	14-Mar-14	BSc. (Civil) & EMBA & M.Phil
3	1318	Farukh Elahi Johri	GM (Technical)	Engineering	Head Office	11	13-Apr-20	BSc Civil Engineering ME (Hon) Civil Engineering
4	1316	Amina Faisal	GM (Business Development)	Marketing	Head Office	11	27-Feb-20	MSc (Finance & Economics)
5	207	Muhammad Tanveer	Acting CFO	Accounts	Head Office	10	20-Aug-07	MBA (Finance)
6	1333	Tajdar Javed	Sr. Manager Estates Operations	Coordination	Head Office	10	29-Apr-22	MA & LLB
7	1315	Muneeb Ahmad Dar	Chief Engineer Electrical	Electrical	Head Office	10	10-Feb-20	BSc Electrical Engineering
8	936	Khizar Hayat	Project Director-CABP/QASP	Engineering	CABP Office	10	14-Jun-10	BSc. (Electrical)
9	404	Nouman Rafique	Chief Engineer Technical	Engineering	Head Office	10	9-Mar-11	Msc (Hydro Power Engg)
10	1177	Ahmad Ali	Acting GM (Planning & Contracts)	Planning & Contracts	Head Office	10	24-May-16	BSc (Civil)
11	910	Muhammad Aamir	Manager Electrical	Electrical	Head Office	9	4-Aug-08	MBA (HRM) & B-Tech (Hons) Electrical
12	1322	Sohail Anwar	Deputy Manager Electrical	Electrical	Head Office	8	20-Apr-21	BSc Electrical Engineering
13	907	Zia-ur-Rehman	Asst. Manager O & M	Electrical	VIE Office	7	10-Mar-08	DAE (Electrical)
14	1098	Haris Rashid	Electrical Engineer	Electrical	Head Office	6	15-Jan-14	BSc (Electrical)
15	1229	Muhammad Hashim Amin	Electrical Engineer	Electrical	Head Office	6	1-Dec-16	MS (Electrical Engineering)
16	1182	Sarfraz Ali	Junior Engineer Electrical	Electrical	QABP Office	5	20-Jul-16	BSc (Electrical) & MS Engg. Management
17	1012	Umar Sohail	Senior Technician (Electrical)	Electrical	RIE Office	5	26-Jul-11	Matric
18	1089	Muhammad Khan	Sub Engineer (Electrical)	Electrical	RIE Office	5	4-Mar-13	DAE (Electronics)
19	982	Syed Sana Haider	Sub Engineer (Electrical)	Electrical	BIE Office	5	1-Apr-11	Matric & DAE Electrical
20	984	Habib-ur-Rehman	Sub Enginer (Electrical)	Electrical	QABP Office	5	19-Aug-14	Matric & DAE Electrical
21	1249	Syed Ghazanfar Ali Naqvi	Electrical Supervisor	Electrical	MIE Office	4	11-Apr-17	DAE (Electrical)
22	1103	Ihtisham Ali	Electrical Helper	Electrical	Head Office	2	1-Sep-14	DAE (electronics)



ALI MUAZZAM SYED, PMP

Address: 504-XX, Defence Housing Authority, Phase-III, Lahore 54792

Tel: (042) 35693749, (0300) 4425953 E-mail: alimuazzamsyed@gmail.com

EDUCATION



The Ohio State University, The Fisher College of Business, Columbus, OH, USA
Master of Business Administration (MBA), Major: Operations & Logistics, June 2003
Major GPA: 3.5



Michigan State University, East Lansing, MI, USA
Master of Science in Civil Engineering (Major: Transportation), December 2000
Major GPA: 3.7



NUST (then MCE), Risalpur, Pakistan
Bachelor of Science in Civil Engineering, March 1990
Honour Division, Grade: A



The Ohio State University, The Fisher College of Business, Columbus, OH, USA
Six Sigma Black Belt Course, April 2009
Achieved Six Sigma Black Belt Certificate and 18 credit hours towards Masters of Business Operations

EXPERIENCE

GENERAL MANAGER – INFRASTRUCTURE – Khyber Pakhtunkhwa Economic Zones Development and Management Company, Peshawar; November 2016– To date

- Headed the technical department and a team of over 45 professionals.
- Rehabilitated three industrial estates (3000 acres) and developed one SEZ (424 acres).
- Provided complete engineering and technical support for launch of Rashakai SEZ under CPEC.
- Initiated new projects in different districts of KP.

CHIEF ENGINEER– Punjab Industrial Estates Development and Management Company, Lahore; November 2015 – November 2016

- Remained project director of Quaid-e-Azam Apparel Park in Sheikhpura.
- Managed all affairs related to successful project management.

**PROJECT DIRECTOR - Punjab Land Development Company, Lahore
November 2011 – November 2013**

- **Ashiana-e-Iqbal Housing Scheme, Lahore:** I headed the largest housing project in public sector designed for low income group (10,000 units) with an estimated cost of Rs. 14,000 Million. Led conception, land acquisition, and design phases.
- **Ashiana Housing Schemes, Bahawalpur, Kasur and Chiniot:** Headed these three housing projects worth 1,000 Million each. Led conception, land acquisition, and design phases.
- **Ashiana Housing Schemes, Sahiwal and Faisalabad:** Headed these two housing projects worth 1,000 Million each. Led conception, land acquisition, design, procurement and supervision phases.

**DIRECTOR INFRASTRUCTURE - Punjab Board of Investment & Trade, Lahore
June 2011 – November 2011**

- Advised investors, both local and overseas, on all infrastructure related investments.
- Developed project proposals for generating private / foreign investment.

TECHNICAL MANAGER/ OFFICIATING CEO – Punjab Industrial Estates Development and Management Company, Lahore; January 2004 – August 2010

- Held additional charge of CEO, whenever required.
- Headed and managed the most important division of the company, and held the senior most managerial position after CEO.
- Advised Chairman/ BOD/ BOM on all technical/ engineering and infrastructure related matters.
- Headed following projects:
 - o Development of Sundar Industrial Estate, Lahore - Rs. 4,000 Million (2004-2007)
 - o Rehabilitation of Quaid-e-Azam Industrial Estate - Rs. 535 Million (2005-2008)
 - o Rehabilitation of Multan Industrial Estate - Rs. 110 Million (2004-2005)
 - o Development of Multan Industrial Estate (Phase-II) - Rs. 900 Million (2006-2010)
- Performed all roles related to development of Sundar Industrial Estate right from conception, designing, procurement, supervision through till substantial completion and formal inauguration.
- Carried out successful upgradation of Multan and Quaid-e-Azam Industrial Estates. Received appreciations for excellent performance and results.
- Teamed up with Chairman and performed pivotal roles in raising the company.
- Ensured that all project deliverables meet stakeholders' requirements.
- Performed all roles involved in selection of consultants & contractors as per PPRA.
- Performed all roles involved in master planning of estates.
- Prepared 'Financial Plans/ Financial Models' of all projects and received appreciation for high quality of work.
- Prepared, without any outside assistance, feasibility reports/ proposals/ concept papers of new projects. Received appreciation for the high standards and quality of content and presentation.
- Represented company at high forums and gave presentations when required.
- Prepared PC-1/ PC-II, whenever required, for the approval of the Government and without any outside assistance.
- Prepared contract documents of small/ large projects, whenever required, meeting PEC/ FIDIC standards.
- Ensured efficient contract management to safeguard project interests.
- Performed contractual role(s), as assigned. Remained 'The Engineer' of all major projects.
- Ensured efficient project communication management, including schedules, reports etc.
- Prepared 'Building Bye Laws' and got BOD's approval. Suggested changes, whenever required, and sought BOD's approval.
- Performed building control functions including approval of building plans at Sundar Industrial Estate and for a limited duration in Multan and Quaid-e-Azam Industrial Estates.

**Teaching Associate – Corporate Finance, Fisher College of Business, Columbus, OH, USA
January 2003 – June 2003**

- Taught 600 level (senior level) corporate finance course to over 40 US students at the two regional campuses of the Ohio State University.

**MBA Intern – Behlen Manufacturing Company, Columbus, NE, USA
June 2002 – September 2002**

- Carried out financial analysis for both outsourcing and vertical integration options.
- Performed a detailed analysis on company's strategy of growth through acquisition.
- Developed a model for tubing division to allocate costs based on Activity Based Costing method.

**Transportation Engineer – Walter P. Moore & Associates, Inc., Houston, TX, USA
January 2001 – September 2001**

- Designed roads, highways, bridges and retaining walls in the city of Houston, TX.
- Planned improvement of underground utilities.
- Prepared detailed plans in team setting resulting in approval from local authorities.
- Advised and worked with clients in Houston, TX on matters related to traffic improvement, such as congestion reduction, installation of traffic signals/ traffic signs, speed improvement, traffic safety and noise mitigation.

*Research Assistant – Department of Civil Engineering, M.S.U, East Lansing, MI, USA
August 1999 – December 2000*

Carried out research with a group of faculty members of the 'Department of Civil and Environment Engineering' on following projects for Michigan DOT:

- Traffic congestion and conversion of 4 lane roads to 3 lane roads in East Lansing, MI.
- Parking problems and conversion of one way streets to two way streets in downtown Lansing, MI.

Pakistan Army – Corps of Engineer, Sep 1984 – May 1999

Garrison Engineer – Nowshera Cantonment, Pakistan, March 1995 – May 1999

- Managed over 700 personnel including engineers, technicians, tradesmen and laborers.
- Prepared 'Master Plan' for development of Nowshera Cantt for next 25 years (till 2020).
- As 'ex-officio member' of Cantonment Board played active role in the development of Nowshera cantonment and in welfare of its residents. Acted as 'Appellate Authority' on building control matters.
- Advised clients in preparation and planning of future civil engineering projects.
- Executed all civil engineering works, including both new and maintenance works.
- Carried out all procurements and local purchases.
- Ensured uninterrupted flow of utility services in area of responsibility.
- Maintained the optimum level of inventory for all day-to-day business.
- Managed over 300 contracts, successfully closed all of them. Revived sick projects and settled outstanding audit objections which were pending for years.

Frontier Works Organization, Shikarpur, Pakistan, October 1992 – March 1995

- Worked as 'Assistant Project Manager (Procurement)' on 100 KM highway project (N-55), Ratodero-Shikarpur section.
- Located sources of construction materials and got approval from local and international consultants.
- Ensured uninterrupted supply to all sections of the road.

Corps of Engineers – Pakistan Army, September 1984 – October 1992

- Served in various battalions of Pakistan Army, Corps of Engineers after passing out in top 10 from Pakistan Military Academy, Kakul in September 1984.
- Attended courses of military instructions and always remained among top position holders in all of them.
- Always got letters of appreciations on outstanding performances in courses/ training.
- Performed various staff and field duties, with varying degrees of responsibilities.

SKILLS

- Technical/ Report writing
- Feasibility studies
- Statistical analysis
- Business plan writing
- Financial analysis including business valuation
- Presentation, both oral and written
- IT Skills, with proficiency in Microsoft Office (including Project), Visual Basic, Statistical Software, and Transportation/ Traffic packages etc.

PROFESSIONAL CERTIFICATIONS

- Project Management Professional (PMP), USA
- Six Sigma Black Belt Certificate from USA
- Plant Tissue Culture from PARC, Islamabad

PROFESSIONAL ACTIVITIES / AFFILIATIONS

- Member, Project Management Institute (USA)
- Member, Operations and Logistics Management Association (USA)
- Member, Institute of Transportation Engineers (USA)
- Member, Pakistan Engineering Council
- Member, Institute of Engineers, Pakistan



AMINA FAISAL

Address: House No. 109 G, Street 7, Phase V, DHA, Lahore, Pakistan.
Email: aminafaisal@gmail.com
Contact: +92 305 4583143

Looking for a strategic role in dynamic organization where I can enhance my leadership, decision making & analytical skills among a diversified group of people passionate for innovation & growth.

Career Highlights

- Masters in Finance and Economics from Lahore School of Economics. Certificate in Human Resource with distinction from Northern Sydney Institute of TAFE, Australia. Certificate from Canberra (Australia) Institute of Technology in MYOB Accounting.
- A diversified experience of over 15 years out of which 10 plus years are of working outside Pakistan.
- Currently working as Marketing Manager of Punjab Industrial Estates from August 2017 to date. My role is to make marketing strategies, Marketing plans, product development, branding, design and coordinate promotional campaigns & PR and make strategic partnerships.
- Worked as Business Head for Cold Stone Creamery Pakistan for more than 2 years. During that tenure I was leading 100 plus staff spread all across Pakistan. Opened in all major cities of Pakistan 5 Cold Stone Creamery outlets in 1 year. The opening included identifying potential sites, negotiations with the mall management/land lords, discussions with architect, opening of stores with launch events.
- Recognized by the foreign principals year on year (Kahala Management USA) for the outstanding work in managing the stores as per the worldwide Standard Operating Procedures.
- Well versed with the local laws and regulations pertaining to food industry, labor laws, and taxation laws in all cities of Pakistan. Participated in international trainings of Cold Stone Creamery and also led the team in international competitions and won prizes and position at international level.
- Successfully launched a Womenswear brand 'BONITA' for Chenone and also executed a nationwide brand campaign worth Rs 5 million increasing their sales by 25% for that quarter.
- Rebranded and re launched the international footwear brand 'Pretty Fit' in Pakistan.

Key Professional Skills & Personal Attributes:

- Extensive project management skills to take a project from conceptual stage to completion stage.
- Widespread operations and marketing experience within the retail sector. That includes planning and execution of marketing campaigns.
- Excellent written, communicational and interpersonal skills acquired through my project management experience and liaising with multiple stakeholders at different levels.
- Ability to plan, prioritize and schedule various types of work in detail.
- With the education in Human Resource, I know how to make a team with the correct mix of skills and experience and the staff retention policy by keeping them motivated in their current roles.
- Ability to manage multiple tasks. Conducting, managing & completing a project within the defined timelines and costs.
- With my Masters in Economics and Finance, I am able to write analytical reports for the Board of Directors enabling them to form an opinion.
- An accountancy professional with learnt skills of Sustainability, CSR, Integrated Reporting IR, Startups and Business incubation and Entrepreneurship

Quick learner & proactive behavior	Multi tasker	Excellent analytical thinking
Organization development & entrepreneurial skills	Management, team leadership & decision making skills	Effective business communication and client relationship skills

Professional Achievements (evidenced for attributes mentioned above):

- Attended Trainings from the Platform of Punjab Industrial Estates on PPPs and Project financing in 2017.
- Attended session on Capacity Building organized by the Planning and Development Department of Public and Private Partnership Cell in 2017.
- Recognized internationally for setting up Cold Stone Creamery in Pakistan with a minimal involvement of Foreign Principals.
- Opened first Chenone women's wear standalone store in Lahore as the lead project manager.
- Re-branded and relaunched a restaurant (charcoal grill) with a strength of 100 plus staff.
- Responsible for maintaining the cost and budget associated to each assignment and have been able to meet the target revenues with an average growth of 50% (standard 25%) with no bad debts history.
- Did Human Resource courses from Australia and also did courses for accounting software as well.
- The certificate I did in Human Resources, I was the only candidate who got distinction in the following 4 areas:
 - o Human Resource Policies and Practices.
 - o Coordination of Human Resource Services.
 - o How to Process Job Vacancies.

- o Training and Development.
- Passed all the exams from Graduation to masters in first attempts.

Professional Experience

Punjab Industrial Estates Development and Management Company,
Government of Punjab, Lahore, Pakistan

Working as "Manager Marketing", August 2017 to date

Responsibilities Are:

1. Liaise with other departments to guide a unified approach to customer service, distribution etc. that meets market demands
2. Define marketing strategies to support the company's overall strategies and objectives
3. Develop a feasible marketing plan for the department and oversee its day-to-day implementation
4. Plan and organize marketing functions and operations (product development, branding, communications etc.), and ensure they project the company's unique "voice"
5. Design and coordinate promotional campaigns, PR and other marketing efforts across channels (digital, press etc.)
6. Create a solid network of strategic partnership ensuring all business aspects of master agreement are implemented and followed.
7. Ensuring all products, marketing initiatives and operations systems are aligned appropriately
8. Ensuring consistent image, brand / product compliance and customer satisfaction is met at every level

Venus Pakistan (Private) Limited, Lahore, Pakistan

Worked as "Business Head for Cold Stone Creamery Pakistan", April 2015 - July 2017

Responsibilities/Accomplishments Were:

1. Ensuring all business aspects of Master Agreement are implemented and followed
2. Ensuring all products, marketing initiatives and operations systems are aligned appropriately
3. Ensuring consistent image, brand / product compliance and customer satisfaction is met at the store level and corporate level
4. Providing brand positioning and strategic direction for the development of the brand in the territory Overseeing and ensure all roles, responsibilities, and programs (from store manager to training manager to all corporate positions including Marketing, PR, Logistics, Construction, Store Design, Development) are implemented as appropriate
5. Overseeing all store operations including inventory and ordering
6. Overseeing recruitment and training of staff
7. Identifying potential locations for new outlets
8. Complete rollout guides related to all marketing promotions customizes and create all marketing material
9. Staying current with marketing trends and implement promotions to increase sales
10. Responsible for marketing calendar
11. Handle all social media communications

Chenone Stores Limited, Lahore, Pakistan

Worked as "Project Manager", March 2013 – January 2015

Responsibilities/Accomplishments Were:

1. Developing the project plan and getting it approved by the management.
2. Site Selection and liaising with real estate groups.
3. Finalizing the store design and interior by working closely with the architects and interior design team. Working closely with the merchandising and product development department to finalize the product mix.
4. Coordinating with visual merchandiser and designers.
5. Marketing and branding (logos, brand shoot, and catalog).
6. Overseeing payroll, new hires and training of staff
7. Timely execution of the project keeping in line the budget.
8. Focusing on Employee Retention and key Employee identification initiatives.
9. Raising purchase orders, tracking goods movement.
10. Leading and motivating the team to reach the desired goal.
11. PR activities and launches

NAQSH Jewelry, Singapore

Worked as "Sales and Marketing Manager", February 2006 – June 2012

Singapore based online jewelry brand dealing in handmade Turkish jewelry

Responsibilities/Accomplishments Were:

1. Liaising with vendors in Turkey for sourcing
2. Placing the jewelry orders
3. Looking after the social media
4. Organizing exhibitions at various occasions like Diwali, Eid, Christmas etc
5. Responsible for meeting sales targets
6. Responsible for marketing and brand initiatives
7. Responsible for all PR and Media related activities

CHASE Recruitment, Singapore

Worked as "Recruitment Consultant", February 2001 – January 2005

A Sydney based recruitment agency specializing in recruiting for the retail industry

Responsibilities/Accomplishments Were:

1. Taking briefs from clients to assist with candidate searches and screening candidates profile
2. Conducting reference checks and managing candidate database – updating their files.
3. Responding to general candidate queries and arranging interviews, and doing follow.
4. Drafting and managing Internet & website advertisements.
5. Producing monthly Candidate 'Talent Bank'.
6. Pitching to new clients.
7. Monitoring of candidates and getting feedback from clients.

Qualification

- Master of Science – Finance and Economics from Lahore School of Economics 2000
- Bachelor of Arts from Kinnaird College Lahore 1998

Certification

- Certificate in Human Resources
Human Resources Policies & Practices (Distinction), Coordinate Human Resource Services (Distinction), Process Job Vacancies (Distinction), Training & Development (Distinction)
- Certificate from Canberra (Australia) Institute of Technology in MYOB Accounting.

Other information:

- Currently Residing in Pakistan
- Dual Nationality Holder (Pakistan and Australia)
- Previous Residency: Singapore & Australia
- DOB June 22, 1978
- Mother of a charming little girl

References available on request

Full Name	Farukh E Johri
Nationality	Pakistani
Education	B.Sc. Civil Engineering, 1990 Master of Engineering (Hons) Australia, 1992 Courses in Project Financing – Institute of Finance New York, 2012 Diploma in Project Management - 2018
Professional Qualifications	Member Institution of Engineers, Australia Member Project Management Institute Member Pakistan Engineering Council
Contact Details:	Email: fjohri@hotmail.com Mobile: +92 3094879620
New South Wales Licences:	- Driving 1C - NSW White Card – 10547298
Countries worked:	Australia, Qatar, UAE, Oman, Malaysia, Pakistan, Thailand, Singapore, Cambodia, Laos, , Afghanistan, Libya, UK, Macau, Hong Kong, Mauritius, Libya, and Republic of Fiji
Synopsis	<p>I am a Civil Engineer and working in transportation/infrastructure sector for last 29 years. I have extensive experience in Highway design & construction, Airport planning & Engineering, Rail and Port Development, Project/contract management, asset management and people management.</p> <p>Presently I am working with Surbana Jurong/SMEC Group as Director Transport in Lahore Office. I am responsible for the infrastructure projects worth over USD500million</p> <p>I had worked as Senior Project Manager with Ashghal (Qatar Public Works Authority) from 2014 to 2018. Ashghal (Public works Authority) is the government authority responsible for the infrastructure development in the State of Qatar. I was working on Local Roads and Drainage Programme which valued around USD35Billi. The works included monitoring progress of the construction works, site management, review of health and safety and Stakeholder management. Review of site and variation orders, Extension of time, Recovery plans, S curves, Earned values, CPI, SPI, Pre Tender estimates, prequalification of consultants and contractors and member of the interview committee.</p> <p>I also worked as Associate Director in AECOM/URS from 2003 to 2014. Farukh was responsible for the business development of Highways and Infrastructure section in South Asia and South East Asia which included Pakistan, Myammar, Cambodia, Malaysia, Laos, Vietnam, Thailand and Singapore. Business development included new projects, preparation of technical and financial proposals, risk</p>

management, tender board and submissions of proposals. The turnover of the sections was around US\$2million.

I have gained experience in Transportation Sector with broader background in Highway planning and Design, Project financing, budgeting, Aviation engineering and Pavement Engineering, construction materials and rail sector. I have exposure to design methods such as Austroads, JKR, AASHTO, Saudi Arabia and Kuwait. I have in depth knowledge of Road planning and design, pavement design, drainage design mechanistic analysis of pavements using different computer software's. I had been involved in the design and construction of roads in different countries. Has extensive experience in using FAA, ASTM, ICAO such as Annex 14 standards in different aviation projects. I was deputy project manager for New Doha International Airport, the work included design of runways, aprons and taxiway system, geometrical design, pavement design, quantities and report writing. I was responsible for the new and rehabilitations design of pavements of major roads and airports in Australia, Middle East and Asia. I have used HDM-4 computer software on number of road projects, which included data collection, interpretation of data, Network level analysis, Project level analysis and performing economic analysis for the feasibility of the projects

I had been actively involved in the construction of roads and as RE worked on major road projects in Asia and Middle East. The work included overall supervision of contractor's work according to specifications, liaison with the client and the contractor on technical and management issues.

I have attended numerous seminars/ lectures on pavement engineering and presented technical papers at international conferences.

27.31
Professional History

September 2018 – To date

Director Transport – Surbana Jurong/SMEC Group

As a head of transport section, I am responsible for day to day running of the section, dealing with technical and financial issues, business development and HR issues for design and site offices. I am project director for the following projects:

- Construction Supervision of Sukkur Multan Motorway (392Kms) - Pakistan
- Feasibility study for preparation of Central Asia Regional Economic Cooperation Corridors 5 and 6 – Afghanistan – ADB funded.
- Central Asia Regional Economic Cooperation Regional Improving Border Services (CAREC-RIBS) Project – ADB funded.
- GIS survey and Development of Geo Database for entire NHA road network, Approx. 12,000Kms



April 2018 –
September 2018


**Technical Adviser – Australasia Supply Chain Pty Ltd,
Sydney Australia**

Technical advice on the modular construction for residential and commercial buildings. Project manager for the modular building structure at Morree, NSW for the motel property. Prepared cost estimates, council's approval and reports.

June 2014 – Dec 2017

**Senior Projects Manager – Road Projects Management
Department (Ashghal) – Public Works Authority, Qatar**

3.7



I worked as Senior Project Manager in Roads Project Department for the QR 100Bn (US \$27 Bn) Local Roads and Drainage Programme. Ashghal has appointed Parsons Brinckerhoff as the Programme Management Consultant to provide world class infrastructure to the residents of Qatar and Doha in particular. Presently five (5) General Engineering Consultants have been appointed to provide Design and Construction Supervision services for the 220 projects. The appointment of Contractors under a Framework Agreement will commence in 2013.

The works include overall supervision of PMC and GEC, review baseline programmes, technical queries and project management, Approve Interim Payment Certificates, lead technical and progress meetings, liaison with stakeholders and overall responsibility of delivery of the project within stipulated time frame and budget. The infrastructure projects include highways, drainage, micro tunnelling, utilities, traffic management & diversion and construction works.

The work included review of EOT, site instructions, variation orders and Interim payment certificates. The monitoring of the construction works, progress works using S curves, Earned value, CPI, SPI and preparation of Dash Boards. Technical issues and stakeholder management on construction works.

The works are also included review of the positive and gravity drainage system, ground water, storm water system and TSE system. The review of micro tunnelling method statement, Quality plans, HSC plans, resource plans and contract documents. Also carried out the structural design of the slabs and beams for industrial buildings and residential dwellings including the associated works drainage, sewerage, foot paths, soft and hard landscape.

Project Manager for the following Projects:

- Contract C2015/46 – Roads and Infrastructure in Al Saliya – North of Salwa Road (Value QAR573 million)

- Contract C2014/53 – Muaitheer Area Sewage CP773/1 – DW050 Package 1 – (Value QAR117 million)
- C2014/037 – Flow Diversion Schemes in Al Wajba and New Al Rayyan (PS12 & PS12A) – (Value QAR118million)
- IA 14/15 C043 ST – Roads & Infrastructure in Muaitheer West Area (Value QAR 600million)
- DS16 Package 1 –Infrastructure development, Micro-tunneling and pump station.

June 2010 – May2014

URS
AECOM

**Associate Director – Head of Highways/Infrastructure
Section URS**

- Responsible for business development in South East Asia which includes Singapore, Thailand, Laos, Cambodia, Pakistan, Malaysia, Macau and Hong Kong.
- Responsible for highway/infrastructure including rail section in Kuala Lumpur office
- Proposal manager for the Terminal extension project as PMC (Project management consultant role) for the Brunei International Airport in association with NACO. The work included technical and financial proposals, presentation to the tender board, presentations to the client (BEDB, Brunei), review of the master plan study prepared by CPG Singapore.
- Project manager for the evaluation of airside pavements at Macau International airport. The work included, site investigation using HWD and GPR, visual inspection, rehabilitation designs project management and reporting (Consultancy fee US\$200,000)
- The project involves planning and design of all infrastructures for the proposed development to transform the pristine island of Koh Rong into Asia's first environmentally planned resort destination. The developments include an airport, marina, port and roads to proposed locations for resorts, hotels, golf courses, shopping, restaurants, bars and entertainment centres. Project Manager for the infrastructure planning and design and engineering design of the airport and roads which included design using FAA, ICAO guidelines, technical specifications and report writing.
- Deputy project manager for the approval of B747-8 on different airports in South East Asia including Indonesia, Malaysia, Macau, Thailand and Vietnam
- Project manager for the extension of East and West apron (Code C and Code E) at Phnom Penh International airport, Cambodia. The works included topographical survey, apron detailing, pavement design, technical specifications, mast lighting, positioning of aircrafts, line marking using ICAO guide lines drainage design and report writing.
- Proposal manager for the following railway projects:
 - Feasibility study for the Tram system in Malaka city
 - Pre-feasibility study for the Sabah rail
 - Noise and Vibration study for MRT project in Kuala Lumpur

- Review of railway feasibility prepared by Leighton Contractors for Kajian Peningkatan Infrastruktur Sediada Line. The work included review of alignment, traffic forecasting, construction cost and benefits. EIRR and NPV.
- GPR testing for the Double Tracking project in Malaysia. This involved using a combination of Ground Penetrating Radars (270MHz, 400MHz and 900MHz) for detection and mapping of shallow and deeper geotechnical features to identify extents and cause of the sinkholes. As Project manager responsible for the coordination of all works. Planned and organised fieldwork and operations. Supervised GPR fieldwork and operations. Analysed and interpreted GPR data and reporting.
- London North East S&C Trackbed Renewals, as Project Manager Used a variety of data from High Speed Track Recording Coach Data, Historic Track Quality Data, Engineering Walkover Surveys and Desk Studies to provide a comprehensive assessment of existing trackbed for 20 nos. proposed renewal sites within the London North Eastern Region.
- Proposal manager for the design and construction supervision works for the Bascule Bridge in Kuala Terengganu, Malaysia
- Proposal manager for the detailed design of terminal extension at Phnom Penh International Airport, Cambodia.
- Programme manager for the LDP, SPRINT and LATAR highways in Kuala Lumpur. Progress of the projects based on schedule, liaison with client and consultants on technical and financial issues.
- Project manager for the strengthening design of runway at Macau International Airport. The work included study of different asphalt overlay options on runway, whole of life costing, scheduling, risk assessment of each option and recommendations and reporting.

October 2003 to June 2010 Principal Engineer – Head of Highways/Pavement section
Scott Wilson Sdn Bhd, Malaysia

6.8
URS

Activities

- Overall, supervision of the engineers involved in the highways/pavement design works. This includes review of technical reports, liaison with staff on technical issues and site visits. Also responsible for the P&L of the section and budgeting.
- Review Traffic and rigid pavement designs for Hong Kong Disneyland Project - Hong Kong.
- Provided technical input during construction for Matak Airport strip refurbishment project - Indonesia.
- As a member of design team, carried out rehabilitation design for Karak – Kuala Lumpur Highway approximately 60 kms. The work included overall supervision of the design activities, technical issues, presentation to client on different recommended strengthening designs, specifications, BOQ and preparation of technical reports and tender documents - Malaysia.

- Federal Highway Route 2 (90 lane km): Pavement evaluation, materials investigation, strengthening designs and cost analysis, for different packages - Malaysia.
- Project Manager for Audit/Review of pavement design for East Coast Expressway. The work included, review of information, traffic analysis and pavement design using different techniques i.e. JKR, AASHTO etc and report writing - Malaysia.
- Project Manager for research work for High Performance Asphalt surfacing in Malaysia, work included literature review (Porous Asphalt, HMA, Stone Mastic Asphalt, Polymer Modified Binders), laboratory tests (Bitumen testing, aggregate testing) and performance testing (Such as ITFT, ITSM, RLAT) and reporting - Malaysia.
- Project Manager for Aviation Fibreturf Trial at Changi International Airport. The work included overall supervision of site works, testing, site visits, report writing and technical and financial issues - Singapore.
- As a member of design team, involved in the pavement evaluation using HWD testing on Hong Kong International Airport. Also responsible for the HWD back-analysis, interpretation and analysis of results, computation of ACN/PCN and report writing - Hong Kong.
- As a member of design team, involved in the design of Aircraft Hanger at KLIA, Kuala Lumpur. The works included design of the hanger floor, co-ordination with the client on technical and commercial issues - Malaysia.
- Project Manager for structural evaluation of two airports in Cambodia. The work included overall supervision of site works, review of data, interpretation of results, liaison with client on technical and financial issues and report writing - Cambodia.
- As a member of design team, responsible for the pavement design of East, West Runways, Taxiways and Aprons for New Doha International Airport. The designs were carried out using FAA methods (LEDFAA). Also prepared specifications, Drawings and reports - Qatar.
- Carried out pavement design review for the Area A3 Development - Laemchabang Port, Thailand - Container yard and Access road, pavements - Thailand.
- Project manager for the rehabilitation of SPRINT Highway in Kuala Lumpur. The work included supervision of contractor, analysis of data, database for Sprint Highway according to TEAM (MHA Guidelines), report writing and liaison with client and contractor on technical and commercial issues - Malaysia.
- Project manager for the rehabilitation of Area 7 packages in UK. The work included analysis of data, back analysis and rehabilitation design using Department of Main Roads UK - UK.
- Project manager for the rehabilitation design of South Luzon Expressway in Philippines. The work included visual survey, HWD testing, destructive and non-destructive testing, and analysis of data, back analysis and rehabilitation designs - Philippines.

- As a member of design team, involved in the design of lead-in taxiway and two rapid exit taxiways at HKIA (Hong Kong International Airport). The work included pavement design, geotechnical issues, review of specifications and report writing – Hong Kong.
- As a pavement specialist, visited Sohar Port Construction site. The work included site visits, recommendation in order to reduce the overall pavement, supervise construction activities and report writing - Oman.
- As a design team member, provided technical advice on the pavement designs for KICT (Karachi International Container Terminal) port. The work included review of pavement design for green and brown sites, review of specifications and liaison with client on technical issues – Pakistan.
- Project Manager for Peer Review of Pavement Design for Dubai International Airport. The work included review of the flexible pavement design, material specifications and report writing. Client: Department of Civil Aviation – Dubai
- Project Manager for Hazira Port Project in India. The work included pavement design for container yard areas and access roads according to British Port Authority Pavement Design Manual. Client: Port Singapore Authority.
- Project Manager for the Evaluation and Rehabilitation designs of the pavements for Brunei International Airport. The work included PCI survey, skid resistance survey, profile survey, HWD testing, trial pits, DCP, boreholes, laboratory testing, interpretation of data, ACN/PCN analysis, strengthening designs, tender documents and reporting. Presentations to DCA and Minister of Communications, Brunei. Client: Department of Civil Aviation – Brunei
- Project manager for the inspection of 120Kms road for Nam Theun 2 Hydroelectric project in Laos. The work included review of road designs, slope stability and specifications and construction. Client: Government of Lao – Laos
- Project manager for the pavement condition assessment surveys for East coast expressway and KL – Karak Highway. Client: MTD Prime
- Project manager for the review of pavement designs for Saigon premier port terminal in Vietnam. Client: TOA Corporation – Japan
- Project manager for the evaluation of pavements and ACN/PCN for Hong Kong International Airport. The work included HWD testing, Interpretation of data, ACN/PCN analysis and reporting. Client: Airport Authority Hong Kong.
- Bid manager for Pavement Management System project in Brunei for 2700Kms roads. The work included preparation of technical and financial proposals, costing, risk assessment, contract review, liaison with client and local partners and report writing.
- Bid manager for D& B contract for Brunei International Airport. The works included costing, risk assessment, internal tender board, contract review, JV contract, sub-consultancy agreements, technical and financial proposal.

- Project manager for pavement condition assessment of LDP highway. Approximately 200 Lane Kms. The work included data collection and analysis of results using HDM4. Different options using HDM 4 and rolling works programme.
- Project Manager for the Evaluation of pavements at Hong Kong International Airport. The work included overall project management, mobilization of the resources, HWD testing, traffic studies, PCN/ACN analysis and report writing.

Nov 1999 to Oct 2003

**NES
PAK**

**Senior Engineer
National Engineering Services (Pvt.) Limited - OMAN**

Activities

- Project Engineer for rehabilitation design of M9 Motorway (Karachi to Hyderabad), which included detailed design, alignment design non-destructive testing, BOQ and tender documents.
- As a member of design team, involved in alignment study, traffic surveys, geotechnical investigation, pavement design and tender documents for N5 – National Highway from Rahim Yar Khan to TMP Section, approximately 90kms. (Client: National Highway Authority)
- Project Manager for the 10 residential houses in OMAN. The works included the structural design of the footing, earth works, beam design and slabs. Prepared tender documents, BOQ frame works and bar bending schedule for the construction works. The works associated with the residential dwelling such as water, sewerage, footpaths, gates levels were also included.
- Project Manager for Rehabilitation design of Nizwa – Thumrait road (15 Km) in Oman. The responsibilities involves mobilization of staff for visual condition survey, destructive testing along the alignment and project management. The design report includes pavement investigation and design, rehabilitation using world model HDM-4 and preparation of tender documents (Client: Ministry of Transport and Communications, Sultanate of Oman).
- Prepared Technical and financial proposal for Government of Pakistan for Comparative study between Flexible and Rigid Pavements.
- Farm to Market Roads in Pakistan – Funded by Asian Development Bank.
- Deputy Project Manager for Batinah Highway Rehabilitation Project (253 Km Long road in Sultanate of Oman. The work included mobilization of staff, supervision of visual survey, structural survey, and serviceability survey and traffic studies. Preparation of inception report. Recommendation of different rehabilitation measures using HDM-4 software and recommending rolling works programme. Also prepared tender documents, BOQ and Engineer's Estimate (Client: Ministry of Transport and Communications, Sultanate of Oman).
- Resident Engineer for Duqm to Al Kihail road approximately 187 km long, responsibilities involved supervision of contractor work, all road activities, and problems at site and liaison with the client

on technical and financial matters. Client: Ministry of Transport and Communications, Sultanate of Oman. Project Cost US \$ 16.0 Millions.

- Resident / Civil Engineer for Lakbi – Sawagra Coastal Highway in Sultanate of Oman. The Work included the overall supervision of the contractor's work, dealing with site problems and recommendations according to Project specifications. Client: Ministry of Transport and Communications, Sultanate of Oman.
- Responsible for geotechnical investigations, pavement design, geometric design and report writing for the following projects in Sultanate of Oman:
 - Sohar - Buraimi Dualization Project
 - Marmul - Shaleem - Sawagrah Road Project
 - Muskin - Rustaq Road Project
 - Nizwa - Thumrait Rehabilitation Project
- Project Manager for Feasibility Study of Rustaq Muskin Road Project in Sultanate of Oman. The work included computation of VOC's and VTT and economic appraisal using HDM-4 computer software and different rehabilitation strategies over the analysis period, cash flow, and risk analysis. Client Islamic Development Bank
- Project Manager for Feasibility study of Nizwa -Thumrait Road Approx 200 km existing road. The task included the rehabilitation design and different rehabilitation design for the design period. The economic appraisal using HDM4 computer model. Client Islamic Development Bank
- As a member of design team carried out rehabilitation design of Kabul, Jalalabad – Thorkham Highway in Afghanistan, approximately 225 km. The work included condition survey of road, supervision of geotechnical investigations and rehabilitation design based on AASHTO and Road Note approaches.(Ministry of Public Works, Kabul).
- Assisted Engineers of DGR (Directorate General of Roads) Sultanate of Oman in establishing PMS, which included the network survey of roads, inventory and establishing Road network database for Works programme. Also carried out Calibration 1 and 2 of HDM-4 for Oman Network.
- Designed rigid pavement for the bus depot in Faisalabad, Pakistan. The work included design of rigid pavement considering empirical and mechanistic design methods.
- Responsible for the rehabilitation design of existing carriageway from Rahim Yar Khan to TMP approximately 18 kms. The work included geotechnical investigations by digging test pits, visual condition survey, traffic studies and review and analysis of FVD data. The deflections bowl was analyzed with MODULUS to compute back-calculated Moduli of different layers. The design was recommended on the basis of laboratory and site investigations. Client: National Highway Authority, Islamabad

Mar 1996 to Oct 1999



Senior Engineer

Pavement Management Services, Sydney, Australia (Now FUGRO-PMS)

Activities

- Carried out Flexible and Rigid pavement designs for major roads using AUSTROADS guidelines.
- Performed overlay and reconstruction design for Cook's Highway in Cairns approx. 3.6 Km that included mechanistic design using CIRCLY. The whole of life costing of different designs was carried out and most feasible design was recommended (Client, Queensland Transport).
- Performed Falling weight deflectometer testing in Campbell town for structural response of pavement and design overlays by using ELMOD (Client, Campbell town City Council).
- Designed Flexible and Rigid pavement of Lyon Park Road, a new route from Epping road to industrial zone, which also included whole of life costing of different designs (Client, Ryde City Council).
- As Project Engineer performed pavement condition visual surveys FWD testing for Leihhardt city council which included identification of different distresses in the pavement (Approx 80 Lane Kms).
- Carried out visual survey for Ryde city council (Approx. 116 Lane Kms)
- Carried out structural response of pavement using FWD for Ryde and Liverpool City Councils and uploading data into SMEC PMS System.
- Prepared technical report for Parkes Way, Canberra which included review of design and back calculation of moduli from ELMOD & EFROMD2 (Client, HTL - Reinhold).
- Prepared technical report for Federal Highway, Canberra, which included different rehabilitation designs (Client, R. D Gossip).
- Responsible for Annual Pavement Management report 1996-97 for Ryde City Council, which included data collection, uploading into PMS, ideal strategies, budgeted strategies, future works program and AAS27 report.
- Worked as Project Engineer for data collection and uploading the data into SMEC PMS for Gold Coast City Council which included collection of different pavement distresses and asset items for approx. 8000 lane kms in Gold Coast area. Also responsible for cost effective operation of the Project.
- Project Engineer for network testing of Campbelltown City Council which included scheduling of the Project using WINPROJECT, Processing of all data i.e. visual survey, 3 Laser profilometer and falling weight deflectometer using Microsoft Access and Excel Spreadsheet. Also responsible for the completion of the Project within time limit.
- Responsible for planning of the Projects using Visual/Maintenance Management System.
- Prepared a technical report for Newcastle City Council, which included Heavy weight deflectometer testing, and computation of CBR from Load - Deflection Bowl.
- Prepared a technical report for Transport and Urban Planning Pty. Ltd., which included heavy weight deflectometer testing, traffic calculations and overlay thicknesses. The design report also

- included whole of life costing and contribution rates computed on the basis of quarry trucks. Client, Transport and Urban Planning.
- Prepared a tender document for Department of Transport, South Australia that included visual collection of road network approximately 12,500 lane Kms. The tender document included the data collection methodology, mobilization of crews and costing of the Project.
 - Prepared a tender document for Callundra City Council, which included data collection for SMEC system in Callundra.
 - Project Engineer for visual data collection of performance specified maintenance contract (PSMC) of Hornby - Warringah region in Sydney. Client: Roads and Traffic Authority (RTA), Sydney.
 - Responsible for preparing a technical report for Olympic Co-ordination Authority which included visual/video survey, serviceability and structural survey of the roads in Homebush area (Olympic Village). The design report included overlay thicknesses and overall condition of the road network.
 - Project Engineer for visual survey of RTA Hornsby Warringah Network approx 1800 lane kms in Sydney. The survey includes overall management of visual crews, technical issues and database management.
 - Prepared design report for Wall Park Avenue which includes structural testing using falling weight deflectometer, remaining life assessment and different rehabilitation based on Austroads Design Guide using CIRCLY. The traffic counts were carried out using Truvelo TDL-500 equipment to estimate the percentage of commercial vehicles.
 - Incharge for traffic data collection and reporting for RTA PSMC maintenance contract, Hornsby - Warringah network.
 - Project Engineer for the Pavement Condition Survey of Royal Botanic Gardens. The survey included visual and structural survey using video logging and Heavy weight Deflectometer. The report included current condition of the network and five years future maintenance strategies using PARMMS based on HDM 4 World Bank Model.
 - Prepared procedures and work instructions for traffic classification, Structural testing using Falling Weight Deflectometer and Skid Resistance using Road Analyzer Recorder. The procedures were written according to the NATA (National Association of Testing Authority, Australia).
 - Supervised Visual and Structural Testing for bus depots in Sydney on Concrete pavements and prepared report including rehabilitation techniques according to World Bank HDM IV model.
 - Project Manager for Salisbury network Survey that included mobilization of crew, quality plans and Project Management.
 - Project Manager for City of Marion network survey - Day to day running of the Project, technical issues and liaison with the client on all aspects of the Project including supply of Database in PARMMS 4 format.
 - Project Manager for City of Adelaide network survey, which includes day-to-day running of Project and liaison with the client on all aspects of Project.
 - Project Manager for RTA Asset Survey 1999 which includes hiring of crew members, running of the Project, liaison with the client on

- all aspects of the Project and provide data into suitable format using relational database – Access
- As Operations Manager was responsible for the day to day running of asset monitoring division.

Jan 1996 to Mar 1996

Civil Engineer, Parramatta City Council, Parramatta-Australia

Activities

- Carried out road and drainage inventory survey for Council's Asset Management System. Assessing the condition of road pavement, Kerb & gutter, footpath and nature strip. Drainage pits and storm water pipelines conditions so as to put these into the computerised database.
- Prepared tender and contract documents for road construction works
- Prepared database for HDM III.

1992 to 1995

Senior Engineer

National Engineering Services Pakistan (Pvt.) Ltd.

Activities

- Geometric design of urban and rural roads using AASHTO guidelines.
- Supervised 150Km long Highway as Assistant Resident Engineer, which includes overall management of the project, monthly progress reports, dealing with technical issues, progress monitoring, attending meetings and approval of Interim payment certificates.
- Prepared project control estimates, project monitoring, project budgets and project management for major projects.
- Supervised drilling work at bridge sites and geotechnical investigations along the proposed alignment of motorway. Also supervised axle-load study on motorway project.
- Designed deep foundations of bridges, slope stability of embankments, settlement analysis, stabilisation of subbase and report writing for the Pakistan Motorway Project, in association with the French company (BCEOM).

Achievements

- Successful completion of motorway designs (\$320 Million) in association with an international firm (BCEOM) French Consultant.
- Carried out vertical, horizontal alignment, super elevation design using AASHTO guide lines
- Developed a program in spreadsheet and Basic for allowable pile capacities and soil classification.
- Designed Flexible Pavements for various projects which included AASHTO, Road Note 31 and Shell approaches. Also performed mechanistic analysis using ELSYM5, Kenlayer, Chevron X and Dama programs.
- Established the policy and objectives needed for the development of PMS

1991 to 1992 Tutor
Engineering

University of Wollongong, Australia- (Department of Civil

Activities

- Tutored undergraduate students (70 Nos) in civil engineering courses in soil mechanics and surveying subjects.
- Assisted course adviser in preparing weekly assignments, class tests and final examination.
- Supervised laboratory experiments - Triaxial Test, Unconfined Compression Test, Consolidation Test, Proctor Compaction Test, Shear Box Test and Permeability Test.
- Organized field trips to BHP steel industry and sewerage Plant at Richmond, Sydney.

1990 to 1991

Civil Engineer, Turpak International (Pvt.) Limited, Pakistan

Activities

- Prepared technical and financial proposals for various infrastructure projects.
- Member of design team for carrying out foundation and structural design of a Pickling Plant in Sultanate of Oman.
- Provided technical assistance and co-ordination with the design team and senior administration.

Achievements

- Technical solution for problems associated with the designs.
- Completion of project within time limit and with profit of over 10%.

Farhan Munawar

Mobile: +92-300-8474740

farhanmunawar@lumsalumni.pk

23rd February, 2019

General Manager HR & Admin

Punjab Industrial Estates Development and Management Company

Lahore

Dear Sir/Madam

I wish to apply for vacancy of "General Manager Admin & HR at PIEDMC" advertised in leading newspapers.

I have more than 15 years of work experience with organizations in Turkey, Indonesia, UAE and Pakistan after completing my Associate Degree from Bogazici University, Istanbul, Turkey. From 2007-2011, I have completed my Bachelors in Business Administration (Hons) from FAST-NU. Additionally, I have Masters in Business Administration (Executive) from SDSB-LUMS. I have served two section 42 companies under GoPb as Manager Operations and General Manager Operations (HR) (for more than 4 years). My last assignment was with Descor Engineering Limited as Head BD - Infrastructure Division. During the last one year I am part of an entrepreneurship/partnership venture.

Please allow me to highlight my professional experiences pertinent to subject position:

1. HR Operations and Facilities Maintenance:

- Manager Operations Central Dubai Area Berkeley Services (Facilities Management) U.A.E.
- General Manager Operations(HR) Section-42 Government of Punjab, managed four direct departmental reports and staff of more than 200 employees

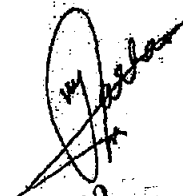
2. HR/Administration, Procurement, Security and Transport:

- Worked as Manager Operations LTC-GoPb, supervised 8 transport companies under the umbrella of Government of Punjab to manage operations
- Head HR & Admin Albayrak Holding - Metro Bus Project Lahore

3. Experience of working in Turkey, Indonesia, U.A.E and Pakistan with multicultural teams and in multilingual environment.

4. Significant experience in HR, Administration/Procurement and Financial Management

5. Proficient management and preparation of correspondence and communications


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6. *Efficient report writing and presentation skills as significant part of BBA(Hons) and LUMS MBA(Executive) degree programs*
7. *Significant coursework in Finance and HR , graduate cum laude and maintained GPA of 3.63 in both FAST and LUMS*
8. *Proficiency in Turkish Language*

I have attached my CV for further details. I believe I can make a positive contribution to this position by adding value based on my experience of HR/Admin/Operations in corporate sector and strong academic back ground. I would welcome the opportunity to meet with you for an in-depth discussion. I am available for an interview at your earliest convenience, please contact me via phone or email to arrange a time and date for us to meet.

Thank you for your time and consideration and I look forward to speaking with you soon.

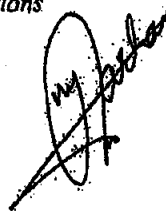
Sincerely

Farhan Munawar



References:

1. **Dr. Ahtasham-ul-Haq**
Managing Director
LDCMMC- Government of Punjab- Section-42
0321-8404442
Direct reporting to MD as GM Operations
2. **Mr. Omer Pirzada**
Chief Operating Officer
LTC- Government of Punjab- Section-42
0300-4003969
Direct reporting to COO as Manager Operations

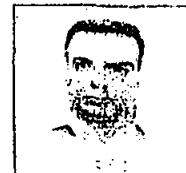




Suleman Dawood
SCHOOL OF BUSINESS
ENIBA 2013

FARHAN MUNAWAR

11-N DHA Phase 8, Lahore, Pakistan
Mobile: +92-300-8474740
E-mail: farhanmunawar@lumsalumni.pk



CAREER PROFILE

More than 15 years of diversified and successful track record in managing HR/Admin/Operations and strategic business development with experience in managing cross-cultural teams and distribution networks.

EDUCATION

Lahore University of Management Sciences [LUMS] Master of Business Administration (Executive)-HR/Operations	2013
National University of Computers and Emerging Sciences [FAST-NU] Bachelor of Business Administration (Hons) (HR/Finance) Cum Laude	2011
Bogazici University, Istanbul, Turkey Associate of Science (Department of Chemical Engineering)	1999

WORK EXPERIENCE

Descon Engineering Limited **Oct 17 – Dec 17**

Head Business Development-Infrastructure Division

Descon Engineering Limited is an integrated engineering services and manufacturing company operating in Pakistan and the Middle East. It is in the business of delivering client-specific solutions for projects related to Energy, Infrastructure and Process Industry. The integrated package of services encompasses engineering, procurement, manufacturing, construction, commissioning and maintenance.

Key Responsibilities:

- Liaison with PMO's of public sector clients (Wapda, Irrigation Department, SEDA, PEDQ, CAA etc.) for update on current infrastructure projects like dams, canals, barrages etc.
- Follow up of upcoming public or private sector infrastructure projects and preparation of competitive bids for infrastructure projects in consultation with concerned department teams
- Maintain business relationship with international and local vendors and local representatives of multinationals for potential joint ventures

Lahore Division Cattle Market Management Company-Government of Punjab-Pakistan **Aug 15 – Sept 17**

General Manager Operations (HR)

LDCMMC is owned by Government of Punjab, registered under section 42 of Companies Ordinance 1984. It has the mandate of establishing, operating and regulating markets in Lahore Division which include Lahore, Sheikhupura, Kasur, Pattoki and Nankana.

Key Responsibilities:

- Establishing and implementing of objectives and SOP's in line with HR and Operations manuals
- Implementing HR policies along with selection, training and performance appraisal
- Managing outsourced services contracts like transport/logistics, parking lots, maintenance of facilities and assets
- Preparing and implementing operational and procurement plan in accordance with approved annual budget
- Managing the correspondence for support needed from government agencies like DCO's Office and City Traffic Police
- Presenting reports and projects output/results to BOD and related government officers for policy formation
- Ensuring that company goals are met in a timely fashion by the efficient and effective management of personnel and resources
- Monitoring complaint cell and grievance handling mechanisms

Lahore Transport Company (LTC)-Government of Punjab-Lahore-Pakistan

Feb 14 – Aug 15

Manager Operations (HOV)

LTC is owned by Government of Punjab, registered under section 42 of Companies Ordinance 1984. It has the mandate of deployment and regulation of urban transport (Buses, Taxis, Mini-Vans, and Rent-a-Car) services in

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Lahore. LTC awards urban/sub-urban bus routes and permits to private companies through exclusive route franchise awards under Public Private Partnership framework backed by concession agreements.

Key Responsibilities:

- Trained drivers for using Onboard Information Units and E-Ticketing devices
- Formulated operational plans and coordinated with local/foreign operators/government departments for implementation of those plans
- Conducted inspections on various urban routes to ensure operational compliance of parameters and plans issued by planning department
- Managed the correspondence for support needed by foreign operators from government agencies like Transport Department, DCO's Office and City Traffic Police.
- Presented reports and projects output/results to BOD and related government officers for policy formation
- Participated in various social ventures/programs by Government of Punjab e.g. dedicated arrangements for disabled persons in all public facilities
- Social enterprise activities: monitored the performance of student discount cards and free old age citizen travel cards

Albayrak Holding/ Platform Turkey (Pakistan Branch) (Metro Bus/Urban Bus Routes)

Oct 12- Nov 13

Head of Department HR & Admin

Organization is responsible for procurement, operations and maintenance of articulated Metro buses for the much acclaimed Mass Rapid Transit system in Lahore. Platform also operates 172 buses at different urban and sub-urban routes in Lahore region under contracts with Lahore Transport Company.

Key Responsibilities:

- Established HR department with 12 HR personnel responsible for more than 800 employees
- Implemented HR policies consistent with those of Albayrak Holding Turkey
- 90% reduction in penalties which are imposed by Punjab Metro Bus Authority owing to non-compliance in HR related issues
- Conducted at least 8 goal oriented trainings for different cadres which significantly improved KPI's
- Managed legal and compliance issues like EOI and social security and ensured timely sharing of data required by different government departments
- Streamlined the process/flow of information among different subsidiaries of Albayrak Holding
- Deployed a system of employee recognition based on monthly performance on assigned target

Berkeley Services Group U.A.E (Facilities/Property Management Services)

Jan 06-Feb 07

Operations Manager-Central Dubai Area

The group employing over 2600 staff is among the leading service providers in real estate with clients all over UAE. The services include maintenance, landscaping, security and cleaning.

Key Responsibilities:

- Managed contracts/operations of security/cleaning division including procurement/ inventory management
- Supervised the allocation of 360 employees, equipments and resources for different projects
- Prepared, bid, negotiated and won contracts with multinational facilities e.g. Citibank, Emirates/DNATA, HSBC and various shopping malls
- Evaluated and appraised the performance of 3rd party logistic operators

PT. Farah Karpindo Lestari, Jakarta, Indonesia (Textile/Home décor/Furniture)

Dec 02-Oct 05

Assistant Manager Operations-Supply Chain

The organization is involved in import and export of home textiles, carpets, furniture items and other home décor products. It has exclusive distribution rights for markets in Indonesia, Malaysia and Australia.

Moreover, the organization operates a chain of retail showrooms across Indonesia.

Key Responsibilities:

- Managed demand and supply for all retail outlets across Indonesia
- Negotiated with and procured from suppliers in Turkey, U.A.E and E.U
- Trained 80+ sales staff and outlet managers
- Successfully managed the expansion from 10 to 16 outlets within 2 years
- Introduced new products in textile section into Indonesian and Malaysian markets benefiting the organization by 15% increase in sales and increased market penetration

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Atlas Carpet and Weaving Mills, Istanbul, Turkey

Aug 99-Oct 02

Business Development Executive

The organization was ranked among the top weaving mills in Turkey in terms of capacity and exports.

Key Responsibilities:

- Participated in exhibitions for tapping customers across the globe and developed new market in Indonesia
- Coordinated and liaised with buyers and production managers for order preparation and shipments
- Decreased delivery time by 10% for exports/outbound shipments to Malaysia, Indonesia and Australia

MDM Tekstil Dis Ticaret LTD. STI, Istanbul, Turkey

Aug 93-Aug 97

Sales and Distribution Executive

The core operations of the company were import and distribution of textile products all over Turkey.

Key Responsibilities:

- Coordinated with international producers
- Managed the demand from local distributors

PROJECTS

Alternate Performance Appraisal for Pakistani Army (MBA-FYP)

- Proposed Management by Objectives (MBO's) approach for reduction in subjectivity in current Officers Evaluation Reports (OER's)

Evaluation of "Corporate Social Responsibility" in Pakistani Organizations (BBA-FYP)

- Compared awareness of "CSR" in local organizations and multinationals

ADDITIONAL SKILLS AND EXPERIENCE

- Excellent communication and presentation skills
- Strong analytical and problem solving skills
- Proficiency in speaking Turkish

HONOURS AND AWARDS

- Remained among top three participants in MBA(Exec) and member dean's list in BBA(Hons)
- Secured scholarships in secondary and higher secondary school board examination

TRAINING/CERTIFICATION

- Clean Development Mechanism (CDM) Assessment of PC-1 of Public Sector projects, Cabinet Secretariat, Climate Change Division, Government of Pakistan
- Capacity Building of Public Private Partnership (PPP) Nodes, Planning and Development Department, Government of Punjab
- PPRA Rules



UMAR SAEED



7-E, Phase 1, DHA,
Lahore, Pakistan
Cell: 92.345.4225565
Email: umarsaeeds@yahoo.com
D.O.B: 09/07/70

EDUCATION AND QUALIFICATION

Preston University - Karachi
E MBA in Project Management - 2001

N.W.F.P University of Engineering & Technology - Peshawar
B.Sc Civil Engg - 1992

ORACLE Corporation - USA
ORACLE Data Base Administrator

COURSES ATTENDED

Project Management - Lahore University of Management Sciences (LUMS)

Project Management Professional (PMP) Boot Camp - PMI Lahore Chapter

Primavera Project Planner P-3 - Pakistan Engineering Congress

AutoCAD 2006 - Pakistan Engineering Congress

MEMBERSHIPS

Pakistan Engineering Council	Member: Civil 15734
Pakistan Engineering Congress	Member: 4113
Institute of Engineers, Pakistan	Member: M-15875
Project Management Institute, USA:	Member: 1392390

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PROFESSIONAL EXPERIENCE

1. CONEX Pakistan (Pvt) Ltd - Lahore, Pakistan

a. General Manager Construction:

May 2012 to Date

(1 year 7 months) ✓

(1) Scope of Work:

- a. *Infrastructure development of DHA Phase VIII, Lahore that includes construction of roads, laying of water supply and sewerage network, construction of OHWT's and surface drainage system. (Financial layout of approx Rs 6.0 Billion)*

(2) Responsibilities:

- a) Responsible for Planning, organizing, coordinating and controlling the overall operational activities of the construction projects of the company.
- b) Responsible for ensuring that operational activities are carried out in accordance with laid down specifications and standards.
- c) Implement project work plans as appropriate to meet changing needs and requirements.
- d) Effectively involved in devising company's methodology and responsible for maintaining company's standards.
- e) Review budget estimates and cost tracking reports.
- f) Communicating with a range of people including the client, sub contractors, suppliers, public and work force.
- g) Supervising / implementing quality assurance procedure.
- h) To ensure project documents are complete, current, and maintained.
- i) To analyzes project profitability, revenue, margins, rates and utilization of resources.
- j) Check / Review deliverables completed before handing over to client.
- k) Liaise with client to resolve various issues pertaining to the drawings / site.

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- l) Conduct technical reviews to improve quality and to eradicate financial losses.
- m) Ensure judicious and stringent use of financial resources in line with the planned execution schedule so that project timelines are met within the budget.
- n) Facilitate project team by regularly providing technical support and conducting technical reviews.
- o) Oversee procurement of equipment, material demanded by the respective project managers and ensure timely initiation of the demand and subsequently inspection for quality and account for quantity of material / equipment supplied.

2. **Eden Housing Ltd** - Lahore, Pakistan

a. **Sr Project Manager:**

May 2009 to May 2012
(3 years)

(1) **Scope Of Work:**

a. Construction of 2000 houses of different sizes (2-1/2 to 12 Marla) including infrastructure development of Eden Garden & Eden Garden Extension. Site located at Ferozepur road (Financial layout of approx Rs 7.0 Billion)

b. Construction of Chairman's Residence at Thokhar Niaz Baig, Lahore. (Covered area - 60,000 sqft)

(2) **Responsibilities:**

- a) Responsible for successful completion of the project within the scheduled time and laid down budget.
- b) Negotiate and award contracts to various contractors on behalf of Eden Housing Ltd.
- c) Monitor all construction activities including construction of houses as well as infrastructure development.
- d) Conduct regular site visits and interact with contractors and supervisory engineering staff.

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- e) Oversee the performance of contractors and engineers through established progress measuring / monitoring systems.
- f) Review progress on project activities resource usage and cost incurred.
- g) Resolve project problems, conflicts, changes, & bottle necks that hinder project's progress.
- h) Collect verified information on work results of various activities performed by the construction team. Analyze the data with the baseline schedule to reflect the variance, change in sequence / methods etc.
- i) Preparation of weekly, monthly & three monthly look ahead schedule.
- j) Preparation of monthly, quarterly & six monthly material requirements.
- k) Coordination with the consultants for drawings & data regarding execution of works.
- l) Quality Assurance (Q/A) and Quality Control (Q/C).

3. Punjab Industrial Estates Development & Management Company -
Lahore, Pakistan

a. Manager Construction & In charge, Sundar Industrial Estate,

July 2008 to May 2009
(11 months)

- (1) Scope of Work: *Infrastructure Development of 1655 Acres of land to accommodate approx 650 Industrial units of different natures. Development included around 30 km RCC roads, 45 km of water supply network, 45 km of sewerage network, 3 km of force main, disposal station, overhead water tanks & landfill sites (Financial layout of approx Rs 6 Billion)*

(2) Responsibilities:

- a) Negotiate and award of contract to various contractors.

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- b) Monitoring all construction related activities.
- c) Liaison with the contractors & consultants to update information on project scope, schedule & changes.
- d) Regular visits of project site to review the progress of the project activities, resource usage & cost effects.
- e) Project progress reports and briefings.
- f) Checking Interim Payment Certificates (IPC's)
- g) Exchange of plans, BOQs, drawings & technical information with the contractors & consultants.
- h) Coordination meetings with the contractors & consultants.
- i) Site management including administration & security control.
- j) Quality Assurance (Q/A) & Quality Control (Q/C).

4. M/s Excelsior Engineering Associates – Lahore / Rawalpindi, Pakistan

a. Site Engr, Manager Construction, Director Operations:

January 1995 to June 2008
(13 years 6 months)

- (1) Scope of Work: Construction projects of buildings, roads, external services with different public & private sectors incl. MES (Army), NHA, Local Govt Rawalpindi & DHA etc.
(Financial layout of approx Rs 6 Billion)

(2) Responsibilities:

- a) Preparation of tender bids / Negotiation of contract agreement with various clients.
- b) Monitoring of all construction related activities including site supervision.
- c) Liaison with client and consultant for BOQ's, drawings & technical information.
- d) Manpower, material resources & Engg plant / machinery management.
- e) Quality Assurance (Q/A) and Quality Control (Q/C).
- f) Preparation of Interim Payment Certificates (IPC's).

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- g) Interaction with parent deptts for payments, etc

5. M/s Universal Corporation (Pvt) Ltd – Rawalpindi, Pakistan

a. Site Engineer.

July 1992 to December 1994
(2 year 6 months) ✓

- (1) Scope of Work: Construction of 6 storey PTCL Head Quarter Building.
Islamabad.
(Financial layout of approx Rs 80 Million)

(2) Responsibilities:

- a) Execution of works as per construction drawings.
- b) Preparation of Bar Bending Schedule
- c) Preparation of IPCs
- d) Quality Control (Q/C)
- e) Interaction with consultant and client.

6. STRONG POINTS.

- a) Graduate Engineer
- b) MBA in Project management
- c) More than 21 years experience in construction of roads, buildings & external services with various deptts.
- d) Preparation of Bill of Quantities, Vetting & Rate Analysis.
- e) Preparation of Project planning & Quality Assurance Processes.
- f) Planning, monitoring & evaluation of project through Primavera Project Planner.
- g) Specialization in development of Housing societies.

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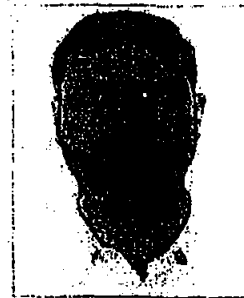
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Engr. Muneeb Ahmad Dar

Mobile: +92-3339292780, +92-3238425836

Email: mustajab1996@hotmail.com

LinkedIn Profile: <https://www.linkedin.com/in/muneeb-ahmad-dar-27a51845/>



ACHIEVEMENTS & OBJECTIVE

I have been involved in EPC projects throughout my career for construction, erection, installation, testing & commissioning of 220kV & 132kV substations switchyard, Control Buildings and 500kV & 220kV Transmission lines. I manage team of Engineers, HSE officers, QA/QCs with strict adherence to time schedule, strict compliance of HSE & QA/QC requirements, reporting to Project Manager, completion of project within allocated resources, preparation of project budget, preparation of project plan including shutdown plan, selection of sub-contractors and preparation of Change Orders. I desire to use my skills and experience of managing & handling construction projects for HV Grid stations, Control Buildings and transmission lines as per the satisfaction of client and in the interest of Employer Company. I am sure to carry out any responsibility given to me in the field of my experience with the best of my efforts, Insha'Allah.

WORK EXPERIENCE

December 2018 to April 2019 DESCON Engineering Ltd, Pakistan. 25.40

Position Held: Manager Electrical 0.5

PROJECTS HANDLED: Revamp and Turn Around of PARCO Oil Refinery, Pakistan.

Description: It is multi-Billion Rupees Project to revamp and turnaround of PARCO Oil Refinery for increasing the oil production.

Responsibilities:

- To manage the Electrical activities relating to the revamp & Turn Around work like installation of new switchgear panels, installation of new motors, cable laying for power supply for new and existing equipments, electrification of Control Building, etc.
- To manage Electrical Site Office staff including site engineers, planning engineers, Procurement engineers, supervisors.
- Reporting directly to Project Manager Revamp Project, DESCON and Project Manager, PARCO.

May 2017 to December 2018 BARQAAB Consulting Services (Pvt.) Ltd, Pakistan. 1.7

Position Held: Construction Manager

PROJECTS HANDLED: Construction of Outdoor type 220/132kV Grid Station, Nowshera and 220kV Transmission Line.

Description: It is multi-million Dollar Project by NTDC with loan from Asian Development Bank. The main purpose of the construction of Grid station & Transmission Line is to provide stable power supply to Nowshera city.

Responsibilities:

- Supervision of civil works, installation, erection, testing & commissioning activities for substation and control building.
- Supervision of civil works, erection, stringing and testing of 220kV Transmission Line feeding for 220kV S/S Nowshera.
- To review the project schedule for substation, control building and transmission line with respective contractors and coordinate with NTDC to remove the bottlenecks for completing the project as per schedule and as per contract requirements.
- Reporting directly to Project Manager, BARQAAB Consulting Services and Executive Engineer, NTDC, Peshawar.

July 2013 – July 2015 and February 2016 – March 2017 *1.2* AL Giliaz Contracting Company, Saudi Arabia.

Position Held:

1.2
Construction Manager

PROJECTS HANDLED:

Upgrading of Power Systems, SAUDI ARAMCO Southern Area Oil Operations.

Description:

It is multi million Riyal Project with thirty six locations for upgrading the existing 115kV substations and Transmission Lines alongwith construction and electrification of control buildings. The projects sites are scattered all over southern area of Saudi ARAMCO oil operations and is under direct supervision of Saudi ARAMCO. The purpose of project is to provide reliable power supply to Saudi ARAMCO oil facilities.

Responsibilities:

- Upgrading of 115kV outdoor substations switch yards and construction of new control buildings.
- To manage a staff of 250-300 persons including site managers, site engineers, safety officers, QA/QC supervisors/inspectors, planning engineers, administrative staff.
- To prepare Yearly budget in coordination with Project Director and Project Control Manager.
- To properly manage yearly budget allocated in the area of jurisdiction.
- To make plan for the project in coordination with Planning Engineer to complete the project up to the satisfaction of the client within stipulated time and allocated budget.
- To make shutdown plan in coordination with planning engineers.
- To ensure timely arrival of equipment/material to sites to avoid delay in construction activities.
- Reporting directly to Project Director and Saudi ARAMCO Project Management Team regarding the daily site activities, achievements, obstructions, plans, etc.
- Liaison with Saudi ARAMCO for approval of Energization Packages for substations.
- To prepare subcontracting plan and Liaison with Saudi ARAMCO for finalization of the subcontractors. Progress review and shut down plan review meetings with client (Saudi ARAMCO).

October 2015 to January 2016 *0.1* PAK THERM (Pvt.) Ltd.

Position Held:

Electrical Manager

Responsibilities:

- To manage a team of Engineers and Technicians for manufacturing the Distribution and Power Transformers within stipulated time period and budget.

M. H. Khan

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March 2002 – May 2013

Dar Al Riyadh Engineering Consultants, Saudi Arabia.
Working for Saudi Electricity Company, Abha, Saudi Arabia

Projects Handled

Substations (132/13.8kV, 132/33kV, 132/33/13.8kV). Outdoor and GIS type.

Position Held:

Project Engineer

Description:

The Power Projects under the Saudi Electricity Company were designed to provide reliable power supply to public and industrial consumers. These Projects include the upgrading of existing substations and construction of new substations and Transmission Lines.

Responsibilities:

- Design Drawings review for 132kV substations switchyards and control building.
- Supervision of construction, installation, erection, testing & commissioning activities for 132kV substations and control building.
- Represent Saudi Electricity Company at all levels of project implementation.
- Provide all technical assistance to Saudi Electricity Company from design review stage of project to Final Acceptance Certificate of the project.
- To attend Project Kick off Meetings, design review meetings, progress review meetings and overall project progress review meetings.
- Reporting directly to Divisional Manager, Saudi Electricity Company.
- To coordinate between various SEC departments for better and in time completion of the Projects in special coordination with SEC Maintenance Department.
- To arrange outages for the contractor in different phases of the project in coordination with concerned SEC departments.
- To attend and inspect the completion of punch list items and warranty period defects after issuance of Technical Clearance Certificate & Provisional Acceptance Certificate of the project.
- To inspect the project spare parts, special tools and dismantled material, if any, in coordination with contractor and SEC Assets Maintenance Department and handing over the spare parts and dismantled material to SEC warehouse in coordination with contractor, SEC-AMD and material department.
- To participate in final inspection of the s/s with all concerned SEC departments before issuance of the Final Acceptance Certificate for the project to the contractor.

May 1991 – Feb 2002

Pakistan Water and Power Development Authority (WAPDA)

Assistant Director Design (Transmission & Grids)

Sub Divisional Engineer-Extra High Voltage Department

Description:

The Power Projects under Pakistan WAPDA were designed to provide reliable power supply to public and industrial consumers. These Projects include the upgrading of existing substations and construction of new substations and Transmission Lines.

Responsibilities:

- Preparation of complete Design Drawings for 132kV outdoor substations switchyards and control building.
- Calculations for Electrical Equipments/ material required for the construction of 132kV substations and control building electrification.
- Supervision of construction of 132kV Grid stations to check that work is carried out as per WAPDA approved drawings.

- Construction, erection, installation, testing & commissioning of 220kV Islamabad-Peshawar Road substation along with construction of Control building.
- Supervision of civil works, erection, stringing and testing of 220kV Transmission Line feeding for 220kV S/S Islamabad-Peshawar Road.
- Supervision of civil works, erection, stringing and testing of 500kV Transmission Line (In-Out) for Ghazi-Barotha Hydel Power Project.
- Incharge 500kV stores, Lawrencepur which was used to store and issue the material for 500kV Transmission Lines.

Aug 1989 - March 1991

M/S Butt Brothers and Company, Lahore, Pakistan

Maintenance Engineer

Responsibilities:

Worked as Maintenance Engineer for maintenance of Electro Medical Equipments.

EDUCATION

June 1989

Electrical Engineering, (B. Sc.)
University of Engineering and Technology, Lahore,
Pakistan.

OTHER CERTIFICATES/TRAININGS

Management Course
Technical Training Course
Safety Orientation Certificate
H2S Safety Awareness Course & SCBA
Training

WAPDA Academy, Tarbela, Pakistan
WAPDA Engineering Academy, Faisalabad, Pakistan.
Saudi ARAMCO, Saudi Arabia.
Gulf Wells Co. for Oil & Gas Services, Saudi Arabia.

IT SKILLS

Well versed in MS office, Outlook.

MEMBERSHIPS

Professional Engineer
Member
Member

Pakistan Engineering Council, Pakistan.
Institute of Engineers, Pakistan.
Saudi Council of Engineers,
Saudi Arabia.

PERSONAL INFORMATIONS

Gender: Male
DOB: 30-01-1965
Marital status: Married (wife + 2 children)
Religion: Islam
Residence: Lahore, Pakistan.

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CURRICULUM VITAE



Khizar Hayat

H#26, Abubakar Block, Gulshan-e-Madina, Sargodha road, Faisalabad.

E-mail: khizar63@yahoo.com

Phone# 041- 8811786 Mobile# 03006623667

D.O.B: 12th January 1963.

Objective:

To attain a position in an organization offering challenge and opportunity to reach its highest echelon by contribution to its mission, with over twenty two years of experience in electrical and telecommunication industry.

Summary of Experience:

Experienced on various managerial/monitoring/coordinating and executing positions in leading telecommunication and electrical companies i.e. PTCL, Nespak respectively, hands on construction experience of high voltage transmission lines, development projects of PVC duct, optical fiber and access network in addition to operation & maintenance and buildings construction including land acquisition for huge & normal buildings scattered in far flung areas, provision of commercial power connections from WAPDA and standby generator having calculated the electrical load. Experienced in construction of 500 KV transmission line while working as Engineer in Nespak. Experienced in targeted projects completion through contractors as well as consultants subject to project volume, by using proactive approach in timely resolution of issues, keeping close coordination with relevant teams and agencies like TMA, Road Department, Development Authorities, Sui Gas, PEPCO, Railway, NLC/FWO. Dynamically experienced in installation of electrical, telecommunication and building projects with advanced technical knowledge to make valuable contribution towards success of company and assist others in positive development growth for timely completion of projects by optimal utilization of resources. A proactive project manager in timely completion of projects by close coordination with other agencies/departments achieving good quality and strong work ethic and ability to motivate staff to excellence. Time to time deputed as coordinator on behalf of PTCL with District Government Faisalabad for re-location of PTCL existing


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CONSULTANTS

installations in road rehabilitation projects as well as in Lahore during 1997-98, attended daily meetings with different departments under the Chairmanship of, the then political secretary to Chief Minister Punjab.

Experienced in prequalification of consultant and contractor firms for designing and execution of development projects and procurement of allied items, preparation of tender documents including contractual terms and conditions, items specifications with BOQ, projects cost estimation, process of tendering, rates analysis comparable with market, their approvals, work awards receipts of materials and entrance/distribution in inventory stock registers worth millions.

Extra ordinary experienced in selling of new telephone connections and value added services and always kept the customers satisfied by properly handling of their complaints, reduced the network faults by administering the techniques of corrective especially preventive maintenance. Experienced in dealing with Parliamentarians regarding new telephone connection quota and installation of telephone exchanges approved in their constituencies. Knowledge/skill of MS office computer operating systems like word, excel, AutoCAD, power point, e-mailing etc. PTCL included in its highest rated employee's category as **KEY TALENT** while offering voluntarily separation scheme. Retired in April-08 by opting voluntarily separation scheme while working as Divisional Engineer(BPS-moved over 19) looking after as Director from time to time in Pakistan Telecommunication Company Ltd.

Positions held in various organizations:

1-Chief Technical Officer(JUNE-08 to Mar-10) in the company "NIAZ BUILDERS LAHORE" associated with telecom sector companies like **World Call, Wateen, Multinet**, executing their projects of Optical Fiber cable networks at Faisalabad and Lahore. Overall company management to control projects, financially and administratively worth Millions with sizeable savings in addition to clients satisfaction.

2-Divisional Engineer Development-1 PTCL Fsd (JAN-2000 to MAR-08)

Selection of sites as per specified criteria.

Acquisition of lands on selected sites.

Construction of **10 buildings** including its electrification with covered area about **1000 sq ft** each, scattered all over district Faisalabad for installation of exchanges after completion of tendering process.

Provision of WAPDA commercial power connections to new telephone exchanges scattered in various locations.

Handing over of completed buildings after making charge reports.

Planning of underground cable network of 65-K lines digital exchanges and 20-K lines **optical fiber** access network.

Preparation of estimates, pursuance for sanctions, funds allotment and store material purchase/allocation.

Collection of store materials for laying of network.


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Work award to the contractors after completion the tendering process.

Completion of cable network and its joint testing by quality assurance alongwith its handing over to operation wing.

Construction of corporate environment four-storey building with covered area about 45000 sft, two double storey Customer Service Centers each with covered area about 7000 sft and one medium type telephone exchange building with covered area about 4500 sft including electrification with essential protection, fire/smoke alarm, telecommunication / data, air-conditioning, standby generator, lift systems along with electrical load calculation for provision of electrical power supply & capacity of standby generator to cope with essential load requirement provisions through following procedures.

- a) Finalization of building design after having competition among renowned prequalified consultants.
- b) Preparation of tender documents, working drawings and BOQ etc.
- c) Process of tendering and its work award to the lowest bidder.
- d) Completion of building by preparation its completion schedule.

3-Divisional Engineer Phones Sargodha Road PTCL Faisalabad (JUL-1998 to JAN-2000)

Managed Installation of 5-K new telephones connections.

Corrective and preventive maintenance of cable network of 20-K lines.

4-Divisional Engineer Development P-III Lahore (JUN-1997 to JUL-1998)

Planning of underground cable network of 10-K lines digital exchanges.

Preparation of estimates, pursuance for sanctions, funds allotment and store material allocations.

Collection of store materials for laying of network.

Work award to the contractors after completion the tendering process.

Completion of cable network and its joint testing by quality assurance alongwith its handing over to operation wing.

5-Divisional Engineer Phones Peoples Colony PTCL Faisalabad (NOV-1992 to JUN-1997)

Managed Installation of 20-K new telephones connections.

Corrective and preventive maintenance of cable network of 20-K lines.

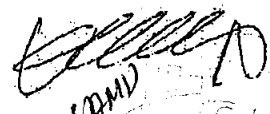
6-Assistant Divisional Engineer (BPS-17) in Pakistan Telecommunication Company Ltd 1988-92.

Operation and maintenance of 10-k lines EWSD exchange.

Laid underground cable duct system.

Laid cable network. Acquisition of lands for construction of buildings.

7-Junior Engineer in NESPAK Pvt Ltd 1987-88.


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Supervision for construction of 500kv WAPDA transmission line as per designed specifications in the vicinity of Sahiwal and Sharaqpur.

Education:

B.Sc. Electrical (Power) Engineering(1987)with **HONOURS** securing 86% marks and **FIRST** position in all disciplines of UET Taxila.

F.Sc. Pre-Engineering (1981) securing 70% marks from Govt.College Faisalabad.

SSC. Science (1978) securing 72% marks and **FIRST** position in Govt.High School Chak No:2 JB Faisalabad.

Trainings.

Training (1988-90) in switching, transmission, outside plant/cable network, satellite communication, optical fiber from Telecommunication Staff College Haripur Pakistan.

Computer operating systems, M.S.Project-98, Data Communication from ICT Islamabad.

Affiliation:

Member of Pakistan Engineering Council.



Called for interview on 10-07-2007
Called for final interview on 23/7/2007 at 3:00 PM

PERSONAL PROFILE

NAME MUHAMMAD TANVEER
FATHER NAME MUHAMMAD HANIF
DATE OF BIRTH 12-04-1976
NATIONATILY PAKISTANI
MARITAL STATUS SINGLE
CELL NO 0321-4373134, 0300-4387601
EMAIL tanveer616@yahoo.com
tanveer@knittingconcepts.com
ADDRESS H # 41 St # 35 Mahmood Park
Shallmar Town Lahore.



FUNCTIONAL PROFILE

Over 06 years industry, banking and general management experience with particular exposure in business development, financial management, revival & restructuring of sick unit, educational management and teaching & training. Experience of leadership position and well versed in negotiations. Can handle all matters efficiently and confidently

In additional, 02 years experience in article trainee from a Chartered Accountant Co.

EDUCATIONAL QUALIFICATION

- 2000 - Master in Business Administration (GCT Faisal Town Lahore)
- 1997 - Bachelor in Commerce (University Of Punjab)
- 1994 - Diploma in Commerce (GCTI Lahore Cantt)
- 1992 - Matric from Punjab Board of Intermediate & Secondary Education

not recognized by HEC
on B. Com Qualification
Working on a local
not work

EXPERIENCE PROFILE

> Jan. 2005 To TILL DATE

Over one and half year working experience as/Manager Accounts/Finance in M/s Knitting Concepts Pvt Ltd. (Export Oriented Textile Unit of SKB group Of Companies)

Duties:- Supervision Of Accounts Department, Export Department, Financial Statement Analysis (Ratio Analysis) Internal Audit & Sales Tax Audit, Reporting Recovery And Payments Schedules, And Internal Control, Deals With Bank And Other financial institution)

> Sep 2003 to Jan 2005

Sixteen month Worked As Senior Accountant in M/s Knit One (Export Oriented Textile Unit Of SKB Group Of Companies)

Duties:- Controlling Accounts & Export Department, Inventory Control, Financial Statement Reporting, Sales Tax Audit, Work Order Costing and Control)

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➤ April 2002 To Sep 2003

Seventeen Month Worked As Accountant & Inventory Controller In M/s Diamond Knitwear Ptd.

Duties: - Book keeping, Drafting Financial statements, Remittance & Payments Schedules, Reconciliation of Parties A/c (Financial & Quantitative), Monthly Stock taking of process & stores.

➤ Oct 1999 To March 2002

Two And Half Year Worked As Accounts Officer in M/s Danish Apparel Pvt. Ltd. (An Export Oriented Composite Textile Unit)

Duties: Data Entry, Vouching, Journal Ledger Maintaining, Cash / Bank Book, Deals With Bank Loan Facilities EAPC I, EAPC II, Pre Shipment And Post Shipment Loans.

➤ August 1997 To Sep 1999

Two Years worked as article trainee student in M/s A.S.Sheikh & Co Chartered Accountant,

Area Of Responsibility

Review of the client's accounting system and internal control, Preparation of working papers and permanent files of client. Correspondence with the client on the weakness of internal control. Preparation of final accounts and books. Monitoring and evaluation of Audit program and to get on job trainings during the performance of audit. Dealt with tax and corporate affairs during training. Engaged In The Audit Of Spinning, Textile, Knitwear, Paint Industries.

AREA OF EXPERIENCE

➤ Financial Management

Book Keeping Procedure
Drafting Financial Statement
Ratio Analysis and Reporting
Cash Flow Statements
Budgeting And Projection

➤ Export Management

Export Operation & Documentation
Logistics Operation & Documentation
Banking Correspondence

➤ Other

Auditing Responsibility of Accounts and financial statement
Sales tax cases preparation and working
Sales tax audit and documentation

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ACHIVEMENTS

Team training and removing faults in existing internal control system

- Work out on existing internal control system of company
- Map out an organization chart mentioning responsibilities and duties
- Training to needed employee.
- Using existing sources with no new hiring nor expenses

Processing and set up Accounting system of new export company

- Identify account heads and map out chart of accounts
- Assign codes to cost and revenue departments for job order/department wise costing.
- Define the rights, authorization, of the user of Accounting soft wear,(Accounts, Finance, Export, Inventory, And Internal Audit)
- Appointing Accounting and inventory control staff

Modification in inventory control system.

- Assign codes to each product
- Design data sheet and product tags, using excel program
- Sort out product (size wise, color wise & coding wise)
- Made a correlation in between (Item, Store Head, Consumption, And Cost) Through Coding.

TECHNICAL SKILLS

- Strong command on MS Office
- Hands on well developed V. FoxPro, SQL server, V.B. & Oracle Accounting packages.
- Export Management Software.

HOBBIES & OTHER ACTIVITES

Web Surfing

Reading Books and articles relating to my field of work

REFERENCES

Will Furnished On Request

184-B Punjab Cooperative Housing Society
Defence Road,
Lahore Cantt
Pakistan
Phone:- 03334377009

Ahmad Ali

Personal Information

- Marital Status: Married
- Nationality: Pakistani
- Age: 49 Years
- Place of Birth: Faisalabad, Pakistan
- I.D. Card no.: 36201-1704321-7
- Permanent Address: 184-B Punjab Cooperative Housing Society
Defence Road,
Lahore Cantt
Pakistan
- E-mail Address: ahmad_88_2000@yahoo.com
- Mailing Address: 184-B Punjab Cooperative Housing Society
Defence Road,
Lahore Cantt
Pakistan

Experience

1990-1993 M/S Sh. Riaz Ahmad & Sons Lahore Pakistan

Site Engineer

- Development and Construction of Foul Fertilizer Factory Township which included:
 - a) Laying of Asbestos cement pipes for Water supply Distribution network
 - b) Laying of RCC pipes for sewerage System
 - c) Laying of M.S. pipes for natural gas distribution network
 - d) Laying of PVC pipes for Irrigation system
 - e) Construction of Sewage disposal station
 - f) Construction of Roads
 - g) Construction of "B" "C" and "D" type residences for Officers
 - h) Under ground Electrification of township and construction of sub station
 - i) HVAC system in Officers residences

- Completed all the work within stipulated time of 3 years

1993-1994

Techno Engineers

Islamabad Pakistan

Project Engineer (Civil)

- Civil works of Pumping station no. 4 of Pak Arab Refinery Co. in Distt. Rajan Pur comprising of:
 - a) Construction of 4 no. foundation for booster pumps
 - b) Construction of foundation for oil water separator
 - c) Construction of Shed for pumps
 - d) Construction of Building for Sub station
 - e) Laying 16" dia oil pipe line for by-pass.

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1994-1999

H.M. Associates (Pvt.) Ltd.

Lahore Pakistan

Project Engineer / Project Manager

- Construction of infra-structural works at Govt. Employees Cooperative Housing Society Bahawalpur and Wapda Employees Cooperative Housing Society Faisalabad comprising of
 - a) Laying of A/C pipes for water supply distribution network
 - b) Laying of RCC pipes for sewerage system
 - c) Construction of Roads approx. 60 km
 - d) Construction of RCC pump house and under ground water tank of 400000 gallons
 - e) Construction of 8 nos. Overhead water tanks of capacity 100000 gallons each
 - f) Construction of Sewage disposal station

1998-1999

Philips Electrical Ind. Of Pakistan Lahore

Project Engineer

- Construction of Street lighting system of Jail Road Lahore comprising of
 - a) Laying of RCC foundation, Erection of Poles, Fixing of Lights and termination 300 Nos.
- Construction of Traffic Signals of Jail Road Lahore

1999-2000

Lahore University of management Sciences Lahore

Pakistan

Project Engineer

- Designing and Supervision of following works in LUMS Housing Society Lahore
 - a) Water Supply System
 - b) Sewerage System
 - c) Roads about 50 kms.
 - d) Storm Water drainage system

Sep. 2000-Sep 2012

Defence Housing Authority Lahore

Additional Director (Civil)

- Town Planning of
 - a) Local Govt and Rawian Society Area in Phase-V
 - b) Phase-VI (Partial)
 - c) Phase-VII complete
- Planning, Contracting and Supervision of following works in DHA Lahore
 - a) Water Supply System
 - b) Overhead Water Tanks
 - c) Sewerage System
 - d) Sewage Disposal Stations
 - e) Roads
 - f) Storm Water drainage system
 - g) Construction of Buildings for Schools, Mosques and Club

Sep. 2012-To-date

M/S Conpro Services (Pvt) Ltd




General Manager (Contracts and Business Development)

- Bidding
- Contract Management
- Prequalification and Enlistment of Firm with Various Clients
- Business Development

Education

- 1984-1990 University of Engineering and Tech. Lahore Pakistan
• B.Sc. Civil Engineering. 6841/8000
- 1981-1983 Board of Intermediate & Sec. Education Multan, Pakistan
• F.Sc. Pre Engineering. 780/1100
- 1971-1981 Board of Intermediate & Sec. Education Multan, Pakistan
• Secondary School Certificate (Metric) 817/630.

Membership

- Professional Engineer (PE) Pakistan Engg Council (PEC)
- Member Institution of Engineers Pakistan (IEP)
- Member American Concrete Institute (ACI)
- Aff. Member American Society of Civil Engineers (ASCE)

Workshops / Seminars

- 4 Weeks Workshop on Project Planning and Evaluation using Primavera P3
- One Day Workshop on PPRA Rules
- International Seminar on Urban Traffic Engg Problems and Solutions (Author of Paper)
- International Workshop on Highway Engineering

Computer

Have a good command on following computer software

- a) Auto-Cad
- b) Windows
- c) Microsoft Word
- d) Microsoft Excel
- e) Microsoft Power point
- f) Primavera for Project Scheduling
- g) SAFE-7 (For structure design)
- h) ETABS
- i) Epanet (For design of Water Supply Network)
- j) Excel spread sheet (For Hydraulic design of Sewerage Network)

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ENGR. NOUMAN RAFIQUE



Home address:

H#19/a, St. # 12 Main Bazar Qasoor Pura Ravi Road Lahore

Tel # 042-7704396 (Res), 0345-4057670

E-mail: noumanmughal76@yahoo.com, nouman76@gmail.com

PERSONAL DATA:

FATHER NAME:	Prof. Muhammad Rafique (Late)
CNIC NO.	35202-2250397-3
NATINALITY & DOMICILE:	Pakistani / Lahore
DATE & PLACE OF BIRTH:	21 st Nov. 1976 (Lahore)
MARITAL STATUS:	Married
PROFESSION:	Civil Engineering

OTHER TRAININGS:

- PMP Certification Training Course (40-PDU'S).
- 4-day Workshop on Cash & Work Plan for Annual Development Programme.
- Ms-Project, Project Maker, Ms-Office, Auto-cad.

PROFESSIONAL AFFILIATION:

Member of Pakistan Engineering council (Civil/19630)

QUALIFICATION:

<u>DEGREE</u>	<u>PASSING YEAR</u>	<u>INSTITUTE</u>	<u>DIVISION</u>
M.Sc Civil Engineering	2006	UET-LAHORE	1 st (70%)
B.Sc Civil Engineering	1999	UET-TAXILA	1 st (76%)

BRIEF EXPERIENCE:

Practicing Professional Engineer since 1999 in the field of multi storey buildings, Roads, Environmental & Public health Engineering (Sewerage & Drainage System), Water Supply Works, Waste Water Treatment Plants & Contract Management (FIDIC based).

The major activities performed during my career are describe under,

PUBLIC HEALTH & ENVIROMENTAL PROJECTS:

As a **Manager Planning & Contracts** responsible for design review of infrastructure works (Roads, Sewerage and Water Supply network), evaluate the study reports, design criteria, preliminary design reports, draft final design reports, design calculations, FIDIC based contracts documents, Engineer's cost estimate, draft final tender documents including tender drawing and bill of quantities (BOQ).

These documents were also evaluated for storm water and waste water collection systems. Major components of assignments are population projection, socio-economic survey, study of climate, infiltration rates, analysis of rainfall data, field investigations, planning and design of waste/storm water collection system, waste/storm water pump stations and improvement in the existing drainage systems.

ENGR. NOUMAN RAFIQUE

WASTEWATER TREATMENT PLANTS:

As a Manager Construction, responsible for design review, supervision and tender evaluation of Combined Effluent Treatment Plant at Sundar Industrial Estate. Assignments comprise evaluate the study reports, design criteria, FIDIC/EPC, Turnkey contracts documents, preliminary design reports, draft final design reports, design calculations, engineer's cost estimate, draft final tender documents including tender drawing and bill of quantities.

The major components of Combined Effluent Treatment Plant are wet and dry wells, screening chamber, grit chambers, aeration tanks, surface aerators, secondary settling tanks and plant buildings.

ROADS, HIGHWAYS PROJECTS:

As a Manager Construction, responsible for design review and evaluation of the roads of Sundar Industrial Estate, Quaid-e-Azam Industrial Estate and Multan Industrial Estate. Assignments comprise evaluate the soil investigation reports, cross section of earth work, detailed geometric design, traffic study, design of pavement, design of intersections, final design reports, design calculations, engineer's cost estimate, feasibility study reports and PC-1, draft final tender documents including tender drawing and bill of quantities (BOQ).

MULTI STOREY BUILDING PROJECTS:

As a Project Engineer, responsible for design review and evaluation of the head office building having 6-levels at Sundar Industrial Estate and Multan Industrial Estate. Assignments comprise evaluate the soil investigation reports, co-ordination with the structural engineer, public health engineer and electrical engineer, evaluate the proposal drawings, final design reports, design calculations, engineer's cost estimate, feasibility study reports and PC-1, final tender documents including tender drawing and bill of quantities (Boq's).

As a Project engineer, supervised the construction of FC college projects, Lahore grammar school projects and Kinnaird college projects.

- | | | |
|----|--------------------------------|--|
| A) | Employing Agency: | <u>M/s KAA & M/s BMC (Consultants)</u> |
| | Title of Position: | Manager Planning & Contracts |
| | Location of Assignment: | Pakistan |
| | Period of Assignment: | Oct-2010- Till Date |
| | Project: | Establishment of Shahbaz Air Base (SAB) Jaccoabad |

Main Project Features:

Establishment of Shahbaz Air Base Jaccoabad including Technical & Residential buildings/Blocks, Rigid & Flexible pavement, Runways, Aprons, Walkways, cycle track and shoulders, Sewerage and Drainage network, Water Supply system, Pressure supply system, Underground Electricity system, Boundary wall, Combine Effluent Treatment Plant/ waste water treatment plant, FIDIC/ EPC Turnkey project, Design of the Head Office building, Solid Waste Management.

Activities:

As a Manager Planning & Contract responsible for contract administration & management, preparation of VO's, verification of rate analysis, design review, evaluation of technical assignment including Infrastructure & Public health Engineering, Sewerage & Drainage System, Water Supply Works & Waste Water Treatment Plants and Contract (FIDIC) management and pre-qualification of Contractors for new projects.

ENGR. NOUMAN RAFIQUE

- B) **Employing Agency:** **PUNJAB INDUSTRIAL ESTATE**
 Title of Position: **Manager Planning & Contracts**
 Location of Assignment: **Pakistan**
 Period of Assignment: **July- 2007 to Oct. 2010**
 Project: **Establishment of Sundar Industrial Estate Lahore, Pakistan**

Main Project Features:

Establishment of Sundar Industrial Estate (infrastructure development) in 1600 Acre, Rigid & Flexible pavement, Walkways, cycle track and shoulders, Sewerage and Drainage network, Water Supply system, 10-Overhead water tanks, Underground Electricity system, Estate Boundary wall, Combine Effluent Treatment Plant/ waste water treatment plant, FIDIC/ EPC Turnkey project, Design of the Head Office building, Solid Waste Management.

Activities:

As a Senior Engineer / Deputy Project Manager responsible design review, project management and technical evaluation of Roads and highways, Environmental & Public health Engineering, Sewerage & Drainage System, Water Supply Works & Waste Water Treatment Plants and Contract (FIDIC) management and pre-qualification of Contractors.

- C) **Employing Agency:** **M/s PERVAIZ VANDAL & ASSOCIATES**
 Title of Position: **Project Engineer**
 Location of Assignment: **Lahore**
 Period of Assignment: **July 1999 to Aug. 2004**
 Project: **Construction of Post Graduate Blocks Phase-II & III.**
 Client: **Kinnaird College for Women Lahore.**

Main Project Features:

Covered area 80,000 Sft, Brick masonry load bearing structures, Main special brick/gutka elevations, special brick jallies, arches and gutka flooring, Balcony designs, Landscaping development, split type Air conditioning system, Patio and Atrium details, Marble flooring.

ACTIVITIES:

- Project Management.
- Quality assurance and testing.
- Co-ordination with sub- consultants.
- Co-ordination with Clients.
- Evaluation of the Architectural, Structural, Plumbing, Electrical & HVAC drawings for construction.
- Evaluation of the Contract documents.
- Material Inspection.
- Construction supervision.
- Preparation of bill of quantities.
- Preparation of bar bending schedules.
- Preparation of PC-1 Performa.
- Verification of Contractor bills.
- Preparation of rate analysis.
- Preparation of bar bending schedules.
- Verification of sites layouts.
- Preparation of technical reports.

ENGR. NOUMAN RAFIQUE

- D) **Employing Agency:** PERVAIZ VANDAL & ASSOCIATES
 Title of Position: Project Engineer
 Location of Assignment: Lahore
 Period of Assignment: Aug. 2003 to June-2007
 Projects: Construction of Auditorium, Swimming pool, Junior and Senior Sections.
 Client: Lahore Grammar School.

Main Project Features:

Total covered area 76,000 Sft, Frame structures, Swimming pool, Auditorium hall, Amphitheater, Main special brick/gutka elevations, special brick jallies, arches and gutka flooring, Landscaping development, split type Air conditioning system, Marble flooring.

ACTIVITIES:

- Project Management.
- Quality assurance and testing.
- Co-ordination with sub- consultants.
- Co-ordination with Clients.
- Evaluation of the Architectural, Structural, Plumbing, Electrical & HVAC drawings for construction.
- Evaluation of the Contract documents.
- Material Inspection.
- Spot Checking.
- Preparation of bill of quantities.
- Preparation of bar bending schedules.
- Preparation of PC-1 Performa's.
- Verification of the Contractor bills.
- Preparation of rate analysis.
- Preparation of bar bending schedules.
- Verification of sites layouts.
- Preparation of technical reports.

- E) **Employing Agency:** PERVAIZ VANDAL & ASSOCIATES
 Title of Position: Project Engineer
 Location of Assignment: Lahore
 Period of Assignment: Oct. 2005 to June- 2007
 Projects: Construction of Business & Science buildings.
 Client: Forman Christian (FC) College Lahore.

Main Project Features:

Total covered area 2,75,000 Sft, Frame structures, Auditorium hall, Main special brick/gutka elevations, special brick jallies, arches and gutka flooring, Landscaping development, Centrally Air conditioning system, Marble flooring.

ACTIVITIES:

- Project Management in respect of quality assurance, cost & time control.
- Quality Control.
- Co-ordination with sub- consultants.
- Co-ordination with Clients.
- Evaluation of the Architectural, Structural, Plumbing, Electrical & HVAC drawings for construction.
- Evaluation of the Contract documents.
- Material Inspection.
- Spot Checking.
- Preparation of bill of quantities.

ENGR. NOUMAN RAFIQUE

- Preparation of bar bending schedules.
- Preparation of PC-1 Performa's.
- Verification of the Contractor bills.
- Preparation of rate analysis.
- Preparation of bar bending schedules.
- Verification of sites layouts.
- Preparation of technical reports.

Extra Activities:

Member of the human blood donor society Lahore.
Cricket & News paper reading.

Language Capability

English & Urdu - Excellent in speaking reading and writing.

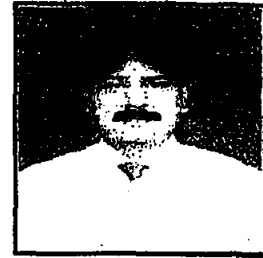
Tajdar Javed

Head of Zones Operations & Land – Bussines Operations

Cell No: +92 321 8882118

Adress: House # 720, Overseas Enclave - A, Bahria Town Lahore

Email: javedtajdar@hotmail.com



PROFESSIONAL PROMPTS

- More than twenty years' working experience in the field of Estate Sales & Marketing and land management, corporate responsibilities & General Administration.
- Have ability to develop & implement Strategy of Customer Relationship Management, Estate Management, Estate Sales & Marketing plans and handling land Legal Matters, executions of sales agreements / lease agreements affairs as per Organization's Mission Statement
- Liaison with other Departmental / Functional Heads work in a row achieve company common goals
- A good team player and a leader believe in team work and encourage, motivate & council my team to meet time lines efficiently & effectively. More emphasis on quality work
- Innovative, Proactive, Dedicated, Honest & Hardworking to accept challenges & successfully meet timelines set by the authorities

AREA OF EXPERTISE

- Real Estate Sales & Marketing
- Estate Management and Business Development
- Legal and Corporate Affairs
- Customer Relationship Management System

PROFESSIONAL EXPERIENCE ✓

Khyber Pakhtunkhwa Economic Zones Development Management Company (KPEZDMC) has been established as non-profit organization, under the meaning of Section 42 of the Companies' ordinance 1984 and wholly owned by Govt. of Khyber Pakhtunkhwa.

Job Title:

Head of Zones Operations & Land, KPEZDMC

Tenure: 21st April, 2021 till date

Job Description:

- To develop annual sales forecast that establishes new and additional revenue stream
- To develop annual sales forecast that establishes new and additional revenue streams.
- To develop reliable and competitive pricing & revenue generating strategy for company services in Economic Zones.
- Responsible for resolving contractual and commercial issues in Zones related to industries & services and for working with Zone Managers in the coordination of marketing activities and other company activities.



- To efficiently manage and motivate all Zones teams & Zones Managers.
- To monitor implementation of annual marketing and sales & recovery plans.
- To develop working relationships with company's management and employees as a basis for success down the road.
- To suggest best practices in the respective areas of expertise and growth in the years to come.
- To work in collaboration with management in reviewing scrutinizing and developing efficient and effective operational process flow in Estates.
- The incumbent is primarily responsible for the commercial strategy and development of the organization. It typically involves activities relating to marketing, sales, product development and customer service to drive business growth and market shares.
- The position is in-charge of how the customer experiences the company's brand and how the company delivers the best possible experience for the customer.
- It takes the ownership of the customer and the customer interface with the company product and service offering, making sure that all the functions of the organization are aligned to meet its strategic commercial objectives.
- Deliver strategic leadership for defining the commercial path to growth and profitability of the company and establishment of an effective growth process and infrastructure ultimately achieving self-sufficiency in all the Estate operations.
- Develop collaborative working relationship within the organization in all estates in pursuit of the company's overall business goals.
- Lead development of the company's marketing strategy with an emphasis on achieving market penetration on and sales growth with an emphasis on cost effective customer acquisition and market demand generation with the inclusion of all stake holders.
- Develop and implement the company's sales strategy across key market segments to ensure that company identifies and optimizes a clear path aggressive growth. Access, build and manage an array of necessary channels capable of delivering on the company's growth objectives.
- Manage all Estates and Economic Zones operations and effective customer services.
- Oversee the overall development and management activities of the Estates and Economic Zones, operations and device strategies for effective and productive delivery of services and high performance in customer services.
- Oversee all the files relating to transfers, bifurcations, name change, nature Change and other related tasks about industries services.
- All matters pertaining to Estates and Economic Zones.
- Any other responsibilities assigned by the management from time to time.

Job Title:

Manager Land- Land Department, KPEZDMC

Tenure: 27th May, 2019 20th Till date with additional role

Job Description:

- Manage and perform all tasks related to land acquisition, consolidation, and possession for establishing projects.
- To prepare report on selected site areas for imposition of Acquisition under Land Acquisition Act 1894.
- Supervise the possession process (whether the land demarcated and acquired is fully handed over).
- Supervision of legal issues pertaining to land acquisition in coordination with Legal Department.

Job Title:

Manager Commercial - Commercial Department, KPEZDMC

Tenure: 10th December, 2018 to 26th May, 2019

Job Description:

- To prepare and implement sales procedures, sales services (CRM), policies, team management, and feasibility of the project that includes prerequisite analysis, information, gathering homegrown industrial potential, meetings with local stakeholders i.e. Chamber of commerce, Resident Industrial communities, and potential entrepreneurs.
- Supervise the application process for Special Economic Zones status of the Zone.
- Follow-up on approvals of enterprises and zones with KPSEZA/ Federal BOI.
- Manage provincial government stakeholders and federal stakeholders and SEZ committee to make sure that all incentive, utilities and other formalities involved are looked after.
- Coordination and facilitation with local and foreign investors.
- Liaison with the resident industrialists resulting in quick colonization for making Economic Zones self-sustainable.

Job Title:

Manager Estate Office Hattar Industrial Estate- Commercial Department, KPEZDMC

Tenure: 2nd November, 2017 to 5th August, 2018

Manager Estate Office Jalozi Economic Zone- Commercial Department, KPEZDMC

Tenure: 6th August, 2018 to 9th December, 2018

Job Description:

- Operating and maintaining the Estate / Zone as a fully functional and an attractive destination for the existing and the potential industrial clients.
- To work as a custodian of land of the Estate / Zone, and to protect its assets and resources (including natural resources) from any and every kind of encroachments, encumbrances, dispute or implications and to be in contact with local administration, Revenue department, and relevant to ensure that.
- To anticipate future developments and requirements in advance with regards to land, and utilities like Power and Gas, and ensure that adequate planning and budgetary provision is made for the new developments, as well as active support in maintenance and repair works of existing to ensure continuity of services
- Monitor and supervise, Work in Progress in the Estates / Zones, and active support to Technical & Infrastructure, Energy & Power, and Land department in execution of tasks at the respective areas, and ensuring that implementation takes place as per approvals, and HO directions
- Responsible for overall financial performance, and Profit & Loss of the Estate / Zone

- Preparation of the annual budget in liaison with Head Office; once approved, its utilization as per the approvals, and the authorizations
- Generate and manage the revenues, and strive towards self-sustainable model for respective domains
- Handle all leases / renewals and responsible for leasing and other required contracts / agreements, and as and when required upon competent approval

Job Title:

Manager Sales & Marketing- Commercial Department, KPEZDMC

Manager Estates Operations

Tenure: 22nd September, 2015 to 1st November, 2017

Job Description:

- Implement sales procedures, sales services (CRM), policies, team management, and feasibility of the project that includes prerequisite analysis, information, gathering homegrown industrial potential, meetings with local stakeholders i.e. Chamber of commerce, Resident Industrial communities, and potential entrepreneurs.
- Manage one window operations for SMEs and large corporations facilitating them in land financing, project financing, equipment lending, insurance, and getting required NOCs from government authorities.
- To Manage cash stream of revenues and developmental costs hence providing strategic mix and phasing of industrial estates.
- To accomplish the issuance of land related documents and scrutiny process of application form and project feasibility report for onward issuance of provisional allotment letter, Allotment letter, Possession letter, Agreement to sell/license agreement and building completion certificate.
- Manage customer records and liaison with the industrialists/customers resulting in quick colonization for making industrial parks self-sustainable.
- Served the Company as Manager Estate Operations as well and looked after all of the matters pertaining to all Estates-Khyber Pakhtunkhwa.

Organization:	National Industrial Parks Development and Management Company
Organization Type	Engineering
Designation	Asst. Manager Marketing and Sales – North Zone
Location	Lahore, Pakistan
Tenure	February 2013 to September 2015



Job Profile and responsibilities: Sales and Marketing, Customer Services

- Prepare and implement sales procedures, sales services (CRM) policies team management and feasibility of the project that includes prerequisite analysis, information gathering home-grown industrial potentials, meetings with local stakeholders i.e. chamber of commerce, resident industrial communities and potential entrepreneurs.
- Managing One Window Operations for SMEs and Large Corporations facilitating them in Land Financing, Project Financing, equipment lending, Insurance and getting required NOC's from Government Authorities.
- Manage cash stream of revenues and developmental costs hence providing strategic mix and phasing of industrial estate

- Accomplish the issuance of land related documents and scrutiny process of application form and project feasibility report for onward issuance of Provision Allotment Letter, Allotment Letter, Possession letter, Agreement to sell / License agreement & Building Completion Certificate.
- Manage customer records and liaison with the industrialists / customers resulting in quick colonization for making industrial park self-sustainable.

Organization: M/s Glaciers (Pvt) Ltd
Organization Type Cold Store and Logistics
Designation Manager Administration
Location Lahore, Pakistan
Tenure November 2010 to December 2012



Job Profile and responsibilities: General Administration and Services

- Maintains administrative staff by recruiting, selecting, orienting, and training employees; maintaining a safe and secure work environment; developing personal growth opportunities.
- Accomplishes staff results by communicating job expectations; planning, monitoring, and appraising job results; coaching, and disciplining employees; initiating, coordinating, and enforcing systems, policies, and procedures
- Purchases printed materials and by obtaining requirements; negotiating price, quality, and delivery; approving invoices
- Completes special projects by organizing and coordinating information and requirements; planning, arranging, and meeting schedules; monitoring results
- Contributes to team effort by accomplishing related results as needed
- Achieves financial objectives by anticipating requirements; submitting information for budget preparation; scheduling expenditures; monitoring costs;

Organization: Punjab Industrial Estate Development & Management Company
Organization Type Engineering
Designation Asst. Manager Sales and Marketing
Location Lahore, Pakistan
Tenure July 2006 to August 2010



Job Profile and responsibilities: Sales and Marketing, Customer Services

- Administer Site office of Sundar Industrial Estate to implement the strategic marketing plans for advertisement and selling industrial land to potential industrialists.
- Manage & facilitate SMEs and Large Corporations to get Land Financing, Project Financing, equipment lending, Insurance and getting required NOC's from Government Authorities.
- Responsible to organize records and execute land related documents of industrial plot which includes Allotment Letter, Possession Letter and Agreement to sell and member of Building inspection team for issuance of Building Completion Certificate.
- Work on to establish and execute "Query Management System" to ensure the concept of One Window operation on part of estate management at site office Sundar Industrial Estate
- Organize and manage fortnightly meeting of CEO for effective relationship and getting feedback of estate management with the resident industrialist of Sundar Industrial Estate

✓
Organization: Directorate of Social Welfare, Women Development & Balt-ul-Maal Punjab,
Lahore

Organization Type Government Organization
Designation Data Processing Supervisor
Location Lahore, Pakistan
Tenure April 2005 to June 2006



Job Profile and responsibilities: Planning and Evaluation

- Work with Planning and Evaluation Section in Directorate and questionnaires management received from field.
- Assist preparation, editing and pre-testing of questionnaires for preparation of PC-1 for new ADP projects.
- Receiving reports from field for evaluation of performance on monthly bases.
- Generate reports of District base Social Welfare Institutes on Quarterly and yearly bases.

Organization: Govt. S.A Degree College for Boys Dera Nawab Sahib Ahmad Pur
East, Dist. Bahawalpur

Organization Type Educational Organization
Designation Lecturer
Location Ahmad Pur East, Pakistan
Tenure June 2001 to March 2005



Job Profile and responsibilities: Educational Institution (Computer Sciences)

- Administrate Computer Sciences Block and to establish college computer lab.
- Worked as member with the District Education committee Bahawalpur (Promoting IT education in Govt. high schools and Colleges level under the vision of Ministry of Information Technology)
- Worked on initiating entry level courses of computer sciences for high school & college.
- Manage and teach ICS, BSc-Computer Sciences and evening short courses admission in computer block of the college.

QUALIFICATION & PERSONAL INFORMATION

- Master's in Economics, Baha-ud-Din Zakria University, Multan
- B.Sc. (Statistics, Mathematics, Economics), Govt. Degree College Civil Lines, Multan

CNIC No: 31202-0226960-5

Date of Birth: 13th June, 1977

PROFESSIONAL COURSES & Additional Qualification

- LLB- Hazara University, Mansehra 2015-2018

- Certification of CRM National Program Organization Ministry of Industries & Production GoP.
- Certification in Microsoft Project Pakistan Institute of Management (PIM) Ministry of Industries & Production GoP.

References

- Furnish upon request

CURRICULUM VITAE



Name : ZAFAR ALAM
Father's Name : TAJ MUHAMMAD
Profession : Civil Engineering
Address : 79, K-3, Wapda Town Lahore.
Contacts : (92) (42) 5180579, 6129760
0300-4575762
E-mail : zafar_alam76@hotmail.com
Professional Membership : Pakistan Engineering Council (21218/civil)

KEY QUALIFICATIONS:

More than seven years of experience in Construction Management / Supervision and also in design of many kinds of industrial, commercial buildings, and big and small housing units and performed interactive co-ordination with consultants and clients for their successful completion.

Also have a good experience in Pre-engineered metal building system while working in a UAE company Mammut Pakistan. Fully capable of making bar bending schedules, preparing BOQs, operating AutoCAD and other softwares related to site and design work as well.

PROFESSIONAL EDUCATION:

<u>Name of Institution</u>	<u>Year</u>	<u>Degree/Diploma</u>
UET, Lahore	2006	MSc. Civil Engg. (Str.)
UET, Lahore	2000	BSc. Civil Engg.

COMPUTER KNOWLEDGE:

- Sap2000
- AutoCAD 2004
- Office 2000 (Word, Excel, Powerpoint)
- E-mail, Internet browsing trouble shooting etc.
- Primavera (certified from Engineering Congress)

Zafar Alam

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EXPERIENCE:

Name of Employing Agency
Title of position
Location of Assignment
Period of Assignment

Redco International Doha, Qatar.
Civil Engineer
Doha, Qatar
August 2006 to date

Following assignments and duties have been performed and continuing i.e.

- Worked as Senior Project Engineer on Lusail Development Project worth of 400 millions Riyals. Main duties were to supervise mass concrete blocks production of 50 tons each, their transportation to site, preparation of foundations and erection on site.
- Successfully completed Al Sheikh Hamad bin Jasim Althani villa having 2 Km long pre-cast boundary wall and a substation of covered 2500 m² within 3 months while working as a project engineer. Main duties were to design pre-cast foundations, columns, and supervised their Productions and erection on site, also prepared shops drawing for substation beam elevations and sections.
- Presently was working as Project Manager for the construction of 23 nos. of pre-cast buildings (total covered area = 48000 m²) worth of 36 millions Riyals. Also including work scope was to design and construct cast insitu foundations, and erection of pre-cast wall panels with Hollow Core slabs.

Name of Employing Agency
Title of position
Location of Assignment
Period of Assignment

Civil and Urban Engineers
Assistant Design Engineer
Lahore
December 2004 to July 2006

Following assignments and duties were performed.

- Designed roof system of Boiler house for Tandliawala Sugar mill.
- Designed Gujarat Hospital of 200 beds in brick masonry foundations, slab and beams.
- Designed 2- storey Sun Rising School Defence Lahore while using sap2000.
- Designed slab and beams of 150 Bed Social Hospital Muzzafar Ghar.
- Designed various big and small housing units in Lahore manually and also using sap2000.
- Designed slab and beams of Social Security Hospital Manga Mandi.
- Designed completely of 3 storeys Hostel for Ali Institute Lahore including basement using sap2000.
- Design many Residential and Commercial Buildings in Lahore.

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- Prepared BOQ for Kamran Industry, Sundar Industrial Estates.
- Prepared BOQ for Tec Pvt Limited, Sundar Industrial Estates.
- Prepared BOQs for Bank Alfalah, 15 Branches in Punjab.
- Prepared BOQ for 18th Storey Building at MM Alam road Lahore.

Name of Employing Agency Mammut Building System Pakistan.
 Title of position Technical and Sales Support Engineer
 Location of Assignment Lahore
 Period of Assignment June 2003 to December 2004. (1.5 yrs)
 Involved in Estimation, Coordination, Supervision and erection coordination in the following Projects.

- Shed of 6000 m³ covered area of Water Treatment Plant Nestle Karachi.
- Storage Shed of 5000 m³ covered area for Nestle Sheikhupura.
- Various Warehouses for Packages Limited Lahore.
- Coal Shed of 500 m³ for Fauji Cement.
- 700 m³ Coal Shed for Lucky Cement.
- 450 m³ Storage Shed for ICI Pakistan.
- Shed for Plastic container Karachi.
- Sports Hall in Lums, Lahore.
- Sports Hall in Aitcheson College Lahore.
- Roof Systems in Exhibition Hall Fortress Lahore.

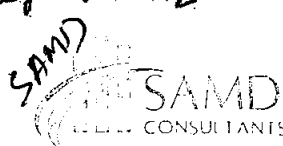
Name of Employing Agency Millac Foods (Pvt) Limited
 Title of position Assistant Civil Engineer
 Location of Assignment 5 km Raiwind Manga Road.
 Period of Assignment May 2001 to May 2003. (2 yrs)

Following Duties were performed

- Site Supervision of Powdered Milk Plant including Chilling Section, Sprayer Dryer, Roads construction, Sewerage system, under ground water tank and Tube well installation etc.
- Performed cube and soil compaction tests on site.
- Bills verification of contractor "Habib Rafiq" from client side.
- Successful coordination between contractor and design office.

LANGUAGE CAPABILITY

English Urdu and Punjabi- Excellent in speaking reading and writing.

Signature

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House # 29.b, Street # 5,
Nabipura Arian Baghbanpura
Lahore

Phone: 00923235546162
E-mail
Muhammad_aamir23@yahoo.com

Muhammad Aamir

Bachelor of Technology (Hons) Electrical Power

& Master in Business Administration (Human Resource Management)

With Seven year Cumulative Experience

I AM AN ASSIDUOUS AND ENTHUSIASTIC ELECTRICAL ENGINEER HAVING CONCEPTUAL AND TECHNICAL SKILL WITH PRACTICAL EXPERIENCE & LIKE TO WORK IN CHALLENGING ENVIRONMENT OF ORGANIZATION TO UPLIFT CONCERNED DEPARTMENT.

Projects:

- Monitoring of testing & commissioning of 132/11 kv grid station Sunder Industrial estate along with testing commissioning of 31.5 / 40 MVA transformer (Siemens) and testing commissioning of 10 no's 11 kv panels.
- laying, testing, commissioning of 11 KV 02 no's feeders (Radial for 10 MW load) for M/S Tetra Pak along with design of protection scheme and erection, testing commissioning of 11 kv metering and protection panel.
- Design and laying, testing, commissioning of 11 KV 01 no's feeders (Radial for 3.2 MW load) for M/S Gourmet along with design of protection scheme and erection, testing commissioning of 11 kv metering and protection panel.

Education	<p>July 2005 to 2007 Allama Iqbal Open University Islamabad. Masters of Business Administration (Human Resource Management).</p> <p>Sep 1999 to Sep 2003 University of Engineering & Technology Lahore.</p> <p>Bachelor of Technology (Pass) & (Hons) in Electrical Power.</p>
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Professional
experience

August 2008 TO UP TO DATE PUNJAB INDUSTRIAL ESTATES(Sundar Industrial Estate) Lahore



Jr. Engineer Electrical

- Assistant Manager of all electrical activities at Sundar industrial estate Lahore.
- At managerial level of technical working with M/S Siemens operation and maintenance of 36 no's 11 kV feeders supplying electricity to the more than 300 national and multinational industries.
- Managing weekly / fortnightly/monthly/ Quarterly/biannually/annually maintenance Schedule for RMU (3way 4 way SSBs) and Transformer.
- Designing and erection testing, commissioning of the network extension of 11 KV systems to supply the electricity to under developed infrastructure areas.
- Overall supervision of operation & maintenance of electrical 11 KV U.G cable systems (500 mm sqr and 120mm sqr) for all mixed nature industries of estate.
- Operation and maintenance of street light covering the 1600 acre area.
- Monitoring the Meter installation of all KWH /L.T /H.T meter (MDI TOU Meter & Electromechanical meter).
- Programming of MDI meters (Syed Bhies & Elster) for different industrial & commercial connection as per requirement.
- 11 KV Protection Relays setting for circuit breakers on different industrial panel.
- Testing and commissioning of 36 no's of 11 kV feeders at 132 KV grid station after Meggering and hipot.
- Monitoring of Reading of all industrial tariff connections.
- Efforts for Minimization of electrical line losses of the overall system.
- Making of feasibility for all industrial & commercial tariff connection up to 5000 KW.
- 11 KV panel inspections (Testing of CT, s Protection Relay i.e. Hipot, over current, earth fault) Consumer metering & protection panel.
- Managing the load of up to 36 MW.
- Verification of material, O & M and Extra O & M invoices of contractors, such as Siemens.
- Handling of Issues regarding the electrical connection.
- Issues resolution with other different government department i.e. LESCO Wapda.
- Correspondence with executive management of the Organization and outside.
- Regular meetings with high ups for coordination and progress review,

December, 2005 to July 2008 Vocational Training Institute Wazirabad, (PVTC) Lahore



Manager/Principal

- Overall incharge of institute.
- To manage all the activities related to the training & development.
- To make analysis and deal with financial & accounting matters, budgeting, reporting i.e. financial statements etc.
- Being the secretary of selection committee and immediate to all staff, Recruitment & performance evaluation of staff and concerned matters Directly / Indirectly performed by me.
- To run MIS, GL, accounting (General ledger) & TP (trainee profile) software successfully with managerial approaches.
- Cost & Quality control of training in all departments ,

- Official correspondence with head office and other government, private offices.
- Events management at district level.
- Conflict resolution among the crew of the Organization.
- Feasibilities of new demand driven trade as per feedback of industries.
- To run the admission campaign in rural and urban areas.
- To attend internal and external audit for the funds.
- To arrange pedagogical training session for the teaching staff.
- Making SWOT analysis of the organization to run the institute more progressively.
- Having the continues meeting of district progress review meeting with colleague and management.
- To procure all the consumable and non consumable items for the institute being chief procurement officer.
- To arrange the funds for the pass outs for the self employment from bait-ul-mall depl.
- To get funds from provisional Zakat Council and district Zakat Council
- Creating new jobs opportunities for the pass outs by dealing with local industries with the help of Board of Management.

July, 2003 to September 04 Pakistan Atomic Energy Commission Khyshab.

Sr.Tech Electrical

- To manage all site area as general shift incharge.
- New electrical equipment installation testing and commissioning i.e. motors up to 150 H.P (DOL, Star Delta and Reverses & forward etc).
- Operation & maintenance of existing equipment such as generator(1500 KVA), induction
- Motors control and power circuit of power & lighting load, checking of panels wiring etc.
- Operation & maintenance of underground electrical system such as H.V & L.V cables, Ring main units (3 way 4 way), pad mounted transformers (200 to 750 Kva), induction & synchronous Motors.
- Wiring installation testing and commissioning of site workshop.
- Wiring installation testing and commissioning of site offices.
- Earthing & floor grid earthing for protection scheme.
- Earthing & floor grid earthing for protection scheme.
- Report writing about daily activity staff management remained under my supervision.

January 2002 to January 2003 WAPDA LESCO Lahore.



Line Superintendent I

- Technical administration of operation & maintenance all 05 no's 11 KV over head feeder's.
- Operation and maintenance of Low Tension distributing system
- more than five feeders.
- New connection both domestic and industrial (B1, B2, B3) up to 5000 KW.
- Load division & transformers maintenance of (50 KVA to 450 KVA) transformers.
- Follow up duties to control theft of electricity.
- Supervision of Major's complaint handling such as (Feeder Dead Short, feeders break down).
- Designing, laying testing and commissioning of over head 11 KV feeders.
- Store record keeping, bookkeeping and report writing of all activities regarding O & M.
- Meeting with high ups regarding line losses and O & M.
- And all other concerned matters were also remained under my supervision.

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Internships

1. One year internship in Wapda (LESCO) 132kv yard & GIS type grid stations as a Trainee Engineer.

1. Over all assistance in Operation and maintenance of grid station.
2. Monitoring of load management of all 12 no's 11 kv feeders.
3. Operation regarding tape changing for regulation of voltage Variation.
4. Making daily reports for official correspondence.
5. Events Management regarding monthly ,quarterly ,six monthly Maintenance.
6. O/C E/F electromechanical(CDG) and digital Siemens, vamps relay Setting for 11 kv panel with coordination of P & I department.

2. Six month internship in Victoria & Sohail Mechanical complex as Trainee Engineer.

1. Overall supervision of installation, testing and commissioning of water Pumps (submersible etc).
2. Design of motor control and power circuit as per requirement i.e. Star Delta ,reverses Forward and DOL for different site as service engineer.
3. Maintenance of all control and power circuit.
4. Over all supervision of factory based electrical installation and maintenance issues.

3. Three month internship in Tetrapak (packages) as Trainee Engineer.

1. Supervision of all electrical activities under the management of incharge electrical in board mill side.
2. Design of motor control and power circuit as per requirement i.e. D.C series/shunt Thyristor control motor induction motors with inverters control and synchronic motors of Different paper and pulp machines.
3. Installation ,testing ,commissioning of new motors was remained under my Supervision.
4. Repair and maintenance of different light load circuit were also under my supervision
5. Report Writing of daily activity.

4. Three month internship in ptc digital exchange shahdra Lahore as Trainee Engineer.

1. Operation and maintenance of 50 KVA generators.
2. Over all look after of fully automatic digital telephonic exchange made Ericson.
3. Attending the In house based complaints regarding communication
3. report writing of daily activities

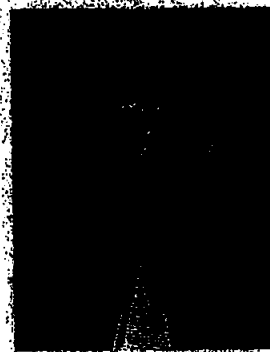
Languages	English, Urdu and Punjabi.				
Summary of Qualifications	Examination	Year	Marks Obtained	Division	University / Board
	MBA (HRM)	2007	66%	First	AIOU Islamabad
	B.Tech (HONS) Electrical Power	2005	87%	2 nd Position	UET Lahore
	B.Tech (Pass) Electrical Power	2003	77%	2 nd Position	UET Lahore
	DAE Electrical	1999	69%	First	PBTE Lahore
	Matriculation Science	1995	75%	First	BISE Lahore
	Computer Skills	<ul style="list-style-type: none"> • Having good command on M.S Office professional Window X P and Internet Utilities. • Having Short courses of computer. 			
Distinction	<ul style="list-style-type: none"> • Second position in B.Tech (Hons) in UET Lahore • Second position in B.Tech (Pass) in UET Lahore 				
Courses	<ul style="list-style-type: none"> • One month managerial training in STTI TEVTA Lahore. • One week managerial competency training in PITAC Lahore. 				
Running course	<ul style="list-style-type: none"> • Certification of chartered Engineer from City & Gild Institute United kingdom (U.K)(online) 				
Hobbies	<ul style="list-style-type: none"> • Books reading on Islam & literature. 				
Reference	<ul style="list-style-type: none"> • Available according to the requirement. 				
Other information					
Father's Name	Amanat Ali				
Date of Birth	16 March, 1979				
NIC #	35200-1518270-9				
Nationality	Pakistani				

AAMIR TAUFIQUE

0322-4004333

Personal information

Father's Name : Taufique Ahmed
Date of Birth : 08th March 1973
Nationality : Pakistani
Tel # (Res.) : (92-42) 5035979
Address : House No. E303/5A1, Street No. 2
New Iqbal Park, Rifle Range Road,
Lahore-Pakistan
N.I.C. : 272-73-316682
Passport # : F-405234
E-mail : aamir.taufique@yahoo.com



Education

B.Sc. (Civil Engineering) : University of Engineering & Technology, Taxila.
1st Division (1992-1997)
Intermediate (Pre-Engg) : Cadet College Hassan Abadal, Pakistan.
A-Grade
Matriculation (Science Group) : Cadet College Hassan Abdal, Pakistan
A-Grade

Computer Knowledge

Auto CAD for professional : Pakistan Engineering Congress
SAP90 (BASIC) : Pakistan Engineering Congress
MS-Office : Pakistan Engineering Congress
MS-Excel : Pakistan Engineering Congress

Designing

1) January 1997-July 1997

Internship Period with consultants M/s Arif Tanveer Associates, Opp: Barkat Market, Garden Town, Lahore.

2) July 1997- August 1998

Joined the same organization as Designing Engineer. Jobs done for them during my tenure with them:

- i. Designing for the structure of EDEN TOWERS, Main Boulevard, Gulberg, Lahore having 8-Floors and 2-basements and 1-Revolving Restaurant on the top floor, using SAP-90.
- ii. Designed architectural views in 3D for Revolving Restaurant of Eden Tower using AutoCAD.

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Construction

3) Sep 1998-October 2002:

Joined M/s Haji Noor Mohammad & Sons (known for their big projects including Aiwan-e-Iqbal, Lahore and Panorama Center, Lahore etc.).

4) Oct 2002-March 2003:

Joined M/s Echo West International

5) March 2003-March 2004

Joined M/s A.N associates.

6) April 2004- December 2004:

Joined K.K.P (Pvt) Ltd. (Kohinoor Group)

7) January 2009

Joined Global Infrastructure (Spring Meadows).

8) January 2009- June 2009

Joined Eden Housing (Pvt) Ltd.

9) June 2009-Till Date

Joined Haji Ayyub Noor & Sons

Projects Conducted:

a) Sher-e-Bengal Model School, Shahdara, Lahore (Site Engineer)

September 1998-september 1999:

Performed all site Layouts and Surveys including Contouring of Plot, Controlling Levels of Building and Layouts of Building including Sewerage, Boundary, Paved Areas, Brick work and R.C.C Work, under supervision of world known consultants M/s National Engineering services Pakistan (NESPAK). The total covered area of the project was 35,000 sq.ft. The project ended in September 1999.

b) Muhammad Ali Jinnah Institute of Technical Training, Raiwand, (Comsats) Lahore (Site Incharge)

October 1999-October 2000:

The project is designed by well-known architect Mr. Pervaiz Vandal. This experience included Face Works with beautiful projections and designs, Spiral and Semicircular Stairs. This project is also supervised by NESPAK.

c) Water Supply System for Sher-e-Bengal Labour Colony, Shahdara, Lahore. (Site Incharge)
November 2000-March 2001.

The Project is supervised by NESPAK and the water supply also includes overhead water reservoir of approx. 60,000 gallons of water.

Continue

- d) Divisional Public School (Extensions), Model Town & Township Branches, Lahore. (Site Incharge)
April 2001-October 2002.
The project designed by R.K. Associates having Brick Masonry Structure including all external Developments, Computer Labs, Science Labs, Admin Block and Mess Hall with covered area of approx. 26,000 sq ft.
- e) Embassy of Kingdom of Saudi Arabia, Diplomatic Enclave, Islamabad. (Site Engineer)
October 2002-March 2003.
Worked there as Site Engineer and had a great exposure in the field of construction.
- f) Defence Public School, D.H.A Lahore Cantt. (Site Engineer)
March 2003-February 2004.
Worked there as Site Engineer.
- g) DHA Officer's apartments, Sector DD, Sector IV, D.H.A., Lahore Cantt. (Site Incharge)
February 2004-March 2004.
Worked there as Site Incharge.
- h) Kohinoor One Shopping mall, Kohinoor City, main jaranwala road, Faisalabad.
(Senior Coordination & Planning Engineer)
April 2004- December 2004.
Multi Story building with Frame Structure, Capsule Lifts, Cargo Lifts, Elevators, A lot of mechanical and civil works involved.
- i) Spring Meadows, Bedian Road, Lahore. (Project Manager)
January 2005-January 2009.
Development Works, Infrastructure Works i.e., Road Network, Sewerage Work, Electricity, landscaping, Water Supply and Building Works.
- j) Eden housing (Pvt.) Ltd.
(Dpty Project Manager)
January 2009 June 2009.
Construction of Houses in Different sizes, with beautiful elevations in details, Road Networks water supply, Sewerage system with disposal station, parks development electric supply, complete colony development.
- k) Haji Ayyub Noor & Sons
(Director projects)
June 2009-Till date.
Constructing new buildings of U.E.T campus Lahore U.E.T campus Kalashahkaku, U.E.T campus Faisalabad Rescue Building 1122 at sunder industrial Estate Lahore, and have completed sewerage infrastructure at sunder Industrial Estate Lahore.

Career Objectives

To secure a challenging position in the field of CONSTRUCTION



CURRICULUM VITAE

PROPOSED POSITION

1. **Name** MUHAMMAD WASEEM
2. **Date of Birth** 12 APRIL 1970
3. **Nationality** Pakistani
4. **Personal Address** House No.13 street #10 new Multan T-block
Multan, Pakistan
Telephone No. +92-3216325163, +92-3334748270
E-Mail Address mwk2002pk@yahoo.com
5. **Education**
 - Bachelor of Civil Engg. From UET Taxila in 1st Division with Honour in Year 1997.
 - Bachelor of Science in 1st Division from BZU Multan in 1989.
6. **Other Training - Computer Skill**
 - Windows XP and old versions, Ms Office,
 - Auto-Cad,
 - Eagle Point (RoadCalc),
 - Land Desktop, Adobe Photoshop,
 - Business English Program from Pakistan Institute of Management Lahore.
7. **Language & Degree of Proficiency**

	Speaking	Reading	Writing
English	Excellent	Excellent	Excellent
Urdu	Excellent	Excellent	Excellent
Arabic	Good	Good	-
8. **Membership in Professional Societies**
 1. Life Time Membership of Pakistan Engineering Council.
 2. Member of Pakistan Engineering Congress.
9. **Countries of Work Experience** Pakistan, Saudi Arabia.

M. Waseem

SAMD

SAMD
CONSULTANTS

10. Employment Record

From Feb 2006

to date

Employer:

WATEEN Telecom (Pvt) Ltd. Pakistan (Abu Dhabi Group)

Position Held:

Regional Manager Construction, Land acquisition and operation maintenance.

Project:

Infrastructure (Roads and Buildings) development & operation maintenance of Projects.

Description of Duty:

Site acquisition in different locations for construction of multi storey buildings.
Construction Supervision and management of works of the project.
Concrete work of footing and columns of tower.
Construction of frame structure with raft or isolated footings.
Columns, footing beams, plinth beams, slabs.
Checked/verified the monthly payment certificates being paid to the contractor/vendor.
Preparation of daily, weekly and monthly progress reports.
Project execution and supervision such as testing of soil, survey of the area and total works as per engineering codes and practices.
Handling the operation and maintenance of ADM buildings and RAN sites.
Monitoring & achieving prime schedules including progress curves inline with target. Progress monitoring and reporting to Management

From Feb 2005

to 31-01-2006

Employer:

Engineering General Consultants EGC (Pvt) Ltd.

Position Held:

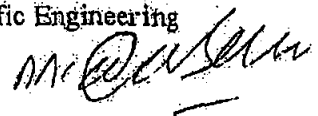
Senior Highway Engineer/Assistant coordinator.

Project:

Road Construction & Traffic Engg. Projects.

Description of Duty:

Preparation of geometric design of the highways.
Design review of the Hala chanesar bridge project along N5 in province Sindh as per AASHTO standards.
Design review of Balochistan road development sector project Quetta as per AASHTO standards.
Attend monthly progress meetings with client / general consultant and coordinate on various issues of planning and project control.
Construction management.
Making the overall construction schedules.
Preparation of pre-qualification documents and progress reports of projects.
Technical documentation with general consultants and client.
Assist in the feasibility study of mitigation to Traffic Engineering works.



From 01-05-2002

to 15-01-2005

Employer:

Al-Gharmool Establishment Holy Makkah K.S.A

Position Held:

Design Engineer.

Project:

Road Construction Projects in Urban area of Holy Makkah.

Description of Duty:

Designing the plans and profiles, X-sections of roads over Auto-Cad, Design verification/approval.
Preparation of Shop & as Built drawings.
Updating Monthly Construction programs.
Interim payment certificates.
Estimations and calculation of quantities etc.

From 01-12-2001

to 30-04-2002

Employer:

Al-Gharmool Establishment Jeddah K.S.A

Position Held:

Project Engineer.

Project:

Northern Container Terminal Project In Jeddah Islamic Sea Port.

Description of Duty:

Supervision and management of works of the project.
Quality control of construction works such as CBM-4 (Concrete Bond Material) By Paver Machine (which maintained as per British Standards) and sub base.
Interim payment certificates.
Work schedules of the project.
Estimations and calculation of quantities etc.
Posford Duvivier (London)

Consultant:

From 16-01-2001

to 30-11-2001

Employer:

Al-Gharmool Establishment Jeddah K.S.A

Position Held:

Project Engineer.

Project:

Re-habilitation and Re-Asphalting road project in Industrial zone at Jeddah.

Client:

Ministry of Industry and Electricity.

Description of Duty:

Management and Supervision of all the works of the project like designing and execution works such as (Excavation up to 70 cm, laying filter Material, Geo-Textile Sheet, sub base and asphalt 1.0 cm).
Preparation of Shop & as Built drawings.
Updating Monthly Construction programs.
Interim payment certificates, calculation of quantities etc.

From 27-07-1997

to 12-01-2001

Employer:

M/S Hidayat Ullah Khan & Co. Mianwali Pakistan.

Position Held:

Site Engineer.

Project:

ADB RARP-I Road projects in district Multan Pakistan.

Description of Duty:

Construction supervision as per conditions of contract.

Progress meetings with consultant and client.

Work schedules of the project.

Making the x-sections, calculation of quantities.

Preparation of bar bending schedule for structures.

Preparation of Shop & as Built drawings.

Making of interim payment certificates and escalations of project.

M. Qasim

Signature:

Date of Signing:

NA. Qasim

Day / Month / Year

MUHAMMAD UMER FAROOQ

Civil Engineer (civil/25940)

Cell: +923030471984, +923337982367



OBJECTIVE

Seeking a challenging and responsible position where my education, abilities and potential can be fully and efficiently utilized, which offers opportunities of growth, to acquire more knowledge and skill, and to utilize my skills of Engineering and Management up to the maximum.

PERSONAL INFORMATIONS:

Working Experience:	15 year of Experience
Father's Name:	Ghulam Shabbir Khan
Date of Birth:	March-23-1983
C.N.I.C. #:	32304-1533043-3
Marital Status:	Married
Permanent Address:	St#2, H#4, Model Town near Agosh Hotel Muzaffargarh.
Email:	engrumer47@gmail.com

EDUCATION:

- B.Sc. Civil Engineering (2001-2005)
Bahauddin Zakariya University Multan.

COMPUTER SKILLS:

Proficiency In the use of Computer especially in the following items;

- Microsoft Word
- Microsoft Excel
- Microsoft Project.
- Microsoft Power Point.
- AutoCAD Basic knowledge
- Computer Hardware Basic knowledge

Handwritten signature/initials.

Professional Experience:

Construction Assurance Engineer (Roads & Infrastructure).

CDM Smith joint venture with National Development Consultant (Pvt.) Ltd. (June 2020 to Present)

Project: Architect- Engineer Independent Quality Assurance and Milestone Certification Services for USAID's Federally Administrated Tribal Areas Infrastructure and Khyber Pakhtunkhwa Reconstruction Programs (A-E FIP KPRP)

Client: USAID

Amount: 200 Million \$

- Independent Quality Assurance and Milestone certification of roads, buildings and infrastructure projects in KPK and Fata Secretariat.
- Review PC-1/ project estimate, construction schedules and construction/ as built drawings of all related projects.
- Conduct Periodic Inspection of field visits, prepare reports, and ensure testing of materials to achieve the quality as per drawings and specifications for all work under the contract document.
- Control and monitor the all activities following the Method Statement & Quality Assurance plan.
- Carry out internal audit as schedule in Project Quality Plan.
- Follow up and coordination meeting with Executing Agencies PDMA/ PARSSA, C&W, Irrigation & Public Health department consultant and client representative regarding quality concerns.
- Responsible in quality and workmanship of every activities through knowledge of all phase of engineering (Civil, Structure & Architecture).
- Review the all documents include certificates, test results, calibration etc. as per QA plan.
- Preparation of field visit reports, weekly status, monthly progress, milestone certificates, monitoring forms, issues logs substantial completion reports, punch list verification inspection and final inspection reports & acceptance.

Senior Structure Engineer.

SMEC International Pty Ltd joint venture with ECSP (Pvt.) LTD. (March 2017 to November 2019)

Project: Peshawar Karachi Motorway (PKM) Sukkur-Multan Motorway M5 Section IV.

Client: National Highway Authority.

Assist the Resident Engineer and Project Director in all Respect including Site Supervision and Office Work.

- Construction of Multi Span 14 Bridges, 14 Underpasses, 20 Cattle Creep, 15 Subway, 180 Pipe Culverts and Construction of Buildings such as Rest Area, Service Area, Toll Plaza Building and NHA Complex.
- Assists with Administering Construction Contracts by Monitoring/Inspecting Contractor's Work for Compliance with Plans, Specifications and Schedules.
- Establishing and Maintaining Effective Working Relationship with all the Parties.

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- Preparing Daily Report, Construction Record, Reviewing Plan Specification and Updating Logs in regard to Rfi's and Submittals.
- Supervision of all Piling Work, Pile Cap, Pier, Transom, Precast I Girder & Launching of Girder and Deck Slab according To Drawing.
- Monitor the Installation of ITS (Intelligent Transport System) on Motorway, Toll Plaza And Equipment Room such as Video Camera, Lane Camera, Microwave Detector, Antenna, Emergency Telephone System Composition and FM Tower.
- Monitor the Electrical Works at Service Area, Rest Area, Interchange Building and Laying Of 4 Core Wire & Fiber Optical along the Motorway for the ITS System And Light Pole on Services.
- Monitor and Installation the Fire Fighting System on Interchange Building And Service Area and also supervise the Ancillary Works such as Sign Board, Guard Rail, Lane Marking, Studs, Fence, Reflector and Delineator etc.
- Check the Contractor Construction Methodologies, Equipment, Testing and Approval of All Materials before Construction.
- Preparation of Daily, Weekly And Monthly Progress Report And Check the Contractor Monthly Interim Payment Certificate Accordingly.
- Checking of Construction Drawings, Shop Drawings and As Built Drawings.
- Preparation and Checking Of Bar Bending Schedules Of Bridges, Culverts and Allied Structure.
- To Maintain the Quality Assurance and Quality Control.
- Coordination with Client and in House Consultant.
- Conduct Fortnight Meeting for the Achievement of Milestone of the Project.
- To Check the Assigned Construction Activities to Determine the Scope, Time and Resource Requirements.

Project Manager.

Amec JV Nazir & Co. (February 2016 to March 2017)

Project: Gawadar Ratodero Road Project Motorway
M-8 (Khuzdar - Shahdadkot) Section iv Package.iii.

Client: National Highway Authority.

- Construction of Km 50 of Highway with Embankment Fill, Sub Base, Aggregate Base Course, Prime Coat And Asphalt With All Respect.
- Construction of Multi Spans 09 Bridges and 180 Culverts.
- Cutting of Hard Rock, Medium Rock with Blasting and Hammers For Formation of Road Embankment.
- Checking of Construction Drawings, Shop Drawings and As Built Drawings.
- Preparation and Checking of Bar Bending Schedules of Bridges, Culverts and Allied Structure.
- To Maintain the Quality Assurance and Quality Control.
- Preparation of Sub Contractors Bill and Checking of their Work Up To Date Such As Drawings and Specification.
- Preparing Daily Report, Construction Record, Reviewing Plan Specification and Updating Logs in regard to Rfi's and Submittals.

- Supervision of All Piling Work, Pile Cap, Pier, Transom, Precast I Girder & Launching of Girder and Deck Slab according to Drawing.
- To Maintain the Quality Assurance and Quality Control.
- Coordinates with Client and Design Engineers.
- To Check the Assigned Construction Activities to Determine the Scope, Time and Resource Requirements.

Construction Manager.

Sinohydro Corporation Limited. (October 2014 to February 2016)

Project: Rehabilitation and Up gradation of Sulemanki Barrage.

Client: Irrigation & Power Department (Govt. of Punjab).

- Construction and Rehabilitation of Floors of Barrage, removal of old Deck Slab of Barrage with new one slab, Replacement of Gates and also construction of new Rest House Building in Irrigation Colony.
- Driving of Steel Sheet Piles.
- Preparation of Construction Drawings, Shop Drawings and As Built Drawings.
- Preparation and Checking of Bar Bending Schedules of Bridges, u/s floor, deck slab and Allied Structures.
- Dewatering and Bailing out of Upstream & Downstream of Floor.
- Fixing of Rowel Bolts on Existing Floor.
- 0.75 ft Overlay High Strength Concrete on Existing Floor, Glacis and Crest of the Structure.
- Preparation and Checking of Monthly IPC's.
- Preparation of Bar Bending Schedule.
- Preparation of Sub Contractors Bill and Checking of their Work up to Date such as Drawings and Specification.
- Preparing Daily Report, Construction Record, Reviewing Plan Specification and Updating Logs In Regard To Rfi's and Submittals.
- To maintain the Quality Assurance and Quality Control.
- Coordinates with Client and Design Engineers.
- To check the Assigned Construction Activities to determine the Scope, Time and Resource Requirements.

Construction Manager.

October

Sparco-Clie Joint Venture (April 2010 to January 2014)

Projects: Rehabilitation & Up gradation Of Lower Bari Doab Canal Project Sahiwal (ICB-02).

Client: Irrigation & Power Department (Govt. of Punjab).

- Construction of 04 Nos. District Road Bridge, 12 Nos. Village Road and 05-Foot Bridges.
- Construction of 8 Nos. Cross Regulator with its Diversions complete and monitor the all Earth Work activities with its all relevant Testing.
- Driving of steel sheet piles

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CONSULTANTS

- Construction of Canal Rest House, Watch & Ward Station at each X- Regulators.
- Construction of 05nos. Head Regulators and Rehabilitation of 19nos. Head Regulators.
- Preparation of Construction Drawings, Shop Drawings and As Built Drawings.
- Preparation And Checking Of Bar Bending Schedules Of Bridges, U/S Floor, Deck Slab and Allied Structures.
- Preparation of Sub Contractors Bill and Checking Of Their Work Up To Date Such As Drawings and Specification.
- Preparing Daily Report, Construction Record, Reviewing Plan Specification and Updating Logs In Regard To Rfi's And Submittals.
- Establishing and Maintaining Effective Working Relationship With All The Parties.
- To Maintain the Quality Assurance And Quality Control.

Junior Engineer.

National Engineering Services Pakistan (NESPAK). (February 2007 to April 2010)

Project: **Construction of Kachhi Canal Project.**

Client: Water and Power Development Authority.

- Construction and Supervision of Kachhi Canal Head Regulator at Tausna Barrage and Extension of Silt Excluder as per Drawings and Specifications.
- Construction and Supervision of Earthwork for Embankment Preparation and Construction of Bridges, Super passage and Siphons.
- Check the Contractors Monthly IPC.
- Check the Contractor Methodology and Material Submittals.
- Preparing Daily Report, Construction Record, Reviewing Plan Specification And Updating Logs In Regard To Rfi's And Submittals
- To Check the Assigned Construction Activities to determine the Scope, Time and Resource Requirements.
- To maintain the Quality Assurance and Quality Control

Junior Engineer.

National Development Consultants (Pvt) Ltd. (January 2006 to February 2007)

Project: **Tausna Barrage Emergency Rehabilitation & Modernization Project.**

Client: Irrigation & Power Department (Govt. of Punjab).

Tausna Barrage Project was heavy Mass Concrete Project and Different Techniques Were to Rehabilitate the Barrage.

- Construction Supervision of Following Civil Work.
- Construction of All Concrete Works Like U/S Floor & Glacis, D/S Floor & Glacis With End Sill At Sub-Weir 4347.5ft Long.
- Construction of Cofferdam.

- Dismantling and Concreting Of U/S & D/S Floor of Main Barrage.
- Dismantling and Reshaping Of U/S & D/S Crest of Main Barrage.
- Construction of Fish Ladder, Flared Out Wall, U/S & D/S Floor Apron.

Am

House # 29.b, Street # 5,
Nabipura Araian Baghbanpura
Lahore

Phone: 00923235546162
E-mail
Muhammad_aamir23@yahoo.com

Muhammad Aamir
Bachelor of Technology (Hons) Electrical Power
& Master in Business Administration (Human Resource Management)
With Seven year Cumulative Experience

I AM AN ASSIDUOUS AND ENTHUSIASTIC ELECTRICAL ENGINEER HAVING CONCEPTUAL AND TECHNICAL SKILL WITH PRACTICAL EXPERIENCE & LIKE TO WORK IN CHALLENGING ENVIRONMENT OF ORGANIZATION TO UPLIFT CONCERNED DEPARTMENT.

Projects.

- Monitoring of testing & commissioning of 132/11 kv grid station Sundar Industrial estate along with testing commissioning of 31.5 / 40 MVA transformer (Siemens) and testing commissioning of 10 no's 11 kv panels.
- laying, testing, commissioning of 11 KV 02 no's feeders (Radial for 10 MW load) for M/S Tetra Pak along with design of protection scheme and erection ,testing commissioning of 11 kv metering and protection panel .
- Design and laying, testing, commissioning of 11 KV 01 no's feeders (Radial for 3.2 MW load)for M/S Gourmet along with design of protection scheme and erection ,testing commissioning of 11 kv metering and protection panel .

Education	<p>July 2005 to 2007 Allama Iqbal Open University Islamabad. Masters of Business Administration (Human Resource Management).</p> <p>Sep 1999 to Sep 2003 University of Engineering & Technology Lahore.</p> <p>Bachelor of Technology (Pass) & (Hons) in Electrical Power.</p>
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**Professional
experience**

August 2008 TO UP TO DATE PUNJAB INDUSTRIAL ESTATES(Sundar Industrial Estate) Lahore



Jr. Engineer Electrical

- Assistant Manager of all electrical activities at Sundar industrial estate Lahore.
- At managerial level of technical working with M/S Siemens operation and maintenance of 36 no's 11 kV feeders supplying electricity to the more than 300 national and multinational industries.
- Managing weekly / fortnightly/monthly/ Quarterly/biannually/annually maintenance Schedule for RMU (3way 4 way SSBs) and Transformer.
- Designing and erection testing, commissioning of the network extension of 11 KV systems to supply the electricity to under developed infrastructure area.
- Overall supervision of operation & maintenance of electrical 11 KV U.G cable systems (500 mm sqr and 120mm sqr) for all mixed nature industries of estate.
- Operation and maintenance of street light covering the 1600 acre area.
- Monitoring the Meter installation of all KWH /L.T /H.T meter (MDI TOU Meter & Electromechanical meter).
- Programming of MDI meters (Syed Bhies & Elster) for different industrial & commercial connection as per requirement.
- 11 KV Protection Relays setting for circuit breakers on different Industrial panel.
- Testing and commissioning of 36 no's of 11 kV feeders at 132 KV grid station after Meggering and hipot.
- Monitoring of Reading of all industrial tariff connections.
- Efforts for Minimization of electrical line losses of the overall system.
- Making of feasibility for all industrial & commercial tariff connection up to 5000 KW.
- 11 KV panel inspections (Testing of CT, s Protection Relay i.e. Hipot, over current, earth fault) Consumer metering & protection panel.
- Managing the load of up to 36 MW.
- Verification of material, O & M and Extra O & M invoices of contractors, such as Siemens.
- Handling of Issues regarding the electrical connection.
- Issues resolution with other different government department i.e. LESCO Wapda.
- Correspondence with executive management of the Organization and outside.
- Regular meetings with high ups for coordination and progress review.

December. 2005 to July 2008 Vocational Training Institute Wazirabad, (PVTC) Lahore



Manager /Principal

- Overall incharge of institute.
- To manage all the activities related to the training & development.
- To make analysis and deal with financial & accounting matters, budgeting, reporting, i.e financial statements etc.
- Being the secretary of selection committee and immediate to all staff, Recruitment & performance evaluation of staff and concerned matters Directly / indirectly performed by me.
- To run MIS, GL accounting (General ledger) & TP (trainee profile) software successfully with managerial approaches.
- Cost & Quality control of training in all departments ,

- Official correspondence with head office and other government, private offices.
- Events management at district level.
- Conflict resolution among the crew of the Organization.
- Feasibilities of new demand driven trade as per feedback of industries.
- To run the admission campaign in rural and urban areas.
- To attend internal and external audit for the funds.
- To arrange pedagogical training session for the teaching staff.
- Making SWOT analysis of the organization to run the institute more progressively.
- Having the continues meeting of district progress review meeting with collogue and management.
- To procure all the consumable and non consumable items for the institute being chief procurement officer.
- To arrange the funds for the pass outs for the self employment from bait-ul-mail deptt.
- To get funds from provisional Zakat Council and district Zakat Council
- Creating new jobs opportunities for the pass outs by dealing with local Industries with the help of Board of Management.

July, 2003 to September 04 Pakistan Atomic Energy Commission Khushab.

Sr.Tech Electrical

- To manage all site area as general shift incharge,
- New electrical equipment installation testing and commissioning i.e. motors up to 150 H.P (DOL Star Delta and Reverses & forward etc).
- Operation & maintenance of existing equipment such as generator(1500 KVA), induction
- Motors control and power circuit of power & lighting load, checking of panels wiring etc.
- Operation & maintenance of underground electrical system such as H.V & L.V cables, Ring main units (3 way 4 way), pad mounted transformers (200 to 750 Kva), induction & synchrouse Motors.
- Wiring installation testing and commissioning of site workshop.
- Wiring installation testing and commissioning of site offices.
- Earthing & floor grid earthing for protection scheme.
- Earthing & floor grid earthing for protection scheme.
- Report writing about daily activity staff management remained under my supervision.

January 2002 to January 2003 WAPDA LESCO Lahore.



Line Superintendent I

- Technical administration of operation & maintenance all 05 no's 11 KV over head feeder's.
- Operation and maintenance of Low Tension distributing system more than five feeders.
- New connection both domestic and industrial (B1, B2, B3) up to 5000 KW.
- Load division & transformers maintenance of (50 KVA to 450 KVA) transformers.
- Follow up duties to control theft of electricity.
- Supervision of Major's complaint handling such as (Feeder Dead Short, feeders break down).
- Designing, laying testing and commissioning of over head 11 KV feeders.
- Store record keeping, bookkeeping and report writing of all activities regarding O & M.
- Meeting with high ups regarding line losses and O & M.
- And all other concerned matters were also remained under my supervision.

Internships

1. One year internship in Wapda (LESCO) 132kv yard & GIS type grid stations as a Trainee Engineer.

1. Over all assistance in Operation and maintenance of grid station.
2. Monitoring of load management of all 12 no's 11 kv feeders.
3. Operation regarding tape changing for regulation of voltage Variation.
4. Making daily reports for official correspondence.
5. Events Management regarding monthly ,quarterly ,six monthly Maintenance.
6. O/C E/F electromechanical(CDG) and digital Siemens, vamps relay Setting for 11 kv panel with coordination of P & I department.

2. Six month internship in Victoria & Sohail Mechanical complex as Trainee Engineer.

1. Overall supervision of installation, testing and commissioning of water Pumps (submersible etc).
2. Design of motor control and power circuit as per requirement i.e. Star Delta ,reverses Forward and DOL for different site as service engineer.
3. Maintenance of all control and power circuit.
4. Over all supervision of factory based electrical installation and maintenance issues.

3. Three month internship in Tetrapak (packages) as Trainee Engineer.

1. Supervision of all electrical activities under the management of incharge electrical in board mill side.
2. Design of motor control and power circuit as per requirement i.e. D.C series/shunt Thyristor control motor induction motors with inverters control and synchronic motors of Different paper and pulp machines.
3. Installation ,testing ,commissioning of new motors was remained under my Supervision.
4. Repair and maintenance of different light load circuit were also under my supervision
5. Report Writing of daily activity.

4. Three month internship in ptcl digital exchange shahdra Lahore as Trainee Engineer.

1. Operation and maintenance of 50 KVA generators.
2. Over all look after of fully automatic digital telephonic exchange made Ericson.
3. Attending the in house based complaints regarding communication
3. report writing of daily activities

Languages	English, Urdu and Punjabi.				
Summary of Qualifications	Examination	Year	Marks Obtained	Division	University / Board
	MBA (HRM)	2007	66%	First	AIQU Islamabad
	B.Tech (HONS) Electrical Power	2005	87%	2 nd Position	UET Lahore
	B.Tech (Pass) Electrical Power	2003	77%	2 nd Position	UET Lahore
	DAE Electrical	1999	69%	First	PBTE Lahore
	Matriculation Science	1995	75%	First	BISE Lahore
Computer Skills	<ul style="list-style-type: none"> • Having good command on M.S Office professional Window X P and Internet Utilities. • Having Short courses of computer. 				
Distinction	<ul style="list-style-type: none"> • Second position in B.Tech (Hons) in UET Lahore • Second position in B.Tech (Pass) in UET Lahore 				
Courses	<ul style="list-style-type: none"> • One month managerial training in STTI TEVTA Lahore. • One week managerial competency training in PITAC Lahore. 				
Running course	<ul style="list-style-type: none"> • Certification of chartered Engineer from City & Gild institute United kingdom (U.K)(online) 				
Hobbies	<ul style="list-style-type: none"> • Books reading on Islam & literature. 				
Reference	<ul style="list-style-type: none"> • Available according to the requirement. 				
Other Information					
Father's Name	Amanat Ali				
Date of Birth	16 March, 1979				
NIC #	35200-1518270-9				
Nationality	Pakistani				

RESUME

HABIB-UR-REHMAN

PERSONAL INFORMATION:

Father's Name: Ghulam Muhammad
Date of Birth: 23-03-1989
CNIC: 35503-0126214-1
Nationality: Pakistani
Domicile: Sheikhupura (Punjab)
Marital Status: Single
Religion: Islam

MAILING ADDRESS

Marrat Roriwala chak no 41 /R-b
Teh.Sangla hill Dist:Nankana Sahib

E-MAIL ADDRESS

Habib_pir@yahoo.com

CONTACT

Cell #: 0334-6205145

OBJECTIVE:

I am looking for an environment. Where I may apply and utilize my knowledge to best of my abilities for development and growth of my professional career on the base of my integrity, honesty and hard working.

KEY SKILLS AND ATTRIBUTES

- Multi-Lingual: , Urdu, Punjabi
- Leadership & supervision ability
- Confident communicator: Highly developed clear & concise presentation skills

EDUCATION AND QUALIFICATIONS

- **2004**
Board of Intermediate & Secondary Education, Lahore
MATRICULATION
- **2007**
Punjab Board Of Technical Education, Lahore
3 year Diploma D.A.E (Electrical) From G c t faisalabad.

COMPUTER SKILLS

- Hardware & Software Repair /-
- Internet
- Adobe Photoshop
- In Page

PROFESSIONAL & WORKING EXPERIENCE:

- I have worked at many kinds of Gen sets
NEQ,OLYMPIAN,POWER TECH,SIEMENS,METS,FG
WILSON,IMPAC and lister petter with DSC operating
module.
- I have good working experience at many kinds of ATS
panels (Ghadder duel PLC,single PLC without PLC,Areena
Tech,Hight Tech,Allied Eng.Duel,Combine Eng.Duel and
Siemens made).

MASOOD TEXTILE MILLS (PVT)LTD

Worked with Masood Textile as a "Trainee Electrician"

Worked from 2 June 2007 to 31 July 2008 Faisalabad.

3G POWER SERVICES (PVT)LTD.

(Mobilink power operation & Maintenance)

Worked with 3GS as a "Electrical Technician"

Worked from 01 Aug 2008 to 04 Dec 2008.

Job Responsibilities are as under:

- Making schedule maintenance of gensets.
- Attend daily complaints in field related with gensets & ATS panels.
- Repairing all ATS & AMF and distribution panels.

RESUME

HIGHT TECH ELECTRIC ENGINEERING & SERVICES. (Warid operation & Maintenance)

Worked with HIGHTECH Eng. & Services as a "Senior Technician" Housing Colony Sheikupura.
From 06 Dec 2008 to 10 Apr 2009.

Job Responsibilities are as under:

- Termination of power cable.
- Installation of components.
- To attend daily complains of site.
- Repairing of breakers and contactors relays.
- Repairing of all kind Gensets modules.
- Maintenance of operating of all Generators.

MOD MECH NGINEERING & SERVICES

Worked With Mod Mech Eng. & services as a "Supervisor"
at Mobilink Power Project

Worked form 13Apr2009 to 31Jan2010 in Jhang Region.

JOB RESPONSIBILITIES ARE AS UNDER:

- Programming of power tech,DSC,NEQ,DKG modules and others.
- Installation of electrical components.
- To attend daily complains in field related with genset and ATS panels.
- Making the AMF panels with relays with operating all safeties of genset without any operating module.

IMPERIAL ELECTRIC COMPANY (PVT) LTD.

Worked With Imperial Electric Co. As a Electrician

Worked form 23may2010 to 31March2011.

Job Responsibilities are as under:

- Tasting of gensets and AMF & ATS panels.
- Making ATS & AMF panels.
- Installation of ATS,AMF,distribution and alarms panels.
- Repairing of breakers,contactors and relays.

PUNJAB INDUSTRIAL ESTATES

(DEVELOPMENT AND MANAGEMENT COMPANY)

Worked With PIEDMC As a Electrician

Worked form 05Apr2011 to till now in Sundar Industrial Estate.

Job Responsibilities are as under:

- Termination of HT & LTpower cables. ✓
- Jointing of HT & LT power cables.
- Switching and operating of HT panels.
- Maintenance of Transformers and VCB panles.
- Making of B1,B2,B3,B4 and temporary meters connections.



Sarfraz Ali

Flat no 27-F Bank Colony
Rasool Park Ichra Appartments,
Ichra
Lahore
Pakistan

E-mail: sarfraz_22@live.com
Phone: +923228671217

OBJECTIVE

A highly enthusiastic graduate accustomed to work under pressure with the ability to lead looking for the right opportunity to learn and grow with a reputed organization

EDUCATION

MS Engineering Management
Superior University Lahore

2015 — 2017

BSc Electrical Engineering
Superior University Lahore

2010 — 2014

FINAL YEAR PROJECT

- 3-phase Solar & Wind Tie Inverter

ACHIEVEMENTS

- Participation in Brand Activation Campaign Of Newspaper "Daily Naibaat" Lahore 2012
- Participation in workshop "Art of Scientific Research Paper Writing" Superior University Lahore 2014
- Study tour to "Ghazi Barotha Hydropower Plant KPK" 2014
- Study tour to "PTCL Staff College KPK" 2014

WORK EXPERIENCE

Pak Electron Limited, Lahore
Internship

August 2015 — September 2015

Coca Cola Beverages Pakistan Ltd Ryk
Internship

January 2015 — February 2015

SKILLS & INTERESTS

MS Office, MS Project, MS Visio, C++, Music, Painting, Research & Development, Internet Browsing

REFERENCES

Will be provided upon request

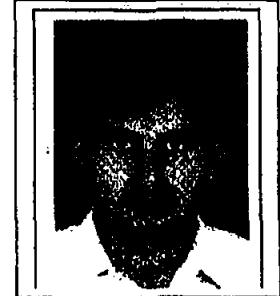
SARFRAZ

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Muhammad Khan's Resume

Personal Information

Name Muhammad Khan
Fathers' Name Muhammad Ramzan
National ID Card Number 32102-1473730-1
Date of Birth 19th December, 1987
Postal Address House # E-38 Housing Colony,
D G Khan Cement Company D.G.Khan. (Pakistan)
Domicile Mianwali, Punjab.
Nationality Pakistani
Religion Islam
Marital Status Married
Mobile +92343-5009839,+92333-8589266



Summary

Over Five years experience.

Experience

	Position	Company	From	To
1.	Supervisor (Electrical)	Siemens Pakistan Engineering Co Ltd,	April,2009	Till date
Job Description <ul style="list-style-type: none">• Project Mangla Dam Rising Mirpur, Azad Kashmir.• Client WAPDA• Consultant MJV (Mangla Joint Venture) Responsibilities <ol style="list-style-type: none">1. Underground HT & LT Distribution Systems.2. Over Head Works (11 KV and .4 KV Distribution Systems).3. Over Head Hardware Installation, Transformers Installation (50,100,200,400,630 & 1000KVA).4. Distribution Box Installation.5. Maintenance Box Installation.6. Installation of Load Break Switch Boxes.7. Glanding of Armored & PVC cables.8. Termination of Distribution Box, Control Panel, Load Break Switch Box9. Cable Joint of armored & PVC Cables.10. Earthing Work.11. Lighting Work.12. Lighting Control Panel Installation.13. Light Pole Erection.14. IPC (Intern Payment Certificate) Work.15. Request making.16. Dealing with Consultant.				

	Position	Company	From	To
2.	Electrician	D G Cement Pvt. Ltd. Pakistan	Oct,2007	March,2009

Job Description

- Project Electrification on Cement Mill # 3.

Responsibilities

1. HT Panel Installation.
2. Distribution Box Installation.
3. Maintenance Box Installation.
4. Glanding of Armored & PVC cables.
5. Termination of Distribution Box.
6. Cable Joint of armored Cable and PVC Cables.
7. Motor Connection.
8. Earthing.
9. Lighting Works.
10. Lighting Control Panel Installation.
11. SD And SA Box Installation.
12. Cable Tray Installation.
13. Cable Laying (Power & Control Cables).
14. Erection of Lighting Poles.
15. Fuse Welding.
16. Control Termination.
17. Installation of Rope Switch.

Academic

	Degree	Institution	Year	Marks Obtained %	Division
1.	DAE	Punjab Board of Technical Education Lahore.	2007	77%	1 st
2.	Matriculation	BISE, Dera Ghazi Khan.	2004	77%	1 st

Skills

	Skill	Last Used	Year of Experience
1.	Microsoft Office	Currently using	4
2.	Typing	Currently using	4
3.	Photoshop Designing	Currently using	4
4.	Email & Internet	Currently using	4
5.	AutoCAD	Currently using	4

Language

	Language	Proficiency
1.	English	Intermediate
2.	Urdu	Expert
3.	Saraiki	Expert

GHAZANFAR ALI

Cell # 0332-6090294

E-mail: ghazanfar5912@yahoo.com

Postal Add: H# 537-Cnear Hadria Mosque gulgasht colonyMultan

OBJECTIVE

Seeking a challenging and rewarding position in a dynamic organization where my qualification and work experience can be effectively utilized.

EXPERIENCE

- Oct 2009 to Apr 2013 with Engro Foods Pvt Ltd as a EST(Engineering services Technician).
- May 2013 to April 2016with Nestle Pakistan Limited as a FMS (Field Maintenance Staff).

PERSONAL DATA

Father Name: Syed Ashraf Abbas Naqvi

Date Of Birth: 23-05-1986

Religion: Islam

CNIC # 36302-2813901-9

Domicile: Multan(Punjab)

Marital Status: Married

QUALIFICATION

<u>DEGREE</u>	<u>YEAR</u>	<u>DIVISION</u>	<u>BOARD</u>
B.TECH(ELT)	2015	3.5GP	GLOBAL INSTITUTE LAHORE
D.A.E(ELECTRICAL)	2009	1ST	KARACHI BOARD
MATRIC	2003	2 ND	B.I.S.E MULTAN

Reference

Will be provided on Demand

SAMP
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IHTISHAM ALI

Contact No. +92-0345-7973519

0345-5848579

PERSONAL INFORMATION

⇒ Father's Name : Liaqat Ali
⇒ Domicile : Toba Tek Singh (Punjab)
⇒ Nationality : Pakistani
⇒ Religion : Islam
⇒ Date of Birth : 09-04-1993
⇒ CNIC : 33303-8013517-1
⇒ Address : Chak No. 519 GB, P/o Same,
Tehsil & District Toba Tek Singh (Punjab)

CARRIER OBJECTIVE

- ⇒ To secure a position that offer challenge, growth and an opportunity to assume responsibility and exercise independent judgment.

QUALIFICATIONS

CERTIFICATE/ DEGREE	SUBJECT	MARKS	PASSING YEAR	BOARD/UNIVERSITY
Matriculation	Science	634/1050	2009	BISE Faisalabad
D.A.E	Electronics	2241/3350	2013	PBTE Lahore

EXPERIENCE

- Sub Engo. *Ali*
⇒ Worked as a "Technician" at Arshman Medical Traders T.T. Singh since 05-03-2013 to 31-03-2014. *25-06-14 Ali*
⇒ Worked as a "Helper" at Electro motion Lahore for 6 MONTHS. *01-01-14 Ali*

COMPUTER SKILLS

- ⇒ MS Office
⇒ Internet + E-Mail
⇒ Basic knowledge of Computer

LANGUAGE

- ⇒ English
⇒ Urdu

REFERENCE

- ⇒ Reference will be furnished on demand.

RECEIVED
45/05/14

Ali

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Sohail Anwar
Construction Manager

email: sohailanwar554@gmail.com
cnic: 3130331366787
cell: 9203337440071
Disabled: No

Objective

To move up the ranks in an institution of reputation and excellence wherein there is immense room for personal and career development.

Work Experience

Construction Manager at MEP Solutions

06-Aug-2017 - Present

Uploaded Experience

Project Execution and Management, Supervision of Overall MEP Works, Execution of Industrial, Commercial Buildings. Verifications of Sub-Contractors Bills. Execution of Electrical Allied Systems(FAT), Estimating and Costing .Laying HT/LT underground cables .Installation HT/LT Panels, Magering test. On Load and Off Load Earthling test, Installation Commissioning BTB, Excellent Communication Skill, Installation Electrical Lighting Poles.

Sr. Executive at Huawei Technologies Pakistan (Pvt) Ltd

01-Dec-2015 - 31-Jan-2017

Uploaded Experience

Installation and commissioning of Huawei BTS 3012, 3012AE, 3900, 3900A Installation of ACBS systems and fire alarms boxes. Installation and Commissioning of ATS panels and MV Panels. Installation and testing of power equipment Eltek and Emerson and Surge Protection Device (SPD).

Sr. Executive (AN Ops) at Pak Telecom Mobile Limited (Ufone GSM)

11-Sep-2006 - 30-Nov-2015

Uploaded Experience

Initiate Power Requirement Expansions and prepare RFPs. Scope of Work, Technical Specifications of Products Installation and Commissioning of (Gen Sets) Fire Suppression System, Batteries, UPS, Rectifier Systems, grounding and testing etc. Design, Cultivate & Implement SOPs, Processes & Framework for projects. both in power and electrical equipment with field team. Regular performance monitoring of plans and process to ensure the maximum efficiency.

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✓ **Electrical Engineer at Siemens Pakistan Engineering Co. Ltd**

01-Jul-2005 - 30-Jun-2006

Uploaded Experience

• Study of electrical design, specification and technical drawings. • Part of my responsibilities to check and review the plans and specifications for the adequate installation of system and quality implementation. • Coordinate with the procurement department to ensure material delivery in time and as per required specification standard quality. • Electrical low voltage devices installation testing and commissioning. • Installation of breaker, MCB, MCCB, DBs, SMDP, ACB, VCB, GENSETS. • Installation of ATS Panels and laying cables according to the load. • Monitoring and supervision of fire alarms. • Monitoring and supervision of structure cabling for Card Access, CCTV cameras & Voice/Data Outlets. • Monitoring and Supervision of high and Low voltage system works. • Monitoring and supervision of Lighting and power works. • Prepare the daily, weekly and monthly progress report. • Attending meetings with clients to monitor project quality and progress BMS Installation commissioning and operation.

✓ **Electrical Engineer at Ibrahim Fibers Limited**

28-Oct-2003 to 30-Jul-2005

Uploaded Experience

1.5
• Erection of plants and installing power cables. • Monitoring and supervision of cable laying in Trays & underground Trenches. • Programming of PLCs S7 Module. • Monitoring and Supervision of Caterpillar Generator • Supervision and monitoring of inverter systems and UPS • Supervision and monitoring HT/LT systems • Management of electrical department • Monitoring and supervision of cable tray works. • Installation and testing ELCB (Earth Leakage Circuit Breaker) • Installation and Supervision of VFD at plant. • Monitoring and Supervision of HVAC system.

✓ **Line Superintendent, Grade-I at Pakistan Water and Power Development Authority**

01-Jun-2002 - 12-Oct-2002

Uploaded Experience

• Installation of Transformers, LT and HT poles, Installation and commissioning capacitor with power Line, Installation of Energy Meters and MDI Meters, Monitor and supervision of Lighting system, Installation and testing CT/PT, Checking of electrical certificates according to the load.

Education

✓ **Matric**

(Secondary School Certificate)

Board of Intermediate and Secondary Education, Bahawalpur

01-Apr-1989 - 31-Jul-1991

Science

Achieved Percentage: 46.11%

Uploaded Degree

✓ **DAE (Diploma of Associate Engineering)**

(Higher Secondary School Certificate)

Sindh Board of Technical Education

01-Jan-1992 - 04-Aug-1996

Electrical

Achieved Percentage: 82.57%

Uploaded Degree

✓ **Bsc (Electrical Engineering)**

(Masters Bachelors (Hons))

University of Engineering & Technology, Lahore

01-Sep-1997 - 22-Dec-2001

Electrical

Achieved Percentage: 54.56%

Uploaded Degree

Training(s)

GSM BSS Training

Huawei University China

18-Dec-2006 - 29-Dec-2006

Muhammad Hashim Amin

BS Electrical Engineering

Address: House no 10, E-Block MUHAFIZ TOWN, LAHORE, PAKISTAN.
Mobile: 0092-321-3649199
Email: hashim7a@gmail.com



Professional Objective

To pursue a challenging career and be part of a progressive Organization that gives scope to enhance my knowledge, skills and to reach the pinnacle in the computing and research field with sheer determination, dedication and hard work.

Core Areas

Electrical Engineering

Major Courses

- Electric Circuits Analysis
- Electronics
- Computer Programming
- Computer Logic Design
- Electric Machines
- Electro mechanical Systems
- Advance Digital Logic Design
- Signals and Systems
- Digital Signal Processing
- Analogue and digital communication
- Microprocessor Systems and Interfacing
- Feedback Control Systems
- Power electronics
- Industrial automation and process control
- Database management system
- Engineering ethics, management and economics.

Software & Languages

- Proteus
- Logic Works
- visual studio
- MATLAB
- Keil
- XILINX
- AUTO CAD
- Step 7 (Siemens PLC)
- Lab View
- C++, C#
- WinProLadder (Fatek PLC)
- Ladder logic

M. Hashim Amin

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	Degree	Board/University
Academic Qualification	BS (Electrical Engineering) (2010-2015)	National university of computers and emerging sciences (FAST-NU) Lahore
	F.Sc (Pre Engg) (2007-2009)	Board of Intermediate & Secondary Education Lahore
	Matric (Science) (2006)	Board of Intermediate & Secondary Education Lahore
Semester Projects	<ul style="list-style-type: none"> Designed and implemented an elevator on ladder logic in industrial process control lab (step 7) Designed and implemented a keypad and timer on 8052 microcontroller Digital library in C++ Digital calendar for 50 years in C++ Designed a battery charger (0-30V) Designed a website (Flight Inquiry System) in database management system 	
Final Year Project	<p>INTELLIGENT-TRAFFIC LIGHT SYSTEM USING PLC</p> <p>Intelligent traffic light system using PLC and Image Processing in C++ OpenCV. The system is capable of detecting presence and number of vehicles on road and react accordingly. After counting number of vehicles the traffic signal will be green for sufficient time to pass the detected vehicles.</p>	
Skills	Communication Skills	Good written and Oral communication skills in both English and Urdu.
	Interpersonal Skills	Having good sense about code of conduct with different hierarchy of people.
	Problem Solving Skills	Working in a team guides me to find solutions to problems in a calm and efficient manner.

M. Hashim Amin

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PUNJAB INDUSTRIAL ESTATES DEVELOPMENT AND MANAGEMENT COMPANY

A Company setup under Section 42 of the Companies Ordinance, 1984 (now Companies Act, 2017)



October 24, 2022

Undertaking Use of Sub-Contractors

We hereby undertake that Punjab Industrial Estate Development and Management Company (PIEDMC) does not use the services of any sub-contractors and that this information holds true to the best of our knowledge.

Chief Executive Officer



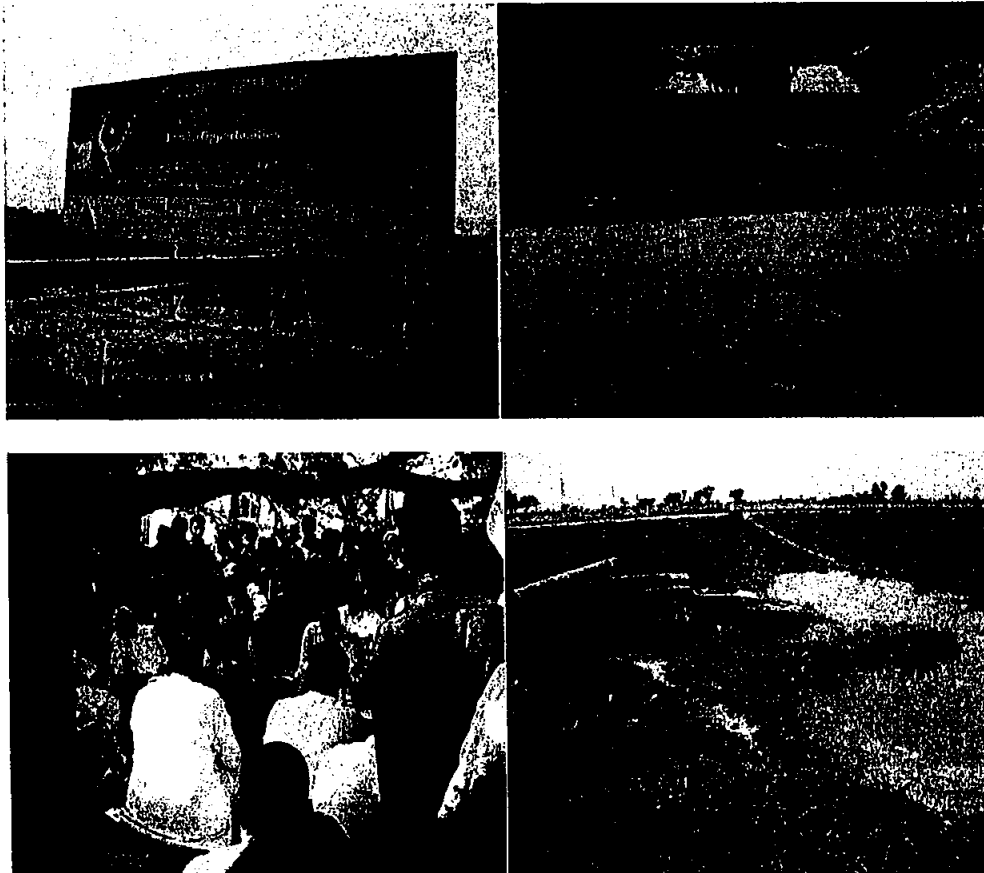
**TECHNICAL AND FINANCIAL PROPOSAL
IN REASONABLE DETAIL FOR THE
OPERATION, MAINTENANCE, PLANNING
& DEVELOPMENT OF THE FACILITY AT
RIE**



Punjab Industrial Estates

Development and Management Company
Owned by the Government of The Punjab

**ENVIRONMENTAL IMPACT ASSESSMENT (EIA)
OF QUAID-E-AZAM APPAREL PARK (QAAP), PUNJAB
AT M-2 DISTRICT SHEIKHUPURA**



EIA REPORT

MAY 2014



**NATIONAL ENGINEERING SERVICES PAKISTAN (PVT.) LIMITED
ENVIRONMENTAL AND PUBLIC HEALTH ENGINEERING DIVISION
1-C, BLOCK-N, MODEL TOWN EXTENSION LAHORE, PAKISTAN**

SAMD
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Executive Summary

The Government of Punjab has established Punjab Industrial Estates Development and Management Company (PIEDMC) to achieve orderly, planned and rapid industrialization in Punjab by developing new industrial estates and managing the existing industrial estates in a dynamic and innovative manner with a view to provide turnkey solutions to the prospective entrepreneurs thereby generating economic activity and creating mass employment opportunities. The PIEDMC intends to establish "Quaid-e-Azam Apparel Park" (QAAP) on 1,565 acres area in District Sheikhpura at 38 Km of Lahore-Islamabad Motorway (M-2). The main objective of the proposed project is to develop an integrated industrial Apparel Park with the objective to create a platform for apparel industries, create mass employment opportunities, skill development of local population and to best utilize the resources to boost the country's economy.

This Environmental Impact Assessment (EIA) Study has been conducted for Quaid-e-Azam Apparel Park, Sheikhpura, as a mandatory requirement of Punjab Environmental Protection Act (PEPA), 2012 as an amendment of Pakistan Environmental Protection Act, 1997. Section 12 (1) of this Act states that:

"No proponent of a Project shall commence construction or operation unless he has filed with the Provincial Agency an initial environmental examination or, where the Project is likely to cause an adverse environmental effect, an environmental impact assessment, and has obtained from the Provincial Agency approval in respect thereof."

National Engineering Services Pakistan (Pvt.) Ltd. (NESPAK) is providing services to carry out detailed Environmental Assessment (EIA) of the propose Apparel Park.

The establishment of QAAP would not only provide a collective platform for the segregated garment industry but would also become a training and development hub for the local population. The proper zoning in the Garment Industry would lead to best utilization of resources where similar units can be collectively located to increase output. Automation in garment units such as cutting, sewing/stitching and packaging

will not only enhance production but also minimize rejection due to non-compliance with the approved standards. Implementation of the project is envisaged having the following objectives:

- To make available structured platform to set up apparel park.
- To provide state-of-the-art infrastructure facilities including roads, electrical networks, water supply system, wastewater collection and drainage system including Combined Effluent Treatment Plant.
- To ensure availability of skilled manpower.
- To capitalize strength of each region.
- To secure comparative environment by providing green areas, parks.
- To provide Social compliance facilities including schools/ hospitals and residential facilities.
- To comply with health safety and environmental regulations.

The scope of the EIA Study includes environmental assessment of the project including collection and securitization of data related to physical, biological and socio-economic environment, assessment of impacts which may be caused by the project activities and mitigation measures for the abatement of potential environmental impacts along with the estimated budgeted cost of mitigation.

The study has been conducted in accordance with Environmental Protection Agency (EPA), Government of Pakistan (GOP) Guidelines. The study is based on both primary and secondary data and information. Discussions were held with stakeholders including community representatives.

The methodology adopted to conduct this study was as follows:

- Meetings and discussions were held among the members of the EIA consulting team, design engineers and proponent. This activity was aimed at achieving a common ground of understanding of various issues of the study.
- Planning was carried out to assess data requirements and their sources; time schedules and responsibilities for their collection; logistics and facilitation needs for the execution of the data acquisition plan.
- Primary and secondary data were gathered through observations during the field survey, environmental monitoring in the field, concerned departments

and published materials to establish baseline profile for physical, biological and socio-economic environmental conditions.

- The impacts of the project on the physical, biological and socio-economic environment prevalent in the project area were visualized at the design, construction and operational phases.
- The adequate mitigation measures and implementation mechanisms were proposed so that the proponent could incorporate them beforehand in the design phase.

The Government of Pakistan (GOP) has promulgated laws/acts, regulations and standards for the protection, conservation, rehabilitation and improvement of the environment. PEPA-2012 is the apex law for mandatory EIA before project construction. Other relevant laws have also been discussed briefly in the report. In addition, National Environmental Quality Standards (NEQS) are provided for the noise, ambient air, municipal/industrial wastewater discharges and drinking water quality.

Construction of the proposed Apparel Park will help to utilize the potential of physical and manpower resources for the local apparel industry and gain maximum benefits. In addition to increase in Pakistani exports, a regional uplift in the economy, livelihood and lifestyles is anticipated due to creation of a large number of direct and indirect job opportunities. There will be control over environmental performance of the individual industrial units through an independent administration and byelaws and policies may be enforced to support motives such as treatment of industrial effluents, waste minimization and reuse, safe disposal of hazardous wastes, control over gaseous emissions and workplace safety.

The project components include development of the basic infrastructure for the Apparel Park including roads, electrical works, water supply system, sewerage system, natural gas supply etc. As large workforce will be needed, therefore, separate residential area/hostels will also be provided. Project will also include export processing zones (EPZs), truck parking areas, commercial and public buildings etc.

[Handwritten signature]
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The existing environment in and around the project area has been studied with respect to the physical, biological and socio-economic conditions.

The baseline conditions were studied with respect to physical, biological and socio-economic environment. The physical environment includes topography, geology and soils, climate, hydrology and drainage, land use, surface water quality, ground water quality, ambient air quality, noise levels, and seismicity.

The climate of the project area is hot in summer and moderate in winter. The coldest month is December and the hottest is June. According to the Seismic Zoning Map (prepared by Pakistan Meteorological Department), the proposed Project falls in Zone-2 A which corresponds to peak horizontal ground acceleration of 0.08 to 0.16g (where 'g' is the acceleration due to gravity).

Preliminary findings of air quality revealed that the conventional pollutants like CO, SO_x and NO_x are well within the prescribe limits of NEQS and WHO guidelines. Similarly, the noise levels and groundwater quality in the ambient air also well within the permissible limits of relevant NEQS. The wastewater analysis of the surface water bodies indicates a low to moderate level pollution.

The biological environment of the Project Area includes flora and fauna. The floral species found in the Project Area include trees, bushes, shrubs, herbs, forbs, agricultural crops, vegetables, fruit orchards, ornamental plants, and other rank growths. The faunal species noticed/reported in the Project Area include mammals (dogs, cats etc.), mongoose, squirrel, amphibians (frog, toad, turtle etc.), reptiles (small and medium sized lizards, snakes etc.), house sparrows, house crow, etc. However, no endangered species, agriculture and horticulture are found in the Project Area.

The aspects covered under socio-economic environment of the Project Area include population and communities, population size, growth and distribution, mother tongue, occupations, health care facilities, educational facilities, physical and cultural heritage (shrine, mosque, graveyard), recreational sites, respondent's age group, marital status, family system etc.

The proposed project will have both positive and negative impacts during the construction and operational phases, for which proper mitigation measures are necessary. During the field survey, significant efforts were made to identify the main social, cultural and environmental issues related to the project. Various government departments and agencies were also contacted for obtaining salient information along with area resident/ stakeholders. Most of the perceived impacts are during construction phase. Following is the list of main concerns identified in the study:

- Land Acquisition and Resettlement
- Disturbance to the public movement during construction;
- Excavation and Vibrations due to construction machinery may affect the nearby structures during construction.
- Air and noise pollution due to the operating of construction machinery during construction phase of the project;
- Solid waste generation during construction and operational phase;
- Accidental leaks/spills of hazardous chemicals from construction activities and machinery;
- Health and safety issues of the workers;
- Contamination of water body by construction activities; and
- Relocation of public utilities.

On the positive side, the proposed project is expected to improve economic condition of the country. The project will generate new opportunities for skilled/unskilled manpower. Recommended mitigation measures to contain potential adverse impacts are described in the Environmental Management and Monitoring Plan (EMMP) shall be strictly enforced during the implementation of the proposed Project.



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SECTION - 1 INTRODUCTION

1.1 GENERAL

The Government of Punjab has established Punjab Industrial Estates Development and Management Company (PIEDMC) to achieve orderly, planned and rapid industrialization in Punjab by developing new industrial estates and managing the existing industrial estates in a dynamic and innovative manner with a view to provide turnkey solutions to the prospective entrepreneurs thereby generating economic activity and creating mass employment opportunities. The PIEDMC intends to establish "Quaid-e-Azam Apparel Park" on 1,565 acres area in District Sheikhupura at 38 Km of Lahore-Islamabad Motorway (M-2). The main objective of the proposed project is to develop an integrated industrial Apparel Park with the objective to create a platform for apparel industries, create mass employment opportunities, skill development of local population and to best utilize the resources to boost the country's economy.

National Engineering Services Pakistan (Pvt.) Ltd. (NESPAK) provide services to carry out detailed Environmental Assessment (EIA) of the propose Apparel Park.

1.2 BACKGROUND AND NEED OF PROJECT

1.2.1 History of Garment Sector in Pakistan

The readymade garment industry started in 1970's in Pakistan. With the passage of time and industrialization, this industry expanded very rapidly. The majority of the units making cotton fashion garments are medium and small-size in terms of machines, workers and output, with a few notable exceptions scattered throughout Pakistan.

The Pakistani manufacturers, struggling with energy shortages and law and order situation, could only uphold their existing market share. Besides adverse business conditions, Pakistan's concentration in cotton apparel market was another factor that hindered in increasing the market share. Due to sharp increase in cotton prices, buyers were more attracted towards non-cotton apparel (including man-made fiber, wool, etc.). However, Pakistan's exports of non-cotton apparel are almost minimal due to a protected synthetic fiber market over the years and inability of textile manufacturers to equip for synthetic textile processing.

The home textile market in world remained under pressure in general due to weaker than expected recovery in USA and European Union (EU) economies and surge in prices, the

impact on Pakistan's export was more pronounced. Production of garments by units depends on export orders directly or indirectly. These orders have somewhat risen in terms of value, but they have fluctuated widely in terms of quantity. Generally export earnings from garments have increased tremendously. Exports increased from 28 million dozens of various types of readymade garments worth US \$ 1.30 billion in 2009-10 to 36 million dozens worth US\$ 1.77 billion in 2010-11, thus showing an increase of 38% in terms of value.

Pakistan exports garments to a number of countries. Major buyers of readymade garments during 2010-11 were USA, Germany, UK, Spain, France, Italy and Netherlands.

1.2.2 Need of the Project

Pakistan on December 12, 2013 succeeded to secure the long awaited duty-free access to the European markets for four years, by winning Generalized Schemes of Preferences (GSP) Plus status with an impressive count of votes. The GSP Plus status will allow almost 20 percent of Pakistani exports to enter the European Market at zero tariff and 70 percent at preferential rates for four years till 2017. Under the scheme, Pakistan can export most of its Textile and Garment products to 27 European nations at concessionary duty rates or absolutely duty free, making Pakistani products cheaper for European importers.

As a result of the GSP plus status, the Textile and Garment Industry alone is expected to earn profits up to one trillion rupees per year. Garment exports have been declining in Pakistan, as manufacturers and exporters were finding it hard to compete with Sri Lanka and Bangladesh who already had duty-free access to European markets. This special status will provide to Pakistan duty free or preferential duty rate access on 3,500 products to European markets where currently Pakistani Garment exports to the European draw an 11% duty. Pakistan can now export textile goods to European member countries till 2017 without having to pay duties, adding that it would increase exports worth \$1 billion, and employment opportunities to about one million people of the country.

An apparel park is an area appropriated and planned estate for the purpose of industrial development. An apparel park would be a specialty industrial area wherein different garment units such as cutting, bleaching, swing/stitching and packaging involved in garment industry would work collectively to minimize wastages and increase production.

The establishment of such an apparel park would not only provide a collective platform for the segregated garment industry but would also become a training and development hub for the local population. The proper zoning in the Garment Industry would lead to best utilization of resources where similar units can be collectively located to increase output. Automation in garment units such as cutting, sewing/stitching and packaging will not only enhance production but also minimize rejection due to noncompliance with the approved standards. The export potential can be enhanced due to higher quality and enhanced production.

1.3 PROJECT OBJECTIVES

The main objectives of this project are:

- To make available structured platform to set up apparel park.
- To provide state-of-the-art infrastructure facilities including roads, electrical networks, water supply system, wastewater collection and drainage system including Combined Effluent Treatment Plant.
- To ensure availability of skilled manpower.
- To capitalize strength of each region.
- To secure comparative environment by providing green areas, parks.
- To provide Social compliance facilities including schools/ hospitals and residential facilities.
- To comply with health safety and environmental regulations.

1.4 SCOPE OF STUDY

The scope of the EIA Study aims at collecting and scrutinizing of data related to physical, biological and socio-economic environment of the project area and to prepare the baseline environmental profile. It also aims at the identification, prediction and evaluation of the possible environmental impacts of the proposed project on its immediate surroundings on both short and long-term basis. Based on the nature and levels of those impacts, appropriate mitigation measures have been incorporated in this EIA Report.

1.5 STUDY OBJECTIVES

The overall objective of EIA is to assess the environmental impacts arising from the project. The specific objectives of the EIA Study for construction of Quaid-e-Azam Apparel Park, Sheikhpura include the following:

- Collection and scrutinization of data related to physical, biological and socio-

economic environments of the project area and to prepare baseline environmental profile;

- Identification, prediction and evaluation of environmental impacts of the proposed Project;
- Implementation plan of mitigation measures to minimize the adverse impacts; and
- Preparation of an Environmental Management and Monitoring Plan.

1.6 NEED FOR EIA STUDY OF THE PROPOSED PROJECT

EIA is mandatory according to the Punjab Environmental Protection Act (PEPA-2012) amended. Section 12 (1) of the PEPA-2012 (see **Annexure-I**) which states that:

"No proponent of a project shall commence construction or operation unless he has filed with the Provincial Agency an initial environmental examination or, where the project is likely to cause an adverse environmental effect, an environmental impact assessment, and has obtained from the Provincial Agency approval in respect thereof."

According to the Pakistan Environmental Protection Agency (Review of IEE and EIA) Regulations 2000, the proposed project falls under category J (other projects) of Schedule II, which states that any other project likely to cause an adverse environmental impact, require EIA before commencement of construction.

1.7 THE PROPONENT AND CONSULTANT

The proponent of the project is Punjab Industrial Estates Development and Management Company (PIEDMC) while the Consultant is NESPAK; the details are given as under:

a) Proponent Contact Address

Punjab Industrial Estates Development and Management Company (PIEDMC)
Head Office PIEDMC, Commercial Area (North) Sundar Industrial Estate,
Sundar-Raiwind Road, Lahore
Tel: 042-35297203-6

b) Consultant Contact Address

National Engineering Services Pakistan Private Limited (NESPAK)
EPHE Division, NESPAK House
1-C, Block – N, Model Town Extension, Lahore
Tel: 042-99090000

A multidisciplinary team was formulated to conduct the study. The team comprises the following professionals.

Muhammad Zubair	:	Project Advisor/ Quality Expert
Kashif Bashir	:	Group Leader
Makhdum Ali	:	Ecologist
Saeed Hussain	:	Senior Sociologist
Syeda Mudassara Gillani	:	Senior Environmentalist
Zahida Manzoor	:	Sociologist
Shehnaila Hanif	:	Environmentalist
Komal Hanif Goraya	:	Environmentalist
Ali Mehtab	:	Environmentalist
Shahid Anwar Bajwa	:	Social Surveyor

1.9.1 Study Approach

The study has been conducted in accordance with Environmental Protection Agency (EPA), Government of Pakistan (GOP) Guidelines, 2000. The study is based on both primary and secondary data and information. Discussions were held with stakeholders including government officials, community representatives and general public. The main purpose of this approach was to obtain a fair impression on the people's perceptions of the project and its environmental impacts.

The following methodology was adopted for carrying out the EIA study of the proposed Project:

Meetings and discussions were held among the members of the EIA Consulting Team. This activity was aimed at achieving a common ground of understanding of various issues of the study.

Subsequent to the concept clarification and understanding obtained in the preceding step, a detailed data acquisition plan was developed for the internal use of the EIA Consulting Team. The plan included identification of specific data requirements and their sources; determined time schedules and responsibilities for their collection; and indicated the logistics and other supporting needs for the execution of the data acquisition plan.

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c) Data Collection

In this step, primary and secondary data were collected through field observations, environmental monitoring in the field, concerned departments and published materials to establish baseline profile for physical, biological and socio-economic environmental conditions.

- Site Reconnaissance
- Analysis of Maps and Plans
- Literature Review
- Desk Research
- Public Consultations
- Field Observations & Studies
- Laboratory Analyses

Physical Environment

Information was gathered on the existing physical environment, particularly as related to geology, topography, soils, hydrology and drainage, water quality, air quality and noise.

Geology, Topography, Soils

A review was conducted of relevant literature on the geology, topography and soils in the Project Area.

Hydrology and Drainage

A literature review was conducted to identify the components of the hydrological cycle that are likely to impact on the project and the possible impacts that the project could have on the hydrologic regime. Field assessments included a determination and verification of all the existing water bodies, assessment of drainage issues, interviews with local community members, and round-table discussions with stakeholders.

Air Quality

Ambient air quality measurements are essential to provide a description of the existing conditions, to provide a baseline against which changes can be measured and to assist in the determination of potential impacts of the proposed construction on air quality conditions. Ambient air quality was continuously monitored for Carbon Monoxide (CO), Sulphur Dioxide (SO₂), Nitrogen Dioxide (NO₂), Particulate Matter (PM₁₀), for 24 hours. CO was analyzed by Test 317-3 CO Analyzer, While SO₂ and NO₂ were analyzed

according to Standard Operating Procedures (SOP) based on recognized method ISO 6767 and method ISO 6768 of USEPA respectively.

Noise

Noise level readings were monitored at three sampling points for 24 hours with the interval of one second and hourly average data was reported. Sound level measurements were taken with the help of Digital sound meter (TES 1350A), a calibrated instrument.

Water Quality

The objective of the water quality monitoring was to determine water quality situation before construction. It has been observed that the surface water and air quality are the most important environmental variables to be affected in the construction project. The extent of surface water and groundwater contamination in the project area was assessed based on the test results of chemical and microbiological parameters for surface and groundwater. Laboratory analyses were performed in SUPARCO laboratory according to SOP based on recognized methods of ASTM, USEPA, or APHA methods. Table 1.1 shows the standard analytical methods and instrument used for analysis of water quality parameters.

Table 1.1: Standard Analytical Methods for Analysis of Water Quality Parameters

Sr. No.	Parameter	Standard Method	Instrument Used
1	Temperature	APHA 2550 B	Digital Thermometer, USA
2	pH	APHA D1293-95	Hach pH meter, USA
3	Color	APHA 8025	Hach Spectrometer DR/2000, USA
4	COD	APHA 5220 C (1992)	Hach COD Reactor, USA
5	TSS	APHA 2540 D	Hach Conductivity meter, USA
6	Oil & Grease	APHA 5520 (1995)	Hach Conductivity meter, USA
7	Chloride	USEPA 1665	Hach Spectrometer DR/2000
8	Fluoride	USEPA 346.1	Hach Spectrometer DR/2000
9	Sulphate	APHA 4500 SO ₄ ²⁻ E (1995)	Hach Spectrometer DR/2000
10	Sulfide	USEPA 376.2	Hach Spectrometer DR/2000
11	Ammonia	Hach Method 8038	Hach Spectrometer DR/2000
12	Cadmium	USEPA 3500 cd-D	Hach Spectrometer DR/2000
13	Chromium	USEPA 3500 cR-D	Hach Spectrometer DR/2000

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Sr. No.	Parameter	Standard Method	Instrument Used
14	Copper	USEPA 3390 e	Hach Spectrometer DR/2000
15	Lead	Atomic Absorption	GBC-Atomic Absorption, Australia
16	Nickel	USEPA 3500 Ni-D	Hach Spectrometer DR/2000
17	Silver	USEPA 3500 Ni-D	Hach Spectrometer DR/2000
18	Zinc	-----	GBC-Atomic Absorption, Australia
19	Arsenic	USEPA 3500 As	Hach Spectrometer DR/2000
20	Barium	-----	Hach Spectrometer DR/2000
21	Iron	APHA 3500 Fe	Hach Spectrometer DR/2000, USA
22	Manganese	USEPA 34193	Hach Spectrometer DR/2000, USA
23	Potassium	-----	Microprocessor Flame photometer 1381, ESICO
24	Sodium	-----	Microprocessor Flame photometer 1381
25	Calcium	USEPA 130.2	Microprocessor Flame photometer 1381
26	Magnesium	USEPA 130.2	Hach Spectrometer DR/2000
27	Turbidity	USEPA 275	Hach Spectrometer DR/2000

Biological Environment

The status of the flora and fauna of the study area were determined by ecological survey, a review of literature relevant to the area, and an assessment of terrestrial environments.

Flora

The vegetative communities were identified and classified into community types. Identification was carried out of dominant tree species, assessment of stage of growth (mature or sapling) and assessment of canopy cover.

Fauna

Information on fauna was gathered from existing literature on reported species as well as observations in the field.

Socio-Cultural Environment

The consultants utilized a combination of desk research, field investigations, census data, structured interviews, maps, reports to generate the data required for description of the existing social environment and assessment of the potential impact of the construction of the proposed project. Data was gathered on the following aspects of the social environment:

- Land use and Municipal Status
- Traffic, Transportation and Access Roads
- Demographics
- Livelihoods
- Poverty
- Education
- Health
- Social Setup
- Community Facilities
- Solid Waste Management
- Proposed Developments
- Recreational Activities
- Archaeological and Cultural Heritage

d) Identification and Evaluation of Environmental Impacts

The impacts of the project on the physical, biological and socio-economic environment prevalent in the Project Area were visualized at the design, construction and operational phases.

e) Mitigation Measures and Implementation Arrangements

The adequate mitigation measures and implementation mechanisms were proposed so that the Proponent could incorporate them beforehand in the design phase.

1.7 STRUCTURE OF THE REPORT

Section 1 “Introduction” briefly presents the project background, objectives, methodology and need of the EIA study.

Section 2 “Policy, Legal and Administrative Framework” comprises policy guidelines, statutory obligations and roles of institutions concerning EIA study of the proposed Project.

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Section 3 “Description of the Project” furnishes information about the location of the proposed Project, cost and size of the project, its major components and alternatives considered for the proposed project to select at the preferred alternative for detailed environmental assessment.

Section 4 “Environmental Baseline Profile” establishes baseline conditions for physical, biological and socio-economic conditions prevalent in the project area.

Section 5 “Public Consultation” identifies the main stakeholders and their concerns raised through scoping sessions, and deals with the measures to mitigate the social impacts.

Section 6 “Anticipated Environmental Impacts and Mitigation Measures” identifies, predicts and evaluates impacts of the project activities during the construction and operation stages and deals with the measures (including mitigation cost) proposed to mitigate potential environmental impacts of the proposed project.

Section 7 “Environmental Management and Monitoring Plan” outlines institutional arrangements for the implementation of the proposed mitigation measures, training needs of the staff for implementation of the mitigation measures, monitoring requirements, monitoring cost etc.

SECTION – 2

POLICY, LEGAL AND ADMINISTRATIVE FRAMEWORK

2.0 General

This section deals with the relevant policies, legal and administrative frameworks instituted by the Government of Pakistan for the protection of environment. All the relevant provisions of these policies and legal frameworks have been duly considered in this EIA study. In addition to this, the roles and responsibilities of the proponent and other key players such as EPA, Punjab has also been discussed in this section.

2.1 Policy Framework

The Ministry of Environment is the responsible authority for policy making on environmental protection in Pakistan.

2.1.1 National Environment Policy, 2005

In March 2005, Government of Pakistan (GOP) launched its National Environmental Policy, which provides an overarching framework for addressing the environmental issues. Section 5 of the policy commits for integration of environment into development planning as instrument for achieving the objectives of National Environmental Policy. It further states in clause (b) of subsection 5.1 that EIA related provisions of Environmental Protection Act, 1997, will be diligently enforced for all development projects. It also provides broad guidelines to the federal government, provincial governments, federally administered territories and local governments to address their environmental concerns and to ensure effective management of their environmental resources.

2.2 Legal Framework

The Government of Pakistan (GOP) has promulgated laws/acts, regulations and standards for the protection, conservation, rehabilitation and improvement of the environment. In addition to this, they have also developed environmental assessment procedures governing development projects. Following are the excerpts of these laws and procedures relevant to the proposed project.

2.2.1 Punjab Environmental Protection Act, 2012 (Amended)

The Act was originally enacted on December 06, 1997 by the name Pakistan Environmental Protection Act (PEPA). It provides the framework for implementation of the Pakistan National Conservation Strategy (PNCS), 1992 establishment of provincial sustainable development funds, protection and conservation of species, conservation of

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renewable resources, and establishment of Environmental Tribunals, appointment of Environmental Magistrates, Initial Environmental Examination (IEE), and Environmental Impact Assessment (EIA). In year 2012 by formulation of Punjab Environmental Protection Agency, this law was amended by the name of Punjab Environmental Protection Act. Section 12 of the Act stresses the need to carry out EIA/IEE study prior to construction or operation of a project. A copy of the PEPA, 2012 (Amended) is attached as Annexure-I.

Pakistan Environmental Protection Agency (Review of IEE/EIA) Regulations, 2000

These regulations provide criteria for projects requiring IEE and EIA. They also briefly describe the preparation and review of environmental reports. A copy of these regulations can be found in Annexure-II.

2.2.2 Pakistan Environmental Assessment Procedures, 1997

Pakistan Environmental Assessment Procedures (1997) is, in fact, a package, which contains the following, sets of information relevant to the proposed project:

a) Policy and Procedures for Filing, Review and Approval of Environmental Assessment Reports

It describes environmental policy and administrative procedures to be followed for filing of environmental examination/assessment reports by the proponents and their review and approval by the concerned environmental protection agencies.

b) Guidelines for the Preparation and Review of Environmental Reports

These guidelines are developed to facilitate both the proponents and decision makers to prepare reports (inclusive of all the information contained therein) and carry out their review so as to take informed decisions.

c) National Environmental Quality Standards (NEQS), 2000

Pakistan Environmental Protection Council (PEPC) first approved these standards in 1993. They were later revised in year 1995, 2000 and 2010. They furnish information on the permissible limits for discharges of municipal and industrial effluent parameters and industrial gaseous emissions in order to control environmental pollution. Copies of the final version of the standards are attached as Annexure-III.

d) Other Relevant Laws**i) Punjab Local Government Ordinance, 2001**

Environmental protection is devolved under Punjab Local Government Ordinance (LGO), 2001. Despite any specific provisions, every local government may perform functions conferred by or under the Punjab LGO, 2001 and in performance of such functions may exercise such powers, which are necessary and appropriate. Until different provisions, rules, regulations or byelaws are made, the local governments may exercise such powers as are specified in the Sixth Schedule of Punjab LGO, 2001. Environmental protection is at serial 48 of the Sixth Schedule.

ii) Canal and Drainage Act, 1873

This Act entails provisions for the prevention of pollution of natural or man-made water bodies.

iii) Pakistan Penal Code, 1860

This defines the penalties for violations concerning pollution of air, water bodies and land.

iv) Factories Act, 1934

The clauses relevant to the proposed project are those that concern the health, safety and welfare of workers, disposal of solid waste and effluent and damage to public and private property. The Act also provides regulations for handling and disposing of toxic and hazardous materials. Given that the construction activity is classified as 'industry', these regulations will be applicable to the project contractors. In addition to this, the following will also be consulted:

- Employees' Cost of Living Relief and Allowances
- Workers' Children (Education Law)
- Companies Profit (Workers' Participation) Law
- Law of Essential Services
- Industrial Relations Law
- Workers' Welfare Law
- Employees' Old Age Benefit Law
- The Shop Act
- The Law of Social Security
- The Law of Payment of Wages and Minimum Wages



- The Law of Industrial and Commercial Establishments

v) The Land Acquisition Act, 1894 (including later amendments)

Although quite old, this Act laid out the legal basis for any property affected by a Project and for compensating the affected owners of the land.

vi) Antiquities Act, 1975

The Act administered by the Provincial Government(s), is aimed at the protection of Pakistan's cultural heritage. The Act defines 'antiquities' as ancient products of human activity, historical sites, or sites of anthropological or cultural interest, national monuments etc. The Act was formulated to protect those antiquities from destruction, theft, negligence, unlawful excavation, trade and export. It prohibits new construction in the proximity of a protected antiquity and excavation in any area that may contain articles of archeological significance. Under the Act, the Project proponents must ensure that no activity is undertaken within 61meters (200 ft) of a protected antiquity, and report to the Department of Archeology, Government of Pakistan, if any archeological discovery is made during the course of the Project.

vii) Protection of Trees and Bushwood Act, 1949

This Act prohibits cutting or chopping of trees and bushwood without permission of the Forest Department.

viii) The Punjab Plantation and Maintenance of Trees Act, 1974

This Act defines rules and regulations for plantation and maintenance of trees in the Province of the Punjab.

ix) Pakistan Penal Code, 1960

This defines the penalties for violations concerning pollution of air, water bodies and land.

2.2.4 Air Quality Standards

In pursuance of the statutory requirement under clause (e) of sub-section (1) of section (6) of the Pakistan Environmental Protection Act, 1997 the Pakistan Environmental Protection Agency, Ministry of Environment has published the Air quality standards. USEPA standards along with National Environmental Quality Standards for Ambient Air may be used for bench marking purpose (Table 2.1).

Table 2.1: Air Quality Standards

#	Pollutant	NEQS		USEPA	
		Time-Weighted average	Concentration standard	Time weighted average	Concentration standard
1	SO ₂	Annual average	80 µg/m ³	Annual arithmetic mean	80 µg/m ³ , (0.030 ppm)
		24 hours	120 µg/m ³	24-hours average	365 µg/m ³ , 0.50 ppm
2	NO	Annual average	40 µg/m ³	-	-
		24 hours	40 µg/m ³	-	-
3	NO ₂	Annual average	40 µg/m ³	Annual arithmetic mean	100 µg/m ³ , (0.053 ppm)
		24 hours	80 µg/m ³		
4	O ₃	1 hour	130 µg/m ³		235 µg/m ³ , (0.12 ppm)
		-	-	8-hours average	157 µg/m ³ , (0.08 ppm)
5	Suspended Particulate Matters (SPM)	Annual average	360 µg/m ³	-	-
		24 hours	500 µg/m ³	-	-
6	PM ₁₀	Annual average	120 µg/m ³	Annual arithmetic mean	50 µg/m ³
		24 hours	150 µg/m ³	24-hours average	150 µg/m ³
7	PM _{2.5}	Annual average	15 µg/m ³	Annual arithmetic mean	15 µg/m ³
		24 hours	35 µg/m ³	24-hours average	65 µg/m ³
		1 hour	15 µg/m ³	-	-
8	Lead	Annual	1 µg/m ³	Quarterly	1.5 µg/m ³

#	Pollutant	NEQS		USEPA	
		Time-Weighted average	Concentration standard	Time weighted average	Concentration standard
		average		average	
		24 hours	1.5 $\mu\text{g}/\text{m}^3$		
9	CO	8 hours	5 mg/m^3	8-hours Average	10 mg/m^3 , (9 ppm)
		1 hour	10 mg/m^3	1-hour average	40 mg/m^3 , (35 ppm)

2.2.5 Noise Standards

NEQS, USEPA and World Bank Guidelines are being used as benchmark of Noise level of the project area (Table 2.2).

Table 2.2: Noise Standards

#	Category of Area	NEQS		WB Standard		USEPA Standards	
		Day Time	Night Time	Day Time	Night Time	Indoor	Outdoor
1	Residential Area	55	45	55	45	45	55
2	Commercial Area	65	55	70	70	70	70
3	Industrial Area	75	65	70	70	70	70
4	Silence Zone	50	45	-	-	-	-

2.2.6 Drinking Water Quality Standards

In pursuance of the statutory requirement under clause (e) of sub-section (1) of section (6) of the PEPA, 1997 the Pakistan Environmental Protection Agency, Ministry of Environment has published National Standards for Drinking Water Quality (NSDWQ). NSDWQ, WHO Drinking water quality guidelines and USEPA standards may be used for bench marking purpose and given in Table 2.3.

Table 2.3: Drinking Water Quality Standards

#	Parameters	Concentration Standards		
		NSDWQ (mg/l)	WHO (mg/l)	USEPA (mg/l)
Chemical Parameters				
1	Aluminium (Al)	≤ 0.2	0.2	0.05-0.02
2	Ammonium (NH3)	-	1.5	NS
3	Antimony (Sb)	≤ 0.005	0.005	0.006
4	Arsenic (As)	≤ 0.05	0.01	0.05
5	Barium (Ba)	0.7	0.7	2.0
6	Boron (B)	0.3	0.3	NS
7	Cadmium (Cd)	0.01	0.003	0.005
8	Chloride (Cl)	< 250	250	250
9	Chromium (Cr)	≤ 0.05	0.05	0.1
10	Copper (Cu)	2	1-2	1.0
11	Cyanide (CN)	≤ 0.05	0.07	0.2
12	Fluoride (F)	≤ 1.5	1.5	2.0-4.0
13	Iron (Fe)	-	0.3	0.3
14	Lead (Pb)	≤ 0.05	0.01	0.015
15	Manganese (Mn)	≤ 0.5	0.1-0.5	0.05
16	Mercury (Hg)	≤0.001	0.001	0.002
17	Molybdenum (Mo)	-	0.07	NS
18	Nickel (Ni)	≤ 0.02	0.02	0.1
19	Nitrate (NO3)	≤ 50	NS	10.0 as N
20	Nitrite (NO2)	≤ 3	NS	10.0 as N
21	Selenium (Se)	0.01	0.01	0.05
22	Silver (Ag)	-	NS	0.1
23	Sodium (Na)	-	200	20
24	Sulphate (So3)	-	250	250
25	Residual Chlorine	0.2-0.5	-	-
26	Zinc (Zn)	5.0	3.0	5.0
Physical Parameters				

#	Parameters	Concentration Standards		
		NSDWQ (mg/l)	WHO (mg/l)	USEPA (mg/l)
27	Color	≤ 15 TCU	15 cu	15 cu
28	Taste	Non Objectionable/ Acceptable	-	-
29	Odour	Non Objectionable/ Acceptable	N S	3 TON
30	Turbidity	< 5 NTU	5 NTU	0.5-5.0 NTU
31	Total hardness	< 500 mg/l	-	-
32	TDS	< 1000	1000	500
33	pH	6.5-8.5	6.5-8.5	6.5-8.5
Biological Parameters				
34	E-Coli	Must not be detectable in any 100 ml sample	0	0
35	Total Coliform	Must not be detectable in any 100 ml sample	0	0

2.2.7 Occupational Health

Construction and operational activities could affect the occupational health of the workers. Quantitative national standards with respect to the above aspect are yet to be developed in Pakistan. However, guidance in qualitative terms can be obtained from the Pakistan Factories Rules, 1962 (based on the Factories Act, 1934) and the Labor Laws (Amended) Ordinance, 1972.

2.2.8 Toxic or Hazardous Waste

Protection of the environment with regards to toxic and hazardous waste is covered by the Pakistan Penal Code (PPC), 1860. Environment Protection Agency (EPA), Punjab, is mandated to monitor the transportation of hazardous materials within the provincial limits.

2.2.9 Preservation of Cultural Heritage

The Antiquities Act, 1975, administered by the Provincial Government, is aimed at safeguarding the preservation of cultural heritage, destruction, damage or defacement of antiquities is an offence under the Act.

2.3 Administrative Framework**2.3.1 Punjab Industrial Estates Development & Management Company (PIEDMC)**

The implementing agency of the proposed project is PIEDMC who will execute the proposed project at M-2 district Sheikhpura. The management of PIEDMC will ensure that all the proposed measures are effectively implemented at the operational stages.

2.3.2 Environmental Protection Agency, Punjab

Pakistan Environmental Protection Council is the apex inter-ministerial and multi-stakeholders decision-making body, which is headed by Prime Minister. While Pakistan Environmental Protection Agency is meant for the enforcement of environmental laws in Pakistan. They have delegated powers to provincial environmental protection agencies for review, approval and monitoring of environmental examination/assessment of projects. As regards the proposed Project, EPA Punjab will be responsible for reviewing the report, issuing No Objection Certificate (NOC) and overall/broad based monitoring of the proposed Project activities.



SECTION 3

PROJECT DESCRIPTION

3.0 GENERAL

This section briefly describes alternatives, scope and components of the proposed Apparel Park. Town planning and infrastructure facilities proposed for the Apparel Park has been mainly described along with discussion on the requirement of manpower and physical resources for the project.

3.1 Project Alternatives

3.1.1 Alternative-1: No Project Option

In case the proposed project will not be executed, the perceived economic and social benefits may not be achieved in the region. The opportunity to get due market value of Pakistani exports will be lost and agriculture and manpower resources will be wasted. Furthermore, the concept of development of industrial estates will be discouraged and individual industrial units will prevail causing more environmental and social concerns.

3.1.3 Alternative-2: Construction of Quaid-e-Azam Apparel Park

Construction of the proposed Apparel Park will help to utilize the potential of physical and manpower resources for the local apparel industry and gain maximum benefits. In addition to increase in Pakistani exports, a regional uplift in the economy, livelihood and lifestyles is anticipated due to creation of a large number of direct and indirect job opportunities. There will be control over environmental performance of the individual industrial units through an independent administration and byelaws and policies may be enforced to support motives such as treatment of industrial effluents, waste minimization and reuse, safe disposal of hazardous wastes, control over gaseous emissions and workplace safety etc.

3.2 Scope of the Project

The scope of this project encompasses development of the basic infrastructure for the Apparel Park including roads, electrical works, water supply system, sewerage system, sui gas supply etc. As large workforce will be needed, therefore, a separate residential area/hostels will also be provided. Project will also include export processing zones (EPZs), truck parking areas, commercial and public buildings etc.

3.3 Location of the Project area

The project area is located in on M-2 (Lahore-Islamabad Motorway) at a distance of about 2 Km from Sheikhpura Interchange. The project site extends along M-2 upto 3.5 Km from Mauza Qaimpur to Bamban Kalan with extension of approximately 1.75

Km on East side of the motorway. The project area comprises of 1565 acres. At present most of the area is being used for the purpose of agriculture. **Figure-3.1** is showing location of the proposed project.

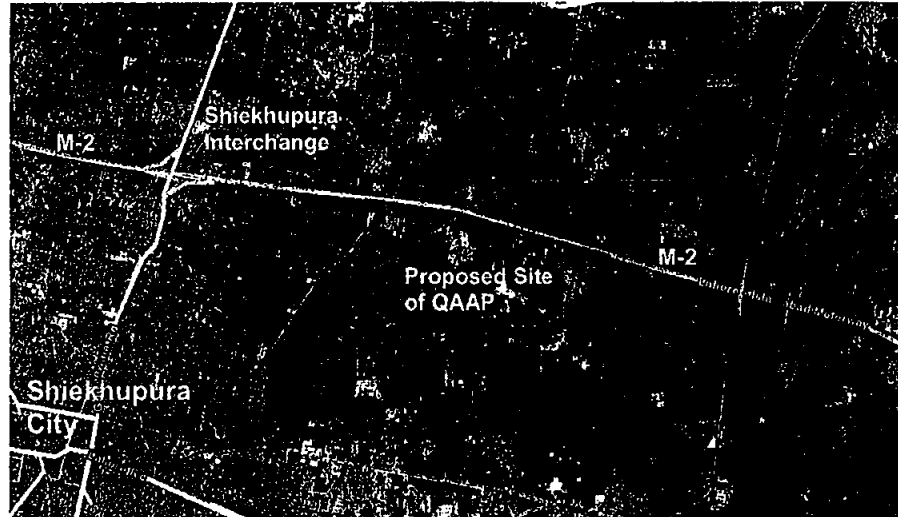


Figure-3.1 Location of the Proposed Project

3.4 Population Estimation

In many instances the industrial population reflects the scale and, in turn, need of the infrastructural facilities for a particular industrial sector like apparel and textile. **Table 3.1** is presenting the summary of population estimated for QAAP.

Table 3.1 Estimated Population of QAAP

	Description	Area (Acre)	Population Density	Population (Persons)
1	Industrial Area	936.7	200	187,340
2	Administrative & Public Buildings area	172.8	10	1,728
3	Apartments (Double Storey)	8.0	1,742	27,872
4	Hospital (Visitors & Staff)	71.0	200 Bed	3,000
5	Parks (Visitors & gardeners)	121	500	500
Total Population				220,447

3.5 Land Use Planning

As discussed earlier, 1565 acre of land will be developed for the proposed Apparel Park. During the landuse planning, different planning parameters have been

considered which includes topography, environment, town planning, urban design, transportation network and site condition etc. The land has been divided broadly into three main areas based on their function namely industrial area, hospital area and centralized public amenities. Details of these three areas are provided in Table 3.2. Figure 3.2 gives the conceptual Master Plan of the proposed QAAP.

Table 3.2 Summary of Land use Classification and types of Amenities

Industrial Area	Hospital Area	Centralized Public Amenities
Small, Medium Apparel Industries Export Processing Zone Godowns, warehouses, Public Transportation, Bus Terminals Truck Parking Areas	Sizeable Hospital Units Residential Apartments Technical Training Institutes Mosques etc.	Commercial centers Exhibition Centers Community Center Grid Station Fire Brigade Recreational Parks Police station and Security system Mosques Post office Cargo and Administration Offices Banks, Accounting Firms, Law Firms etc.

The industrial plots of Apparel Park have also been divided in different categories, which were based on type and size. Table 3.3 shows the distribution of industrial plots.

Table 3.3: Proposed Size of Industrial Plots

Sr. No.	Category of Industrial Plot	Area (acres)	No. of Plots
1	A Category	20-25	11
2	B Category	2	209
3	C Category	1	182
4	D Category	0.5	150

Furthermore, area of 79 acres has been allotted for hospital, residential apartments, schools and vocational training institute on the North-Eastern corner of site area. Out of this total pocket, 50 acres are allocated to hospital, which will not only serve the

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industrial population of QAAP but will also cater for surrounding population of project area with modernized and cheap health facilities.

Beside the industrial and residential area there is a specific amount of area which have been allocated for the amenities that are essential for comfortable living. These facilities include commercial area, medical centres, schools, rescue 1122, sports area, mosques, banks restaurants/hotels etc. These buildings have been located more or less in the center of the industrial area in Neighborhood center. Wherever possible these have been provided in Sub-neighborhood independently; to be easily accessible from other parts of the QAAP. Table 3.4 shows the area estimated for these amenities.

Table 3.4 Public Buildings and Amenities

Sr. No.	Facility	Area (acres)
1	Administration building	1.8
2	Exhibition center	2.3
3	Community center	4.28
4	Computerized Weigh stations	7.12
5	Petrol Pumps/CNG stations	5.5
6	Grid station & Power Plant	28
7	Combined Effluent Treatment Plant	24
8	Land fill site	5.5

3.6 Roads

The proposed road network of Quaid-e-Azam Apparel Park is rectilinear form, with hierarchy of main and local streets. All the circulation arteries have been planned as dual carriageways with adequate tree plantation, landscaping, street lightening, and foot path facilities to properly facilitate vehicular and pedestrian traffic. The designed right-of-way of the Roads for the Quaid-e-Azam Apparel Park is given in Table 3.5.

Table 3.5 Right Of Way of Different Types of Road

Sr. No.	Road Type	Right of Way (m)
1	Approach Roads/Main Roads	61
2	Secondary Road	36
3	Local Distributors	25

3.7 Electrical Works

It is estimated that about 261 MW of electricity will be required for the proposed project. Major electrical works proposed for the Apparel Park are following:

- 3 Separate Grid Stations of 132/11kV
- 132 KV Transmission line
- Overhead Distribution system
- 11/0.415kV Distribution transformers
- Area lighting through LED lights

3.8 Water Supply System

Water supply system of QAAP Park has been designed to cater the peak demand of water. For this purpose, the water demand has been calculated for each purpose separately i.e. for industrial purposes (dry and wet process), domestic purpose, for hospital, parks and firefighting. It is estimated that about 40 cusecs of water will be required for the operational phase after full development of QAAP. Table 3.6 shows the water demand adopted for different purposes.

Pumping with balancing reservoir have been proposed for the water supply. Figure 3.3 shows the layout of water supply system

Table 3.6 Summary of Estimated Total Water Demand of QAAP

Sr. No.	Description	Average Water Demand (Gal/d)		
		Industrial	Domestic	Total
1	Dry/ Apparel Industry	2,529,090	2,810,100	5,339,190
2	Wet/ Textile Industry	10,537,875	936,700	11,474,575
3	Administration & Public Buildings	34,564	-	34,564
4	Apartments	278,784	1,115,136	1,393,920
5	Hospitals	20,000	56,000	76,000
6	Parks	2,178,581	10,000	2,188,581
7	Fire Demand	-	-	1,425,400
Total average water requirement			Gal/day	21,932,230
			Cusec	40.75

As the quality of groundwater in this vicinity is fairly good, therefore, the source of water will be the groundwater which will be extracted through tubewells. Total fifteen (15) tubewells of 4 cusecs capacity will be used to abstract and meet the water requirements of the QAAP. Furthermore, total fourteen (14) overhead tanks will be required to provide balancing storage. High Density Polyethylene (HDPE) pipe lines have been proposed for the water supply.

3.9 Wastewater and Stormwater Collection System and Disposal

Conceptual diagram of wastewater collection system is presented in **Figure 3.4**. Partially combined system is being proposed mainly for both industrial/domestic wastewater and stormwater collection on tertiary roads. In this system, industrial wastewater as well as stormwater coming in the industrial/institutional premises will be collected in the roadside sewers/conduits. Lateral sewers will also receive the stormwater of the lateral roads. All this contaminated wastewater will be collected and pumped through wastewater disposal station near Combined Effluent Treatment Plant (CETP). Treated effluent will be preferably disposed of into seepage drain. Excess effluent will either be disposed of in UCC or re-used for irrigation in nearby agriculture land.

Separate stormwater drainage system is also provided in the central medians of the main roads to cater for runoff generated from rainfall on the main roads. This rainwater will be discharged into the proposed artificial lake located at South-West corner of the Apparel Park. The overflow of the lake will be collected in a Stormwater Disposal Station to pump water into seepage drain/UCC. Both Wastewater and Stormwater Disposal Stations will be interconnected to economize the operation of disposal stations.

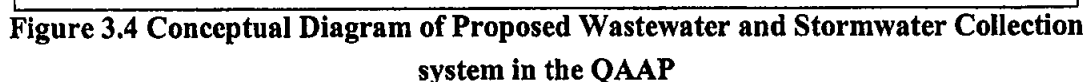


Table 3.7 Summary of the Sizes of Trunk Sewers/Conduits

Sr. No	Description		Length (m)	Design Flow (cusec)	Dia. (mm)/ Size (mm x mm)
1	Trunk Line - A	Sewer	3300	-	610 – 1520
		Conduit	1765	220	3000 x 4000
2	Trunk Line - B	Sewer	2465	46	610 - 1370
3	Trunk Line - C	Sewer	2125	33	460 - 1220
4	Trunk Line - D	Sewer	2270	51	530 - 1520
5	Trunk Line - E	Sewer	1260	17	530 - 910

Stormwater drains have been proposed in the middle of major roads (61 m ROW) to collect and convey the stormwater of roads only. Trunk stormwater drains will convey the stormwater to artificial lake proposed on North-West corner of the QAAP for recreational purposes. Overflow of the lake will be collected and pumped through a stormwater disposal station. The overall sizes and length of these drains have been provided in **Table 3.8**.

5/11/75

Table 3.8: Summary of the Sizes of Trunk Stormwater Drains

Sr. No.	Description	Length (m)	Width (m)
1	Stormwater Drain - A	4560	1.0 – 3.0
2	Stormwater Drain - B	1060	1.0 – 2.0
3	Stormwater Drain - C	1290	1.0 – 1.75

A Combined Effluent Treatment plant has been proposed for keeping the effluent discharging into the water bodies within the permissible limits of National Environmental Quality Standards (NEQS).

3.10 Miscellaneous Works

3.10.1 Natural Gas

Natural gas will be required for domestic, commercial and industrial processing use. A main gas pipe line of Sui Northern Gas Pipe Line (SNGPL) Limited is passing through the project site. However, the requirement of natural gas and its delivery network should be designed by SNGPL at detailed design stage.

3.10.2 Telephone Lines

The requirement of telephone lines and exchange and its delivery network will be designed by Pakistan Telecommunication Corporation Limited (PTCL).

3.10.4 Sanitary Landfill

About 53 tons/d of domestic solid waste will be generated during operational phase. Area for landfill has been allocated for the disposal of municipal solid waste. Location of landfill site is away from the residential area. Leachate collection and nuisance shall be major considerations while designing landfill site. Disposal/management of industrial/hazardous waste will be the responsibility of industries.

3.10.5 Landscaping

Landscaping shall be carried out in the parks and buffer zones provided within the Apparel Park. Selection of plants will be based on the climate and soil conditions the area keeping in view their ecological fitness.

3.10.6 Boundary Wall

Boundary wall of about 8 ft high shall be provided around the Industrial City and razer-wire shall be installed at the top of wall for security purposes.

3.10.7 Approach Roads

Two approach roads have been proposed to provide access to the apparel park. The one is proposed from existing bridge after 500 m from UCC canal to Sheikhpura Interchange. While the other one is proposed from Joyanwala More (Lahore-sheikh road) to the apparel park site.

3.11 Construction Materials

The materials used in civil works will include coarse aggregates (crush), fine aggregates (sand), soil, water, asphalt, steel reinforcement, cement etc. Reinforced cement concrete (RCC) Precast slabs and conventional bricks will be used in the buildings. RCC sewer will be used. High Density Polyethylene (HDPE) pipes will be used for the water supply and Mild Steel (MS) pipes will be used for the natural gas supply. PVC coated copper wired will be used for internal wiring.

3.12 Construction Equipment

The list of the machinery and the equipment required for the proposed Project is provided in Table 3.9.

Table 3.9 Machinery and Equipment Requirement for the Construction Phase of Proposed Project

Sr. No.	Type of Machinery and Equipment	Sr. No.	Type of Machinery and Equipment
1	Dump Truck	12	Self-propelled Pneumatic Roller
2	Front End Loader	13	Asphalt Distributor
3	Dozer	14	Batching Plant
4	Grader	15	Concrete Transit Truck
5	Vibratory Roller	16	Concrete Pump
6	Water Tankers	17	Excavator
7	Aggregate Spreader	18	Water Pumps
8	Three Wheel Rollers	19	Cranes
9	Tandem Roller	20	Vibrators
10	Asphalt Plant	21	Generators
11	Paver		

3.13 Construction Cost

Total cost of the project estimated to be Rs. 22,524 million.

3.14 Project Duration and Phasing

It is estimated that the infrastructural work of the proposed Apparel Park will be completed within 1.5 to 2.0 years. Land acquisition, site clearance, laying of underground ground utilities, construction of boundary walls and internal and

approach roads will be completed on priority bases. Construction of overhead tanks, disposal station, tube- wells will be carried out as per the development trends of the industrial units.

3.15 Standards and Guidelines

Following standards and guidelines will be followed for design of different components of the project:

- i. American Standards for Testing Materials (ASTM)
- ii. American Standards For Highways And Transportation Officials (ASHTO)
- iii. Technical and Service Delivery Standards for Water Supply and Sanitation Sectors, PDSSP, 2008
- iv. Design Criteria, Water and Sanitation Authority (WASA)
- v. National Environmental Quality Standards (NEQS), 2000& 2012

SECTION-4

BASELINE ENVIRONMENTAL PROFILE

4.0 General

An environmental baseline study is intended to establish a database against which potential project impacts can be predicted and managed later. The EIA of the proposed Project covers a comprehensive description of the project area, including regional resources which are expected to be affected by the project, as well as, those which are not expected to be directly affected by the construction and operation of the project. The existing environmental conditions around the proposed project have been considered with respect to physical, biological and socio-economic aspects. Numerous site visits were conducted to survey the field area and to collect environmental data on physical, biological and socio-economic parameters. Further, consultations were held with the general public and stakeholders of the project area in order to seek the public opinion on the implementation of the proposed project.

4.1 Physical Environment

The physical environment includes topography, drainage, climate, landuse, seismology, surface water, groundwater, and ambient air quality.

4.1.1 Topography and Drainage

The area of the District is flat. The district is a part of Rachna Doab. By topography, the District falls into three main divisions: i) upland or Sandal bar in north-west; ii) the lowland along the River Ravi; iii) The Degh valley in between them. The River Ravi forms southern boundary of the District. There is well-established irrigation system in the District. Upper Chenab Canal (UCC) and its distributaries form an irrigation network in the District. The groundwater resources are in abundance. Soil is fertile for agriculture. The drainage system of the District consists of natural drains. Bhed Nullah, Lila Nullah, Degh Nullah, Niki Degh and Chicho Ki Malian Drain form the natural drainage system of the area. Degh Nullah is the main and the biggest drain in the District. Saim Nullah (seepage drain) and Uppar Chenab Canal (UCC) are the nearest surface water bodies in the project area presented in Plate 4.1.

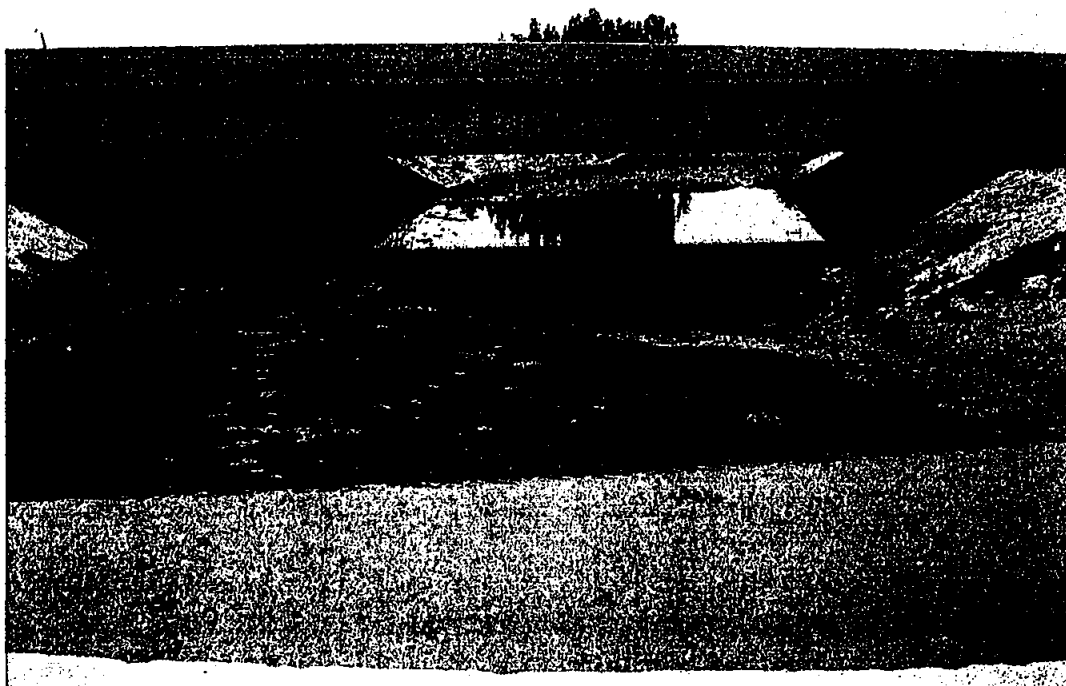


Plate 4.1 Nearest surface water body (Seim Nullah)

4.1.2 Climate

The District has extremes of climate. The summer season starts from the month of April and continues till October. Table 4.1 presents month-wise mean temperature, precipitation and relative humidity. Figure 4.1 shows the graphical presentation of humidity of the project area.

Table 4.1: Month-wise Mean Temperature, Precipitation and Relative Humidity

Month	Mean Temperature (°C)		Precipitation (mm)	Relative Humidity %
	Maximum	Minimum		
January	19.8	5.9	23.0	64.6
February	22.0	8.9	28.6	57.6
March	27.1	14.0	41.2	51.1
April	33.9	19.6	19.7	37.9
May	38.6	23.7	22.4	31.9
June	40.4	27.3	36.3	39.8

Month	Mean Temperature (°C)		Precipitation (mm)	Relative Humidity %
	Maximum	Minimum		
July	36.1	26.8	202.1	63.3
August	35.0	26.4	163.9	68.8
September	35.0	24.4	61.1	59.6
October	32.9	18.2	12.4	53.2
November	27.4	11.6	4.2	61.4
December	21.6	6.8	13.9	67.8
Annual	30.8	17.8	628.7	54.7
Source: Sheikhpura District Census Report, 1998				

The above table depicts that May and June are the hottest months with mean temperature usually ranging from 39 to 41 degree centigrade. The winter season begins from the month of November and continues till March. January is the coldest month with a mean minimum temperature of 6 degree centigrade. Most of the rain falls in July, August and September during summer months and in January, February and March during the winter months.

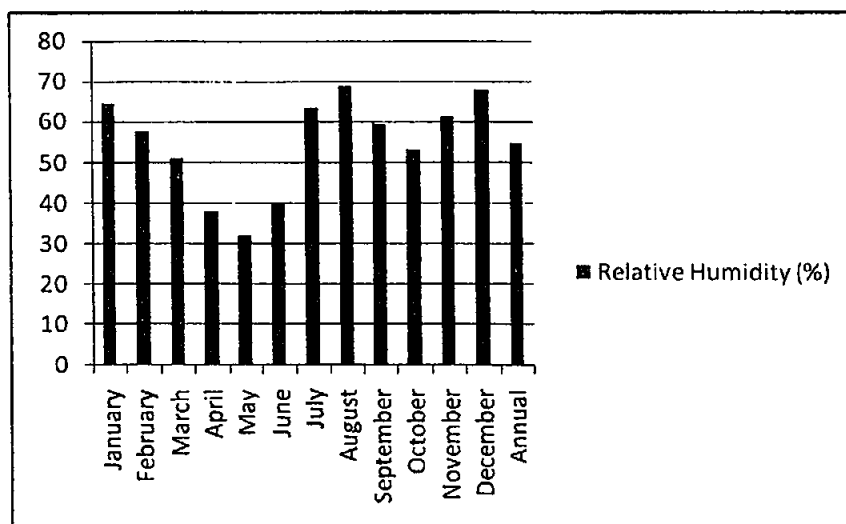


Figure 4.1: Relative Humidity in the Study Area

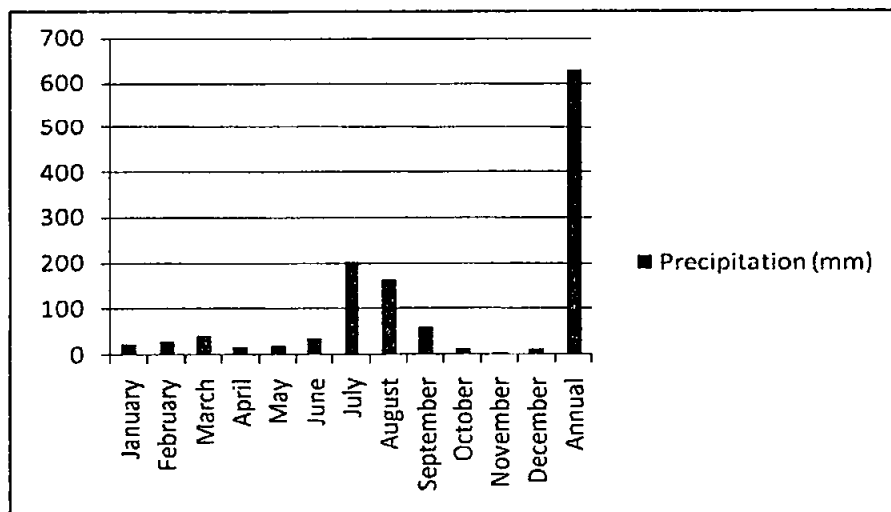


Figure 4.2: Average Rainfall in the Project Area

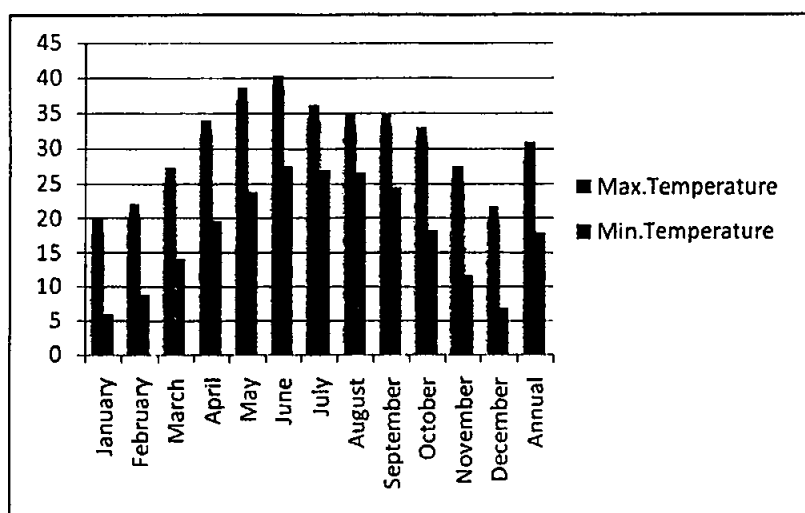


Figure 4.3: Mean Temperature in the project area

4.1.3 Regional Geology and Soil

Sheikhupura District is a part of Rachna Doab and consists of some recent sediment brought from Chenab River. There are some old channel levee remnants and old basins filled up with clay materials. The only mineral products of the District are Kankar and Kallar.

4.1.4 Land Use

The land use in the project area comprises of agricultural fields and few human settlements. The proposed site is inhabited at few locations with scattered houses. No

prominent commercial facilities or public buildings are present at site. However, a major settlement Bamban Kalan is situated within the project boundary.

4.1.5 Seismology

Sheikhupura is situated in *Seismic Zone-2 A* which corresponds to peak horizontal ground acceleration of 0.08 to 0.16g (where 'g' is the acceleration due to gravity). The impacts associated with this zone are low-moderate. Figure 4.2 shows seismic zoning map of Punjab indicating location of the proposed project.

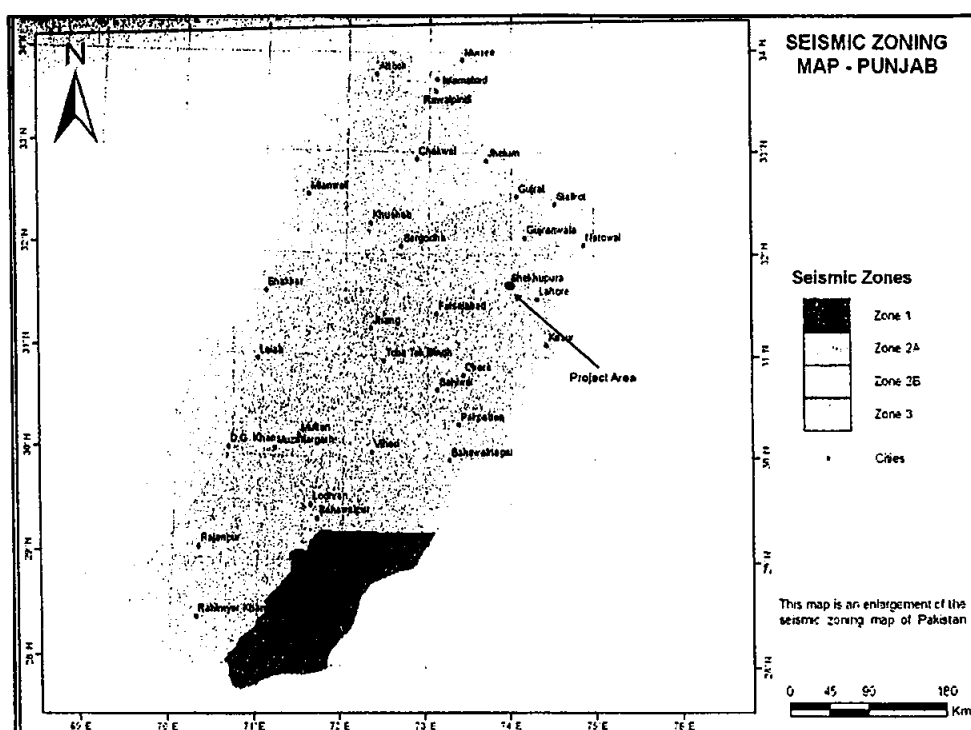


Figure 4.4: Seismic Zoning Map of Punjab

4.1.6 Ambient Air Quality

Atmospheric pollution, particularly in urban areas like Sheikhupura, has a strong impact on daily life. Motor vehicles are a major source of air pollution. However, factories and cottage industry inside the Sheikhupura City are also contributing to the air pollution. Sulphur dioxide (SO_2), Nitrogen dioxide (NO_2), Carbon dioxide (CO_2), Carbon monoxide (CO), Ozone (O_3) and particulate matter (PM_{10}) are considered pollution indicators. The ambient air quality was monitored at three different sites of the project area (Plate 4.2) during the month of May 2014 by SUPARCO Laboratory. The ambient air quality was monitored for priority pollutants such as CO , NO_2 , SO_2

and PM₁₀. The monitoring period was 24 hours at each sampling point. The results obtained are tabulated under Table 4.2.

Table 4.2: Ambient Air Quality Result

Parameter Carbon	Average Time		NEQS	Unit	Average Concentration (Quaid-e-Azam Apparel Park, Sheikhpura)		
					Chichu Ki Malian	Bamban Kala	Motorway Camp site
Carbon Monoxide (CO)	1 st Third	8 h	5	mg/m ³	4.08	3.88	3.73
	2 nd Third	8 h			4.44	3.76	3.7
	3 rd Third	8 h			3.46	4.28	4.22
Sulphur Dioxide (SO ₂)	24 h		120	µmg/m ³	25	21.8	35.6
Nitrogen Dioxide (NO ₂)	24 h		80	µmg/m ³	40.4	28	48.4
Particulate Matter (PM ₁₀)	24 h		150	µmg/m ³	139.6	123.6	121.2

The results indicate that the concentration NO₂, SO₂, CO and PM₁₀ were within permissible limits of Pak EPA NEQS.

4.1.7 Noise

Noise pollution (or environmental noise) is displeasing to human or machine-created sound that disrupts the activity or balance of human or animal life. A common form of noise pollution is from transportation, principally motor vehicles. The source of most noise worldwide is transportation systems, motor vehicle noise, along with aircraft noise and rail noise. Poor urban planning may give rise to noise pollution, since side-by-side industrial and residential buildings can result in noise pollution in the residential area. Noise levels were monitored with the help of a portable digital sound meter at three locations for twenty four (24) hours with an interval of one second. The hourly average data was monitored by SUPARCO Laboratory. The minimum and maximum noise levels observed at the given locations are tabulated under Table 4.3.

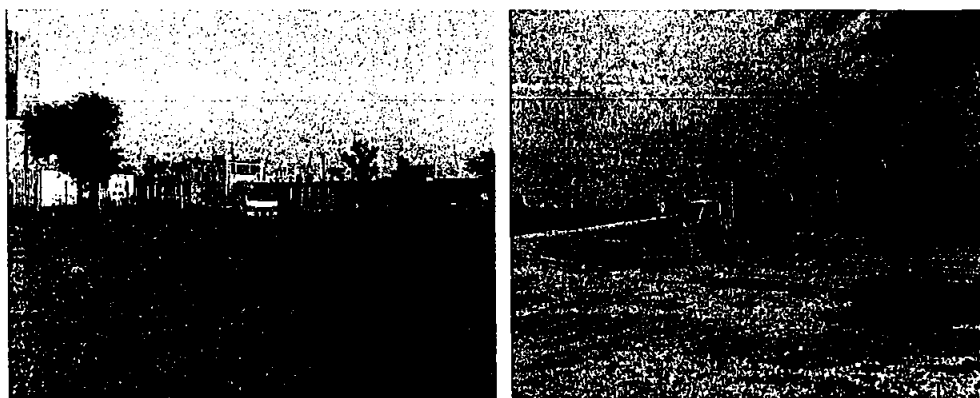


Plate 4.2: Ambient Air Monitoring in the Project Area

Table 4.3: Noise Level Results

Parameter Carbon	Average Time		NEQS	Unit	Average Concentration (Quaid-e-Azam Apparel Park, Sheikhupura)		
					Chichu KI Mallan	Bamban Kala	Motorway Camp site
Noise	Day-time (0600 to 2200)	16h	65	Db(A)	63.47	59.73	61.08
	Night-time (2200 to 0600)	8h	55		61.93	58.82	58.88

Above Table depicts that noise levels at day time are well within the permissible limits of NEQS, while the noise levels were slightly high at night time due to harvesting/growing activities in the project area.

4.1.8 Ground Water Quality

The major source of drinking water supplied to Sheikhupura is through ground water. Thus, quality of groundwater is very important in terms of public health and shall be monitored regularly. Ground Water Quality was monitored in May, 2014 at four different locations in the Project area. The results are given in Table 4.4. The monitoring of Ground Water Quality is shown in Plate 4.3.

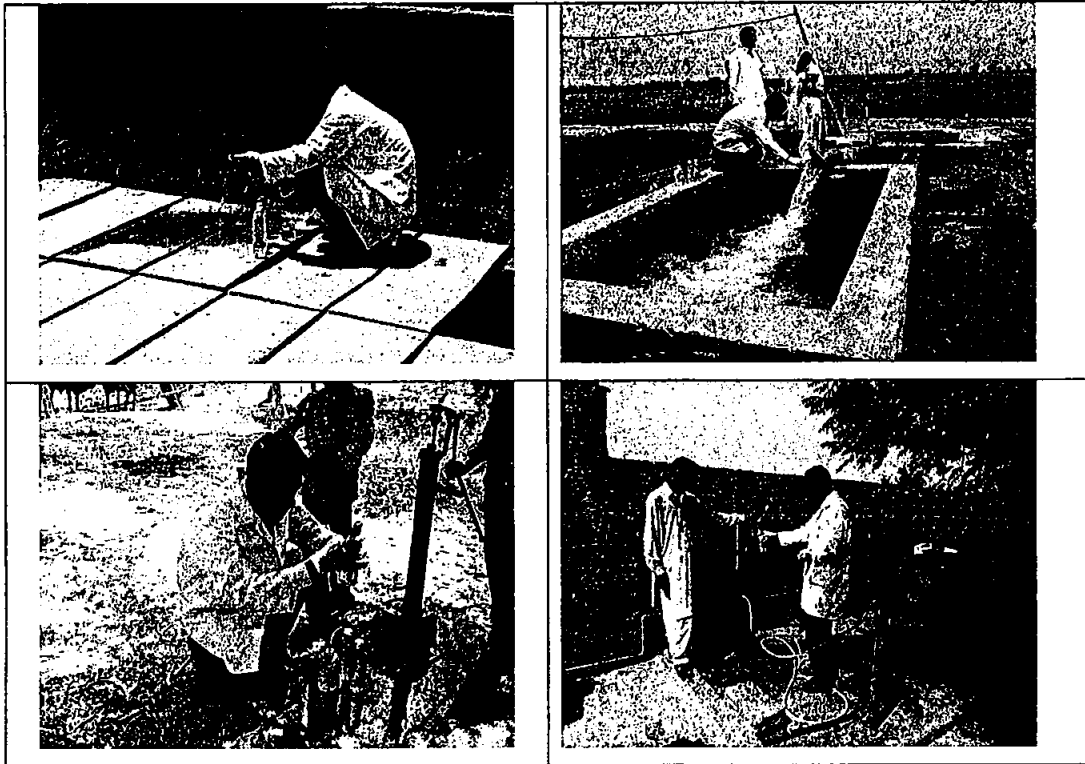


Plate 4.3 Sample Collection for Ground Water Quality Monitoring

Table 4.4 Ground Water Quality Results

Sr. No.	PARAMETER	GROUND WATER QUALITY RESULTS, SHEIKHUPURA				NEQS
		Dairy Farm Tube well (Rao Naeem)	Motor (Rao Naeem)	Pir Shams Shah, Hand Pump Bamban Kalan	Dera Arayan Tube well	
1	Colour	Acceptable	Acceptable	Acceptable	Acceptable	≤ 15 TCU
2	Taste	Acceptable	Acceptable	Acceptable	Acceptable	Non objectionable/ Acceptable
3	Odour	Acceptable	Acceptable	Acceptable	Acceptable	Non objectionable/ Acceptable
4	pH	7.59	7.34	7.25	7.92	6.5 - 8.5
5	Turbidity (NTU)	0.6	0.4	0.7	0.4	<5
6	Total Hardness as CaCO ₃ (mg/l)	210	240	396	105	<500
7	Total Dissolved Solids (mg/l)	295	633	474	259	<1000
8	Aluminium (mg/l)	BDL	BDL	BDL	BDL	≤0.2
9	Antimony (mg/l)	BDL	BDL	BDL	BDL	≤0.005
10	Arsenic (mg/l)	BDL	BDL	BDL	BDL	≤0.05
11	Barium (mg/l)	0.028	0.031	0.020	0.022	0.7
12	Cadmium (mg/l)	0.002	0.001	BDL	0.002	0.01
13	Chloride (mg/l)	11.55	11.9	23.45	11.2	<250
14	Chromium (mg/l)	ND	0.004	ND	0.0012	≤0.05
15	Copper (mg/l)	BDL	BDL	BDL	BDL	2
16	Cyanide (mg/l)	BDL	BDL	BDL	BDL	≤0.05
17	Fluoride (mg/l)	0.31	0.28	0.34	0.38	≤1.5
18	Lead (mg/l)	BDL	BDL	BDL	0.001	≤0.05
19	Manganese (mg/l)	0.025	0.025	0.015	0.030	≤0.5
20	Mercury (mg/l)	ND	ND	ND	ND	≤0.001

Sr. No.	PARAMETER	GROUND WATER QUALITY RESULTS, SHEIKHUPURA				NEQS
		Dairy Farm Tube well (Rao Naeem)	Motor (Rao Naeem)	Pir Shams Shah, Hand Pump Bamban Kalan	Dera Arayan Tube well	
21	Nickel (mg/l)	0.007	0.008	0.006	0.007	≤0.02
22	Nitrate (mg/l)	BDL	0.004	BDL	0.006	≤50
23	Nitrite (mg/l)	BDL	0.003	BDL	0.005	≤3
24	Selenium (mg/l)	BDL	BDL	BDL	BDL	0.01
25	Residual Chorine (mg/l)	<0.02	<0.02	<0.02	<0.02	0.2-0.5 at consumer end, 0.5-1.5 at source
26	Zinc (mg/l)	0.02	0.02	0.01	0.04	5.0
27	Phenolic Compounds as Phenols (mg/l)	BDL	BDL	BDL	BDL	-
28	E. coli or Thermotolerant (MPN/100ml)	0	0	0	0	Must not be detectable in any 100 ml sample
29	Fecal Coliform (MPN/100ml)	0	0	0	0	Must not be detectable in any 100 ml sample
30	Total Coliform Bacteria (MPN/100ml)	0	0	0	0	Must not be detectable in any 100 ml sample

*BDL: Below Detection Limit

The results (Table 4.5) indicate that all the parameters are within the limits specified by NEQS.

4.1.9 Surface Water Quality

Surface Water Quality was monitored in May, 2014 at three different points (Saim Nallah, a pond of Bamban Kalan and Khanpur canal) in the project area. The results are given in Table 4.6. The monitoring of Surface Water Quality is shown in Plate 4.3.



Plate 4.3 Sample Collection for Surface Water Quality Monitoring

Table 4.5 Surface Water Quality Results

Sr. No.	PARAMETER	SURFACE WATER QUALITY RESULTS, SHEIKHUPURA		
		Salm Nallah	Pond, Bamban Kalan	Khanpur Canal
1	Color			
2	Temperature (°C)	29.2	33.4	31.7
3	pH	7.7	7.98	8.04
4	BOD ₅ (mg/l)	9.5	17	5.7
5	COD (mg/l)	15	28	12
6	TDS(mg/l)	604	988	125
7	TSS (mg/l)	80	281	16
8	Grease & Oil (mg/l)	5	8	3
9	Phenolic compounds (mg/l)	0.2	0.45	<0.02
10	Chloride (mg/l)	16.6	12.2	2.7
11	Fluoride (mg/l)	0.4	0.6	0.1
12	Cyanide (mg/l)	0.11	0.19	ND
13	Anionic Detergent (mg/l)	0.1	1.8	0.1
14	Sulphate (mg/l)	820	280	53
15	Sulphide (mg/l)	<0.04	0.18	<0.04
16	Ammonia (mg/l)	0.58	1.56	0.11
17	Calcium (mg/l)	12	19	16
18	Cadmium (mg/l)	0.004	0.005	0.001
19	Chromium (mg/l)	BDL	BDL	0.006
20	Copper (mg/l)	0.012	BDL	0.003
21	Lead (mg/l)	BDL	BDL	BDL
22	Mercury (mg/l)	BDL	BDL	BDL
23	Selenium (mg/l)	BDL	BDL	BDL
24	Nickel (mg/l)	0.003	0.002	0.007
25	Silver (mg/l)	BDL	BDL	BDL
26	Zinc (mg/l)	0.012	0.014	0.021
27	Arsenic (mg/l)	ND	ND	0.003
28	Barium (mg/l)	0.09	0.07	0.009
29	Iron (mg/l)	BDL	BDL	0.04
30	Manganese (mg/l)	BDL	BDL	BDL
31	Boron (mg/l)	BDL	BDL	0.04
32	Chlorine (mg/l)	<0.02	<0.02	<0.02
33	E. coli or Thermo tolerant (MPN/100ml)	>38×10 ³	>38×10 ³	>38×10 ³
34	Fecal Coliform (MPN/100ml)	>38×10 ³	>38×10 ³	>38×10 ³
35	Total Coliform Bacteria (MPN/100ml)	>38×10 ³	>38×10 ³	>38×10 ³

4.1.10 Solid Waste

District Sheikhupura is experiencing urban sprawl and industrialization leading to a generation of enormous amount of solid waste from many sources, like household waste, commercial activities, industries, hospitals, animal waste, all of which are contributing in creating environmental and health hazards for citizens. Tehsil Municipal Administration (TMA) Sheikhupura is facing severe problem in collection and dumping of Solid Waste due to rapid increase in the population of the city.

Sheikhupura currently generates about 205.12 tons of municipal solid waste daily (Situation Analysis Report for Integrated Solid Waste Management (ISWM) in Sheikhupura, 2013) and is estimated to have a yearly generation of 74869 tons. The existing solid waste collection is divided into primary and secondary collection system. The primary collection is accomplished by sanitary workers those carry out through sweeping of streets & roads and collect the solid waste from small heaps with the help of brooms, wheel barrows etc. and store at permanent and temporary collection points. The secondary collection is accomplished through Tractors & trolleys. TMA also has to collect wastes from debris-demolition of building structures; Hospital wastes; Slaughter Houses wastes; Vegetable Market; Dead animals etc. and those are mixed with municipal waste. In Sheikhupura the disposal of solid waste is mainly done in the form of open dumping at Raitly Road near Chahg, Lakhi Wal Road, Farooqa Road and Jhang Road.

4.2 Ecological Resources

Project site is spread over an area of 1565 Acres and is located, along the Motorway at 38 Kilometer of Lahore-Islamabad Motorway M 2.

4.2.1 Flora

Original vegetation of the tract falls under scrub, dry, tropical thorn forest type as per phyto-geographical classification of the area. These forests consisted of the trees like Karir (*Capparisaphylla*), Wan (*Salvadoraoleoides*) and Jand (*Prosopisspicigera*). With the increase in population and advent of irrigation system, the area was converted into agricultural lands. Farmers have raised a mixture of tree species, along the water channels and boundaries of their agricultural fields. At present, flora consists of a

wide range of trees, bushes, shrubs, herbs, forbs, agricultural crops, vegetables, fruit orchards, ornamental plants, and other rank growths. There are no forests in the Project Area, however, tree species, existing in the Project Area include, Kikar, Shisham, Sirris, Ber, Jaman, Mango, Bakain, Semal, Mulberry, and a number of Ficus species i.e. Berh, Borhi, Pipal etc. There is generally a mixture of species found in the tract. Common trees found in the area are as follows:

Common Name	Botanical Name
Kikar	<i>Acacia nilotica</i>
Shisham	<i>Dalbergiasissoo</i>
Ber	<i>Zyzyphusjijuba</i>
Sufaيدا	<i>Eucalyptus camaldulensis</i>
Toot	<i>Morus alba</i>
Neem	<i>Azadirachta indica</i>
Sirris	<i>Albizialebbek</i>
Jand	<i>Prosopisjuliflora</i>
Sohanjna	<i>Morinaga pterygosperma</i>
Lasura	<i>Tecomaundulata</i>
Bakain	<i>Meliaazadirachta</i>
Bohr, Rubber Plant, Peelak	<i>Ficus species</i>

Existing Trees in the Project Area

Trees existing in the project area are mostly of medium size and with ages between 5 to 15 years. These trees consist of species, such as Kikar, Shisham, Sirris, Jaman, Mulberry, Poplar, Eucalyptus and Ficus species. Boundary of the project area has been marked on ground by erecting pillars, but on a site visit dated 06.05.2014, it was observed that most of the pillars were uprooted and the boundary area could not be clearly ascertained. However, by a rough estimation and partial sample counting in 3 different representative areas of 1 acre each, the number of trees per acre comes to 2.75, and as the total project area is 1565 acres, the estimated number of trees in the entire project area comes to nearly 4000.

Shrubs and Herbs

Common shrubs and weeds are Mesquite (*Prosopis* species), Ak (*Calatropis*), MallahBer (*Zizyphusnummularia*). Other common shrubs and herbs found in the project area are Jawan (*Alhajimaurorum*), Bhakra (*Tribulusterrestis*), Lana (*Suedafruticosa*), Phog (*Calligonumpolygonides*) Jantar (*Sesbaniaaculeata*) and Tumba (*Citrulluscolocynthus*). Jantar, Tumba and Bathu are found mostly grown in left over agricultural fields, while Arind is present mostly along the water channels. The remaining shrubs and herbs grow in open places.

Grasses

The most common grass of the tract is Khabbal (*Cynodondactylon*). It is a useful fodder grass. Other grasses found in the area are Khawi (*Cymbopoganjawarnica*), Sinn (*Elionorushirsutus*) and Gam, mali (*Panicumantidotale*). Kana (*Saccharummunja*) and Dib (*Typhaangustata*) are found along the fish ponds or in moist places.

Reserve or Protected Forest

No reserve or protected forest exists in the vicinity of the project area.

Agriculture

Agricultural cropping is the main land use. The entire area is a recent terrace with deep alluvial, fertile soils. Almost all the project area is under agriculture except areas under houses, existing in different "Deras" or village Bumban Kalan, Dairy Farms or Fish Ponds. Dominant mode of irrigation is the groundwater, which is being withdrawn at a depth of 60 to 70 feet. However tube wells are installed at a depth of 200 to 250 feet depth. A canal called Maujo ki Minor also partially irrigates the project area. The canal is a perennial one with insufficient water supply. However shortage of water is amply compensated by irrigation through tube wells and peter engines. Modern standards of farming are practiced, such as use of tractors, fertilizers and insecticides.

Cropping Pattern

The crop pattern in the project area is the same as followed throughout the plains of Punjab. Major crops of the area are Wheat during Rabi and Rice during Kharif. Rabi crop is sown during November to December and harvested during May to June. Kharif crop is sown during June, July and harvested in the month of October to November.

Fruit Orchards

Fruit crops are grown on a smaller scale in the area. There are 3 fruit orchards in the project area. One is of Lemon, consisting of nearly 3 Acres and the other two are of Guava, consisting of 2 Acres each.

Endangered Species

There are no endangered species of flora in the Project Area.

4.2.2 Fauna

The project area was once rich in wildlife, but due to onslaught of civilization and conversion of forests into agricultural lands, proper habitat for the fauna and especially the mammals has degraded. Fauna of the tract consist of mammals, reptiles and birds. The details are given as under.

Mammals

Common mammals found in the project area are dogs, cats, house rats and bats, Gots, Cows. Small Indian Mongoose and Indian Palm Squirrel have also been reported. These are mostly seen in Derajats or villages.

Reptiles

Snakes such as cobra, kraits etc. were once common in the tract, but now cases of snake bites are very rare, as these reptiles have been either killed by expanding urbanization or they have moved away. Lizards such as Spiny tailed lizard (*Uromastix hardwickii*) and fringed toed lizard (*Acanthodactylus cantoris*) are also reported by the residents of the area.

Amphibians

Amphibians frequently seen in and around the project area, especially during rainy season, include common Frog (*Ranatigrina*) and Indus valley toad.

Birds

House sparrow (*Passer domesticus*), House crow (*Corvus splendens*) and Mynah (*Acridothera tristis*) are the most common sight in the area. In addition, following birds have also been observed or reported in the area.

1. Nightingale (*Pycnonotus cafer*)
2. Parrot (*Psittacula krameri*)
3. Pigeon (*Columba livia*)
4. Asian Koel (*Eudynamis scolopacea*)
5. Red-vented bulbul (*Pycnonotus cafer*)
6. Black Partridge (*Francolinus francolinus*)
7. Grey Partridge (*Francolinus pondicerianus*)
8. Quail (*Coturnix coturnix*)

Above birds are generally found in the open areas and in the fields, whereas little egret (*Egretta garzetta*) is found along the marshy areas or in the fish ponds.

Fishery

Fishing is common in the tract. A number of fish ponds have been built in the project area and its vicinity by the landowners of the tract. The ponds are usually of 4 to 5 acres size. However smaller and even larger ponds are reported in the area. As reported by local landowners, fish ponds exist on about 27 acres in the project area. Varieties usually introduced in the fish farms are Rahu (*Labeo rohita*), Thela (*Catla catla*), Gulfam (*Hypophthalmichthys molitrix*) and Grass carp (*Ctenopharyngodon idella*).

Livestock

Besides agriculture raising of a large number of livestock is the other main source of income. Dominant among livestock are buffaloes followed by cows, goats and sheep. Buffaloes of both Ravi and Nili Breeds which are high milk yielders are raised. Most

feeding is done by stalls, open grazing is very limited due to agricultural crops, orchards and due to restriction on free grazing. Sheep are found in large number at Project Site. Many Australian and foreign breed Cows are present in the two modern poultry farms which exist within the project area. Milk is supplied from these farms to a multinational company, who are well equipped to preserve and supply this milk to nearby Sheikhpura or Lahore city using modern technology. Government as well as private veterinaries and vaccinators attend to the diseases of livestock.

Other livestock includes Donkeys, Horses and few Mules. No Camel are found in the area. Dogs of diverse breeds are very common for watch and looking after livestock

4.3 Socio-economic Environment

The baseline socio-economic conditions of the area are briefed below:

4.3.1 Administrative Setup

The project area falls in the administrative jurisdiction of District Sheikhpura, which is under general charge of the DCO, followed by Additional Deputy Commissioner and three Assistant Commissioners and ten Illaqa Magistrates responsible for the coordination of function of all the nation building departments in the district. The judicial administration of the district is under the charge of district and session judge along with three additional session judges and civil judges.

4.3.2 Demographic Profile

According to 1998 census, the total population of Tehsil Sheikhpura is 1,049,264 which is 31 percent of the district population (3321029). The total area of Tehsil Sheikhpura is 1267 sq.km, which gives population density of 783.6 persons per sq. km. The average annual growth rate in the Tehsil was 3.12 percent and average household size is 7.5 persons.

4.3.3 Rural and Urban Distributions

The urban population is 870,616 or 26.2 percent of the total population of the district which grew at an average rate of 4.8 percent during 1981-98. There are five municipal committees and 1,073 mouzas (a smallest revenue unit) in 1998 of which 112 had

population over five thousand, 261 had 2 to 5 thousand, 243 had 1 to 2 thousand, 402 had under one thousand persons while 55 were un-inhabited.

4.3.4 Religion

The population of the Sheikhpura District of which the Project Area is an integral part is predominantly Muslim i.e. 95.1 percent. The next higher proportion is that of Christians with 4.5 percent. While other minorities like Ahmadis, Hindus, etc. also live in very small numbers. The population of the project area is also predominantly Muslim.

4.3.5 Ethnic Structure

The population generally is divided by, Jats, Khokhar, Pathan, Dogar, Gujjar, Quershi, Rajputs, Syed, arian, Wahga Maan and Kharal. These have been further sub-divided in various sub- caste and sub-tribes.

4.3.6 Mother Tongue

The mother tongue refers to the language used for communication between parents and their children in any household. Punjabi is the predominant language being spoken by majority (98.7%) of the population of the district Sheikhpura followed by Urdu, Pashto, Siraki, Sindhi, Balochi, Bravi and Dari.

4.3.7 Sex Ratio

Sex ratio, i.e. number of males for every 100 females, was 109 per cent recorded in 1998 Census .The ratio was 109 per cent in rural areas and 109 in urban areas. The higher sex ratio observed in the latter areas as compared to the former areas could be sex selective migration to the latter areas.

4.3.8 Migration

The total number of life time in migrants in Sheikhpura district were 330,053 or 9.9 percent of the total population of the district. Of the total life time in migrants

121,314 persons are settled in the towns. Of total district migrants 72.7 percent came from Punjab, 3.9 per cent were from Sindh, KPK and Balochistan, 0.3 percent from Azad Kashmir and Northern Areas while remaining 23.1 percent were Pakistanis who repatriated from other countries.

4.3.9 Economically Active Population

The economically active population is defined here as the persons working, most of the time during the year preceding the census date March 1998 looking for work, laid off and unpaid families helper assisting their family. The economically active population as enumerated in the last census was 22.2 percent of the total population or 31.6 percent of the population 10 years and over i.e. the population exposed to the risk of entering the economically active life at any time. Of the total male population 40.6 percent were economically active, while 59.4 percent not economically active 29.4 percent children under ten years, 12.7 percent students, 2.5 percent domestic workers while 14.8 percent were land lords, property owners, retired persons, disabled, etc.

4.3.10 Unemployment

Unemployment rate is measured as ratio of looking for work and laid off in total economically active population comprising employed, looking for work, laid off and un paid family helpers, generally representing in percentage. The unemployment rate in the district was 17.7 percent which was mainly due to unemployment amongst both the sexes representing 17.8 percent for male and 16.2 percent for female. The unemployment rate was three-eighths times lower in rural areas as compared to urban areas representing 15.3 and 25.1 percent respectively.

4.3.11 Occupations

Of the employed persons in 1998 about 45.3 percent had elementary occupations followed by skilled agriculture and fishery workers representing 29.7 percent, service, shops and market sales workers 7.6 percent while craft and related trade worker representing 5.7 percent.

4.3.12 Education

Education has significant impact on the life of an individual, which enhances the quality of life and productivity. It also serves as a key indicator of any socio-economic development. The educational facilities are not adequate, and people have to send their children to the nearest village(s) and town(s) for higher education, which becomes a hardship for the parents, especially to educate their daughters. Perhaps the lack of education facility is the main cause of low literacy rate in the Project Area, especially among the women.

According to 1998 census, the literacy ratio in Sheikhupura district is 43.8 percent. The literacy ratio for males is 53.3 percent as against 33.3 percent for female.

4.3.13 Health

Health conditions are one of the major determinants of a society's social development and quality of life. Healthy manpower is imperative for advancement and economic growth. The major health facilities available in the district are District Headquarter Hospital, Tehsil head quarters Hospital at each Tehsil along with M.C. Health Centre, Primary Rural Health Centers, Primary Dispensaries, Basic Health Units, TB Centers and 72 Dispensaries. The Zila Council is also running dispensaries, MC Centers and Veterinary Hospitals.

4.3.14 Communication and Roads

Communication network is a fundamental prerequisite for boosting economic activities. The villages of the Project Area are normally connected with main road(s) and district headquarters through metalled roads and with nearby Railway station. A motorway section M-2 is passing through the district, the total length of motor way in the district is 67 km that passes through 31 villages of Tehsil Sheikhupura and Ferozewala. The telephonic facility by Pakistan Telecommunication Company Limited (PTCL) is limited, however a growing trend of utilization of cell phones, whose connections are easily available, is also facilitating the local population with communication network.

4.3.15 Industry

Sheikhupura district has undergone rapid industrialization. However presently there is no industrial estate in the district. There are approximately 650 cottage and small/medium/large scale industrial units operating in the district. The prominent industries in the district are of rayon and polyester fiber, woolen textile, rice husking flour mills, cotton textile spinning and weaving, tanneries, heavy engineering, pharmaceutical, fertilizers, paper and board, assembling of motor cycles and cycles, sugar and ghee mills, ice and cold storage, foundries, steel re-rolling, jute products, steel pipes, glass products, poultry farms, agricultural implements, ceramics, petroleum products, extraction of rich brand oil, etc.

4.3.16 Archeological and Cultural Property/ Places of Interest

District Sheikhupura has many places of interests that attract the tourist from within and outside country which includes Hiran Minar, Sheikhupura Fort and Shrine of Warris Shah.

4.4 Impact Assessment Survey of the Project Area

The Impact Assessment Survey of project area was conducted in order to derive primary data / information and also to identify the impacts and their magnitudes on the affected population. A sample of 150 respondents was taken on the basis of random sampling technique, which included farmers, residents, drivers and students and other notable persons like number dars, ex-councilors, teachers etc. During the survey, both males and females were contacted for information. The purpose of survey was to get responses about the perceived impacts and preferences towards the project implementation.

4.4.1 Survey Findings

Detailed findings of the survey comprising of different parameters are discussed in the following section.

i) Gender Ratio of the Respondent

Total 150 respondents were contacted for information collection, comprising of 70% males and 30% females. Table 4.7 shows Gender ratio of the respondents interviewed during the survey

Table 4.7: Gender Ratio of the Respondents

Sr. No.	Gender Ratio	Number of Respondents	Percentage %
1	Male	105	70
2	Female	45	30
Total		150	100

ii) Age Composition

The demographic characteristics of the sample survey show (Table 4.8) that 8% of the respondents were up to 25 years of age. 43% of the respondents were aged 26 – 35 years, 28% were 36 – 45 years and 20% were more than 45 years of age. These figures show that by and large respondents were mature enough to express their opinion/concerns about the implementation of Quaid-e-Azam Apparel Park, Sheikhpura.

Table 4.8: Age Composition of the Respondents

Sr. No.	Frequency Distribution	Number	Percentage
1	15 – 25	13	8
2	26 – 35	65	43
3	36 – 45	43	28
4	46 and above	30	20
Total		150	100

The pie chart given below, (Figure 4.3) reflects the age composition of the respondents.

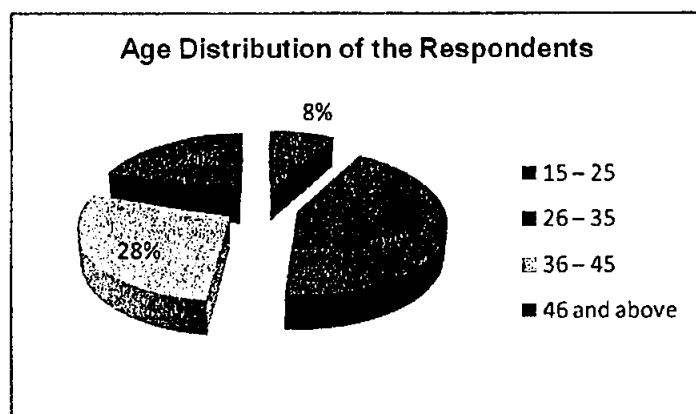


Figure 4.5: Age Composition of the Respondents

iii) **Education Level**

Educational distribution of the respondents is shown in Table 4.9. The data in the table represents that 13% of the respondents were illiterate, 10% were educated up to primary level, 40% were with middle schooling, and 22% were educated up to matric and 8% intermediate. A very few number i.e., 2% and 5% respondents were graduates and masters respectively.

Table 4.9: Educational Level of the Respondents

Sr. No.	Educational Level	Number	Percentage
1	Illiterate	20	13
2	Primary	15	10
3	Middle	60	40
4	Matric	33	22
5	Intermediate	13	8
6	Graduation	3	2
7	Masters & Above	8	5
Total		150	100

The pie chart given below shows the educational level of the respondents. (Figure 4.4).

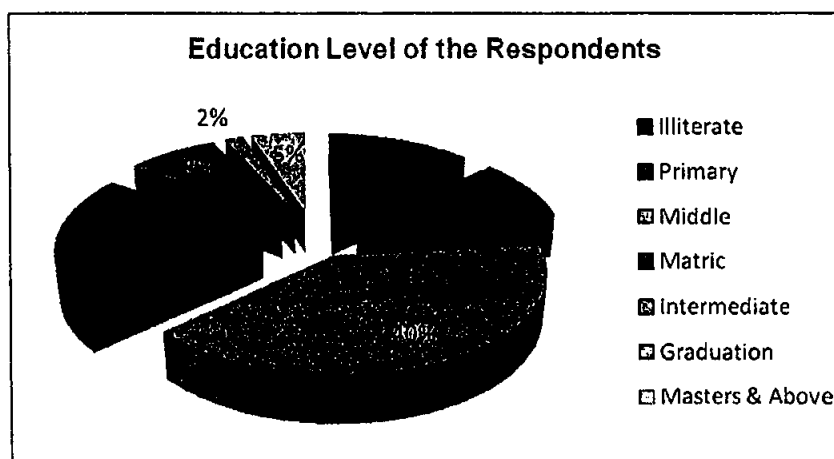


Figure 4.6: Educational Level of the Respondents

iv) Marital Status

According to survey findings 56% of the respondents were married and 44% were living as single member of the society (Table 4.10).

Table 4.10: Marital Status of the Respondents

Sr. No.	Marital Status	Number	Percentage
1	Married	145	97
2	Un-married	5	3
Total		150	100

v) Occupation

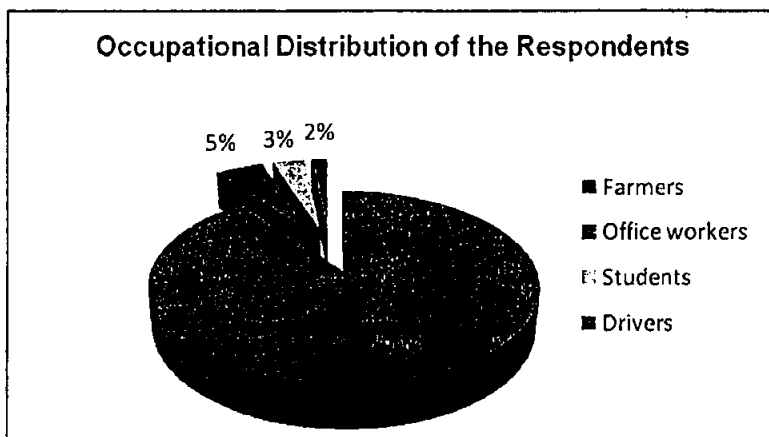
The respondents were inquired about their professions in the project area. Majority of the respondents i.e. 90% were belonging to agriculture / farming on their lands, while 5% were doing jobs in different sectors. Only 3 % were students and 2% respondents were linked with driving profession.

During survey, efforts were made to interact with project stakeholders representing all walks of life. The detailed statistics based on sample survey, regarding occupational status of the respondents are presented in Table 4.11.

Table 4.11: Occupations of the Respondents

Sr. No.	Profession	Number	Percentage
1	Farmers	135	90
2	Office workers	8	5
3	Students	5	3
4	Drivers	3	2
Total		150	100

The occupational distribution of the respondents is given below in the form of pie chart (Figure 4.5).

**Figure 4.7: Occupational Distribution of the Respondents**

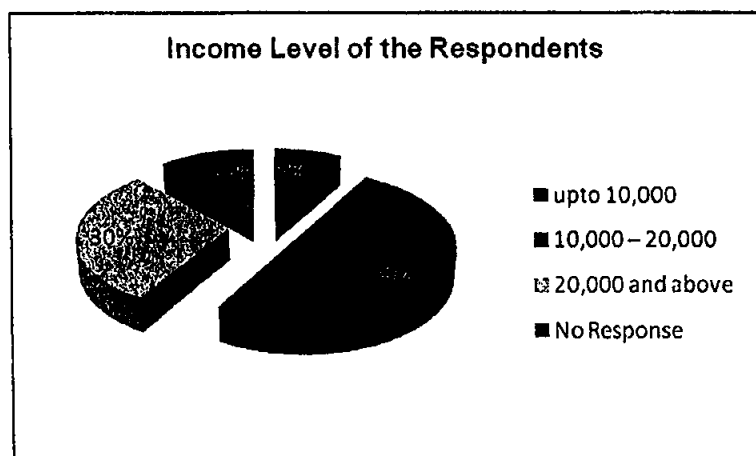
vi) Income Level of the Respondents

From the Table 4.12, it is clear that majority of the respondents (50%) belong to income group of 10,000 to 20,000 and 30% fall in the income group of Rs. 20,000 and above. Whereas 8% of the respondents were earning their monthly income up to Rs. 10,000 and 12% respondents did not give any response about their incomes.

Table 4.12: Income Level of the Respondents

Sr. No.	Frequency Distribution	Number	Percentage
1	Below 10,000	13	8
2	10,000 – 20,000	75	50
3	20,000 and above	45	30
4	No Response	18	12
Total		150	100

In the pie chart (Figure 4.6), the income groups of various respondents are shown below.

**Figure 4.8: Average Monthly Income of Various Respondents**

Vii) Sources of Water for Domestic Use

An easy access to potable / safe drinking water is one of the basic human rights and needs. Table 4.13 indicates that the residents of the entire project area are deprived of tapped water supply system. All the population of project area (100%) was using hand pumps for domestic usage.

Table 4.13: Sources of Domestic Water Supply

Sr. No.	sources of domestic water supply	Number	Percentage
1	Public Water Supply	0	0
2	Hand Pump	150	100
Total		150	100

viii) Water Quality

Table 4.33 shows the current situation of the water quality in the project area. Significant numbers of the respondent i.e. 100% were satisfied with the quality of water available in the project area. The quantitative figures regarding the water quality were shown below Table 4.14.

Table 4.14: Satisfaction level about Quality of Water

Sr. No.	level satisfaction with water quality	Number of Respondents	Percentage (%)
1	Yes	150	100
2	No	0	0
Total		150	100

ix) Land Holding

During the survey, the respondents were asked about their landholding size in the project area. It is clear from survey findings that a large number of respondents (65%) were holding small piece of lands i.e. up to 0-10 acres. The farmers who fall between 10-50 acres land holding were 18%, while 10% of the respondents were holding land up to 50-100 acres. Remaining of the respondents 7% were reported their land holding up to 100 & above acres.

Table 4.15: Land Holding Size of the Respondents

Sr. No.	Average Landholding Size (Acres)	Number of Respondents	Percentage %
	0-10	98	65
	10-50	28	18
	50-100	15	10
	100 & above	10	7
	Total	150	100

In the pie chart (Figure 4.7), the landholding size of respondents is shown below.

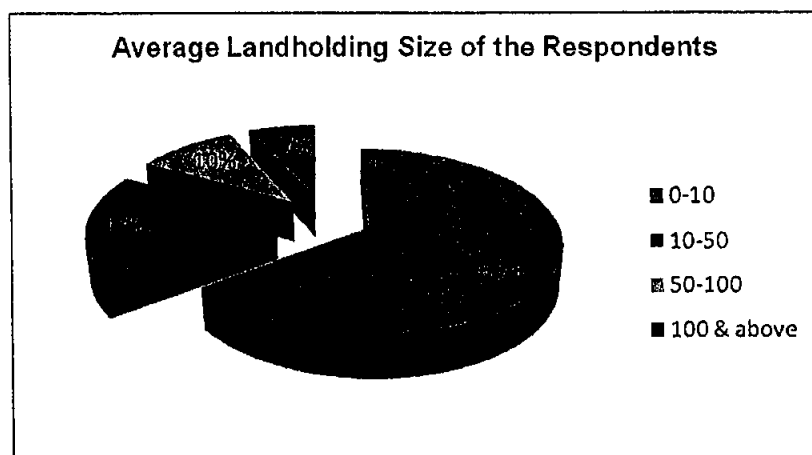


Figure 4.9: Land Holding Size of Respondents

x) Irrigation Water

Study revealed (Table 4.16) that 56% respondents; out of total sampled population depends upon tube well (ground water) for irrigation purpose and 44% respondents use canal water for their agriculture lands. Multiple responses were recorded in each village due to availability of more than one option. Figure 3.18 shows irrigation system within the Project Area.

Table 4.16: Sources of Irrigation Water

Sr. No	Irrigation Channels	Number of Respondents	Percentage %
1	Canal	72	44
2	Tube well	93	56
	Total	165	100

* Multiple responses recorded that shows, the respondents were using more than single source of water for irrigation purpose at the same time.

xi) Cropping Pattern in the Project Area

The major crops grown in project area are rice and wheat. A few numbers of farmers sow vegetables (Potato, Onion, Carrot, Radish, Peas, Pumpkin, Bringle etc.) and Orchards of Illaichi & Guava were also observed in project area. The average yield of major crops in project area is 35 to 40 (maunds) per acre for each crop. Table 4.17 indicates the cropping pattern in the project

area. The data contains multiple response because every village produce number of crops.

Table 4.17: Cropping Pattern in the Project Area

Sr. No.	Cropping Pattern	Number of Respondents	Percentage %
1	Rice & Wheat	120	77
2	Vegetables	35	23
	Total	155	100

*Multiple responses

xii) Acceptability of the Project

Table 4.18 shows the willingness of the respondents about the implementation of the Project. A large number of respondents i.e. 80% did not favor the implementation of Quaid-e-Azam Apparel Park due to various concerns, while 20% show their willingness about the implementation of the project.

Table 4.18: Frequency of Project Acceptability

Sr. No.	Frequency Distribution	Number of Respondents	Percentage %
1	Yes	30	20
2	No	120	80
	Total	150	100

xiii) Perceived Impacts

Table 4.19 provides us the various impacts perceived by the respondents about the construction of Apparel Park. The big apprehension of the respondents (47%) was about the acquisition of their agriculture lands by the implementation of this project. This way, they will lose not only lands but also unable to meet the requisite standard of their socio-economic well being.

The second most important concern raised by the 33% of the total respondents was the availability of local jobs during the operation phase of propose

project. While 11% were those, who feared about the usage of local material during construction stage. About 9% considered that it will lead to ultimately development of project area in future.

Table 4.19: Perceived Impacts

Sr. No.	Perceived Impacts	Number of Respondents	Percentage %
1	Local building material will be used	19	11
2	Job opportunities during operation	55	33
3	Beneficial for the development of area	15	09
4	Private Land Acquisition	78	47
Total		167*	100

*Multiple Responses

The perceived impacts of the respondents about the operation of Apparel Park are shown below in graphical form (Figure 4.8).

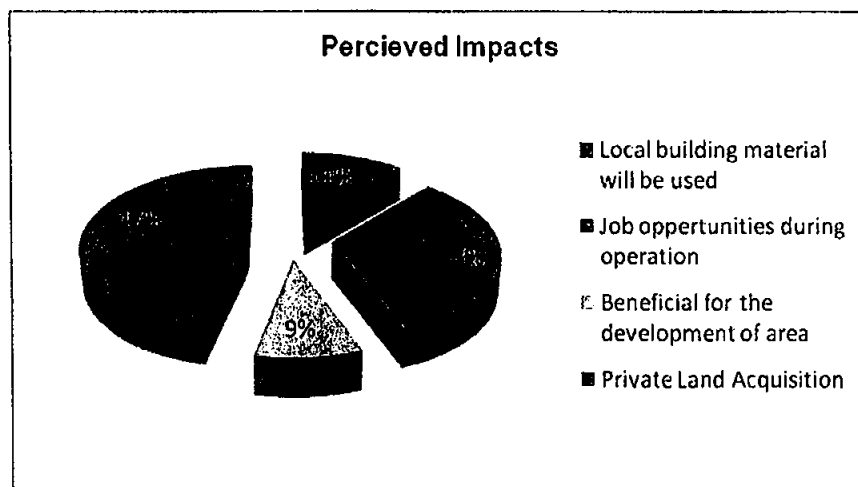


Figure 4.10: Perceived impacts of the respondents

SECTION - 5

PUBLIC CONSULTATION

5.0 General

This section describes the outcome of the public consultation sessions held with different stakeholder groups that may be affected by the project. The consultation process was carried out in accordance with the requirements of Pakistan Environmental Procedures. The objectives of this process were to:

- a) Share information with stakeholders on the construction of the proposed project and expected impacts on the physical, biological and socio-economic environment of the project area;
- b) Understand the perceptions, assessment of social impacts and concerns of the affected people / communities in the near vicinity of the proposed Apparel Park for the project;
- c) Provide an opportunity to the public to provide valuable suggestions for the project design in a positive manner; and
- d) Reduce the chances of conflict through the identification of controversial issues, and consult them to find acceptable solutions;

5.1 Identification of Main Stakeholders

During the field survey, significant efforts were made to identify the possible categories of stakeholders and their stakes. Different stakeholders identified during survey were the shopkeepers, local residents, office workers, drivers, schools, transport users and representatives from different Government Departments etc. All the stakeholders had different types of stakes according to their professions.

a) Consultation and Participation Process

For ascertaining the perceptions of different stakeholders about the project (during construction/operation), meetings were held with them. These meetings were conducted in an open atmosphere, in which participants expressed their views freely.

Informal group discussions were also held as an additional tool for the assessment of the perceptions of the stakeholders.

b) Categories of Stakeholders Contacted

The stakeholders contacted belonged to different categories as shown in the Table 5.1.

Table 5.1: Stakeholders Contacted in the Project Area

Sr. No.	Stakeholder Category
1.	Residents
2.	Business/ shop owners
3.	Office workers
4.	Customers/ clients
5.	Schools
6.	Ex-Council Members
7.	Drivers



Plate 5.1 Interviews with Major Stakeholders

5.2 Consultation Meetings and Informal Group Discussions

Consultation meetings and informal focus group discussions regarding project impacts and its mitigation measures were held with the villagers, number dars, ex-councillors members and representatives from Government Departments like DCO & Tehsil dar etc. These meetings were held at various locations of villages namely, Qayam Pur, Khokhar ki Malian, Saho ki Malian, Bomb kalan.

Generally, people were found to be aware of the need of the proposed Apparel Park project and also showed their support for the project after the again and again meetings with affectees. The people demanded that they must be compensated properly in case of loss of their properties.

5.3 Commonly Raised Stakes / Concerns of the Stakeholders

The most commonly raised concerns during the meetings are listed below:

- Proper compensation should be paid to the affectees for the loss of their properties;
- Criteria of payments to the affectees should be transparent and fair and must be based on current market rate
- Affected people must given some other additional allowances other than compensation for lost assets
- Displaced villages should be compensated properly like provision of hamlets must be there by government ;
- Minimize the effects of noise, dust, vibration, traffic and lightening associated with construction activities on the communities living near the project area that can cause disturbances and emotional stress,
- Adopt measures to control the spillages from construction machinery in order to avoid accidents;
- Avoid dumping construction material openly;
- Solid waste produced during the construction should be disposed of properly;
- Construction site should be fenced with the corrugated iron sheets to control the noise and dust emissions;
- Scheduled sprinkling of water during the construction phase;

- Utilities disturbed at the site should be restored as early as possible;
- Cutting of trees should be avoided at the maximum level;
- Efforts should be made to transplant the trees according to the available facilities;

5.4 Proposed Measures and Mitigation Measures for Addressing the Stakeholders' Concerns

The contractors and design consultants will include the following environmental and safety provisions in the project design and to protect surrounding communities from the expected impact of construction:

- About 1767 people are being affected by the project. An independent Resettlement Plan should be prepared for fair compensation to the project affectees in order to give them fair replacement cost.
- A tree plantation programme to compensate for the anticipated loss of vegetation during the construction activities, and to help abate pollution caused by emissions, dust, and noise during the operation;
- Project site will be fenced with corrugated iron sheets to minimize the level of noise and dust on the surrounding areas during the construction phase;
- Construction machinery will be placed in an adequate locations away from the sensitive areas to minimize the impacts related to the noise;
- Utilize spray mist to reduce fugitive dust particles from impacting surrounding environment;
- Project facilities will be located outside the existing residential and commercial areas. In order to avoid restricting the mobility of the local stakeholders, construction vehicles will remain confined within their designated areas of movement;
- The utilities to be shifted due to the construction of Apparel Park will be rehabilitated on priority basis to minimize the impact on the stakeholders;
- Punjab Industrial Estates Department and Management Company (PIEDMC) is bound to comply with the prevailing national/provincial regulations concerning pollution and waste disposal;
- PIEDMC will make sure the payment for the acquisition of properties;

- Compensation rates will be finalized after the consultation of the affectees;
- Solid waste generated during construction and at camp sites will be disposed of safely at the waste disposal sites approved by the City District Government Sheikhupura; and
- All necessary measures will be taken to ensure the safety of traffic during construction, including barricades (including signs, pavement markings, flags, and lights). All such barricades will be set up to facilitate the local traffic.

5.5 Major Concerns in the Project Area

In addition to the above discussed commonly raised concerns, there were certain issues at site, which needs special attention during the construction stage. The detailed schedule of meetings at site with the stakeholders and the issues raised is given below in Table 5.3.

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CONSULTANTS

Table 5.3: Schedule of Meetings with Stakeholders and their Concerns

Sr. No.	Date	Time	Venue	No. Of Participants	Major Concerns Raised
1.	16-04-2014	02:30 PM	Dera of Rao Naeem, Rao Waseem, Village Qayam Pur	22	<ul style="list-style-type: none"> • Loss of fertile agriculture land. • Compensation should be paid at current market rate. • Dust & noise problem during the construction period. • Water should be sprinkled regularly to control the dust emission. • Government should be shifted proposed project in some other area where barren land available.
2	17-04-2014	11:50 AM	Dera of Akber Ali, Malik Ashraf, Village Khokhar ki Malian	36	<ul style="list-style-type: none"> • Land acquisition should be avoided. • Market rates should be adopted for compensation of land/assets. • The main source of income from farm lands will be disturbed due to land acquisition. • Criteria of payments to the affectees should be transparent • Rate of un-employment will be increased. • Project should be shifted some where else where minimum land acquisition involved.
3	17-04-2014	01:15 PM	Haji Naseer Ahmed, Atif Momin Goraya, Malik Abdul Sattar, Sajid Pindher, Faiz Ahmad Cheema Local Villagers) Village Saho ki Malian	41	<ul style="list-style-type: none"> • Loss of fertile agriculture land. • Loss of employment. • Fair compensation should be provided to the affectees. • Criteria of payments to the affectees should be transparent • Efforts should be made for minimum land acquisition. • Government should use alternative site for proposed project.

4	18-04-2014	12:30 PM	Haji Annaytullah (owner) Dairy Farm	07	<ul style="list-style-type: none"> • Loss of agriculture land. • Loss of employment sources. • Dairy Farm sales will be affected during the construction work due to inconvenience for the customers. • Social disturbance will occur due to land acquisition. • Arrangement should be made to minimize the disruption of public utilities. • Alternative site should be utilized for proposed Apparel Park.
5	18-04-2014	2:30 PM	Dera of Aslam Number Dar, Village Bamban Kalan	25	<ul style="list-style-type: none"> • Criteria of payments to the affectees should be transparent • Government should be shifted proposed project in some other area where barren land available. • Compensation should be paid at current market rate. • Arrangement should be made to minimize the disruption of public utilities. • Alternative site should be utilized for proposed Apparel Park.

SECTION - 6

ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

This section describes the preliminary analysis of potential environmental impacts of the proposed project during planning, construction and operational phase on the physical environment and social setup in the project area. Furthermore, mitigations measures of the perceived environmental impacts are also briefly discussed so that the negative impact of the project can be minimized.

6.1 Environmental Impact Matrices

Methodology adopted for the identification and evaluation of environmental impacts by the proposed project is “Matrix Method”. The environmental impacts matrices have been developed to evaluate magnitude of the impacts of various project activities on different environmental settings for both construction and operational phases. These matrices are given in **Tables 6.1** and **6.2**. The following scale has been used for the evaluation of impacts:

LA =	Low Adverse (low/short-term damage to the environment)
MA =	Medium Adverse (moderate damage to the environment)
HA =	High Adverse (severe damage to the environment)
B =	Beneficial (beneficial to the environment)
N/A =	Not Applicable
O =	Insignificant / No Impact

6.2 Environmental Sensitivity Map

A comprehensive map showing sensitive receptors of the project area such as, educational institutes, mosques, health facilities etc is given in **Figure 6.1**. Tentative locations of these Sensitive Receptors (SR) are indicated on the map and list of these SRs is attached as an **Annexure-IV**.

6.3 Anticipated Impacts during Pre-Construction/Design Phase

Following is the description of impacts envisaged and the recommended mitigation measures during Pre-construction/Design Phase:

6.3.1 Design & Layout Planning

Incompatible layout plan and engineering design of the project's structures can undermine the overall aesthetic beauty and ambience of the project area as the project

area is planned to be constructed on agriculture land. The prospective and futuristic needs can result in structures with low social acceptability and functionality. This impact will be temporary and moderate negative in nature.

Mitigation:

All structural, layout and engineering designing of Apperal Park should be in strict accordance with the applicable by-laws and engineering parameters.

6.3.2 Topography

The Project area lies in the flat terrain and consists of natural drains. Furthermore, development of the area will increase the impervious part of the project area. Most of the existing landuse is agriculture and will be lost due to development of the proposed project. Also excavation/borings would be done for infrastructural development. However, this impact will be insignificant in nature and no change in topography is expected.

6.3.3 Land Acquisition and Resettlement

Due to the construction of the Apperal Park, land acquisition will occur. The land acquisition involved is approximately 1565 Acre. This will result in loss of highly agricultural area, disturbance to people and people if losing their farms will have to start their business from scratch if relocated. Although most of the area is agriculture, but area of the residential communities is coming in the proposed project site.

Mitigation measures will involve careful alignment and route selection by the designer to minimize the impacts by avoiding the residences of these families. Proper access should be provided to the farmers to cultivate the divided land.

6.3.4 Changes in Land Value

The proposed Project is expected to increase the land values, Land owners will have an opportunity to sell their land on increased prices and start new businesses. This impact will be major positive in nature.

6.3.5 Social Issues

Due to the proposed Project, bifurcation of settlements, loss of agricultural land/fields may occur serious problem for the residents. This will result in causing inconvenience to the residents/farmers and affect their daily activities. This impact is permanent and moderate negative in nature. As the project area is high agricultural area with scattered houses educational institutes and Mosques. There are about 242 HHs will be relocated from the affected villages

Mitigation measures will include provisions in the design such as: During construction phase, job opportunities will be created for the local people. Furthermore, indirect positive impacts on the local markets of Sheikhpura are anticipated. However, people losing their land may get livelihood problems if land is their only mean of earning. As the site is away from any major town, the changes in the local culture and lifestyle will be minor during construction phase of the project.

Physical Cultural Resources

Some Physical Cultural Resource is falling within the Project area, so there is need for relocation of such resource. Cultural resources such as graveyards, mosques and shrine are situated in nearby communities and are visited by local people. This impact will be permanent and major negative in nature.

Mitigation measures will include compensation to the communities which have important Physical Cultural Resource.

Biodiversity Conservation and Natural Resource Management

Due to the proposed Project, numbers of trees of various species will be affected. Like fruit trees mainly Guava, Orange, lemon and the some trees include Phulai, Sheesham, Kikar, Eucalyptus, Bakain, Taman, Kau etc. This may have an adverse affect on the ecological habitat of the project area. Many trees and plants will be cut off during construction phase for site clearance. Trees are vital ecosystem, which perform variety of functions for the improvement of environment such as reduction in air pollution, noise abatement, cooling effect on earth, supply of oxygen etc. Furthermore, native terrestrial fauna and avifauna species will have to migrate during construction phase. These impacts will adversely impact the natural ecosystem of the area. This impact will be permanent and moderate negative in nature.

The proposed mitigation measures will include:

- Incorporate technical design measures to minimize removal of these trees, if possible such as change in design;
- Plan for compensatory planting for each trees against each fallen tree of similar floral function;
- Provision of compensation in the Project Budget for the loss of trees to the affected people;
- Disallow introduction of invasive/ exotic species and native species should be recommended for plantation ;
- Only necessary cutting of trees shall be allowed and all trees beyond project site shall remain un-harmed

- The contractor's staff and labour should be strictly directed not to damage any vegetation. They shall use the paths and tracks for movement and should not be allowed to trespass through farmland.
- Construction vehicles, equipment and machinery will remain confined within their designated areas of movement
- Comprehensive plantation plan shall be implemented during construction phase of the project
- Borrow pits should be fenced if located near grazing fields so that no animal can face hazard of injury
- The camps should be properly fenced and gated to check the entry of grazing animals in search of eatable goods. Similarly waste of the camps should be properly disposed off to prevent the chances of eating by wild animals, which may prove hazardous to them.
- Contractor should ensure that the no hunting, trapping of animal should be carried out during construction
- Special measures should be adopted to minimize impacts on wild birds such as avoiding noise generating activities during the critical period of breeding.

6.3.6 Air Quality

Activities during construction of the infrastructure such as earthwork, Concrete plant, operation and movement of vehicles on the unpaved roads may be the potential sources of dust, PM and other gaseous pollutants. Due to the construction of the proposed project, noise and air pollution and associated health risks may increase. Air pollution related mitigation should be adopted for the health of labor, working staff and specific villages. Following are the general mitigation measures to minimize potential impacts on air quality:

- Concrete hot mix and batching plants shall not be located near residential areas
- NEQS applicable to gaseous emissions generated by construction vehicles, equipment and machinery should be enforced during construction works
- Where needed Air Pollution Control (APC) equipment shall be installed with concrete plants, Batching Plants and generators
- Preventive measures against dust should be adopted for on-site mixing and unloading operations. Regular sprinkling of the Site by water should be carried out to suppress excessive dust emissions
- Open burning of solid waste should be strictly banned
- All vehicles, machinery, equipment and generators used during construction activities should be kept in good working condition and be properly tuned and maintained in order to minimize the exhaust emissions

6.3.7 Noise

Existing background noise levels in the project area are well within the acceptable range. However, occupational noise is likely in the construction phase. Main sources of noise will be heavy machinery such as bulldozers, excavators, stabilizers, concrete mixing plant, pneumatic drills and other equipment. The above machinery is expected to generate noise levels that would be severe in the areas. Noise generated by construction machinery is likely to affect sensitive receptors located within 50 meters of the project area. Following are the general mitigation measures to minimize the impacts of noise:

- Provide construction workers with suitable hearing protection like ear cap, or earmuffs and training them in their use
- Preferably, restrict construction vehicles movement during night time near the residential areas and camp sites
- Locate the concrete mixing, and materials shipment yards at least 2km from residential areas, particularly schools and health centers
- Selection of up-to-date and well maintained plant or equipment with reduced noise levels ensured by suitable in-built damping techniques or appropriate muffling devices.

Heavy machinery like percussion hammers and pneumatic drills should not be used during the night

6.3.8 Solid Waste Management

Proper solid waste management system is required for the efficient handling of waste and reduction of waste related impacts during construction. Impacts due to solid waste are expected to be temporary and minor negative in nature.

Mitigation measures will include:

- Planning for disposal sites with reasonable distance from the human settlements;
- Disallow siting for work camps, including waste dump sites, in a distance closer than one (1) kilometer to any inhabited areas;
- Incorporate technical design features for refuse collection containers at sites that would minimize burning impacts;
- Devise plan(s) for safe handling, storage and disposal of harmful materials; and
- Burning of waste will not be allowed in any case.

6.3.9 Excavation of Earth

The excavation of earth from borrow areas and for clearance of project area may result in change of edaphic characteristics of soil. Loss of fertile top soil may affect adversely on the agriculture of the project area. For the construction of the proposed

project, about 1565 Acre of land will be acquired which is highly agricultural in nature. This impact is permanent but major negative in nature.

Mitigation measures will include:

- Borrow pits will not be located on agricultural land unless completely unavoidable; and
- Contractor needs to obtain approval for excavation and submit the plan of rehabilitation of the site after excavation;
- The top 1 ft soil will be stored for future use in rehabilitation of the site; and
- Plan for Rehabilitation of Borrow Pits will be implemented.

6.3.10 Public Utilities

Due to the proposed project, public utilities affected may create disruption of public services and economics including telephone lines, open drainage, electric facilities etc. This impact is however temporary and moderate negative in nature.

Mitigation measures will include:

- Incorporate technical design features to minimize affect on public utilities; and
- All public utilities likely to be affected by the proposed project need to be relocated/rehabilitated well ahead of the commencement of construction work. Incorporate technical design features to minimize affect on public utilities; and
- All public utilities likely to be affected by the proposed project need to be relocated well ahead of the commencement of construction work.

6.3.11 Change in Hydrologic Regime

The project has network of drainage channels/ nullah falling in to the Qadarabad Baloki Canal and Rivers Ravi. Groundwater table is observed high during monsoon season. Tube Wells and hand pumps are the main source for drinking water in the project area.

Mitigation measure would involve:

- Provision of sufficient sizes of drains to take design flows.

6.3.12 Loss of Agricultural Land

Due to the proposed project, mainly agricultural land will be lost and crop yield will be disturbed. But in the long run, due to the construction of the Apparel Park, better Infrastructure facilities and job opportunities will be available to the farmers to enhance their economy. This impact is insignificant in nature. No Mitigation measures are required.

6.3.13 Surface and Ground Water

Sem Nullah is the significant water body present in the project area and construction activities may increase the pollution load. Also, there is a possibility that various materials like fuel, lubricant oil and other oily products, which are used during the construction phase may contaminate groundwater, if they are not handled properly. This contamination will not only endanger the aquatic life but may also result in jeopardizing the health of population/ communities. Surface water gets contaminated by the discharge of wastewater on the surface which may percolate.

These impacts are temporary and negative in nature.

Mitigation measures will include;

- Protection of groundwater reserves from any source of contamination such as the construction and oily waste that will degrade its potable quality;
- Planning of location of construction camps must be at an appropriate distance from the surface water bodies;
- Septic tanks and soakage pits should be designed to cater the wastewater from the construction camps.

6.4 Construction Phase

Following is the brief description of impacts and their mitigation envisaged during the Construction Phase.

6.4.1 Topography

The project area has plane/flat topography and all land is highly cultivated. Extensive work is involved for preparation and clearing of the land. This may involve many activities; cutting and clearing of the land in the project area and borrow pits and may lead to erosion of top soil cover. This impact is permanent and minor negative in nature.

Mitigation measures will include:

- Where the use of agricultural land, the top 1 ft of the plough layer will be stripped of and stockpiled for redressing the land after the required borrow material has been removed;
- Where deep ditching is to be carried out, the top 1m layer of the ditching area will be stripped and stockpiled. The ditch will initially be filled up with scrap material from construction and then levelled with the stockpiled topsoil;
- Ditches or borrow pits that cannot be fully rehabilitated will be landscaped to minimize erosion and to avoid creating hazards for people and livestock; and

- Landowners will be compensated according to the terms of lease agreements negotiated with them and the restoration actions agreed upon by the Contractor will be duly carried out.

6.4.2 Soil

Earth work operation for construction of Apparel park may cause damage to fertile layer, erosion of the loose soil through drainage. Furthermore, excavation may contribute to increase soil erosion. This will lead to increase silt load and turbidity in the Qadarabad Baloki Canal and subsequently to River Ravi. Contamination of soil may be caused by oil and chemical spills at batching plant sites, workshop areas and equipment washing yards. Also due to unplanned use of borrow areas, soil erosion may cause degradation of landscape. These impacts may limit the future use of land. The project area is a plain terrain. Soil erosion and contamination may occur at contractors' camps due to the following likely impacts:

- Excavation of earth/cutting operations, clearing of vegetation and land levelling activities can destabilize the surrounding land surface;
- The unspent materials and debris produced from consumed up materials, if left as such and allowed to mix with soil underneath, can degrade the quality of receiving soils and may render them unfit for plantation later on;
- Leakages of oils, lubricants, chemicals, and other similar substances from their storage sites and from engines of the generators, machines, equipments and vehicles can spoil the receiving soils and may undermine ability of the spoiled soils to support growth of vegetation and plants;
- Non-provision of septic tanks with the temporary worksite toilets, constructed for the labour and others, can contaminate the effluent receiving soils because of raw nature of the effluents;
- Also washing of the gadgets, machinery and equipment without proper drainage of the washout water can adversely affect the soil quality.
- Onsite storage of the construction materials such as sand, aggregate, crushed stone, cement, bricks, lubricants, fuels and iron bars on the land without an intervening barrier, can degrade soil quality and may smear them with fine particulates of the dumped materials;
- Improper onsite storage of equipment and machinery such as wheel barrows, mixers and compactors and disorderly parking of machinery and equipment may cause soil contamination from trickling or accidental leakages of oils and lubricants there from.

Mitigation measures will include:

- All spoils will be disposed off as desired and the site will be restored back to its original conditions;

- Non-bituminous wastes from construction activities will be dumped in approved sites, in line with the legal prescriptions for dump sites, and covered;
- As applicable and needed, plantation of grasses and shrubs will be done at appropriate place where required;
- Excavations would be kept confined to the specified foundation spots as per the approved engineering drawings. Unnecessary excavations should be avoided;
- Site camps for the resident labour should not be setup on the land earmarked for developing green belts and lawns;
- Oils, lubricants, chemicals, and other listed hazardous materials should be stored safely at their designated spots, enclosures or store rooms, which should be safe from rainfall and away from any potential source of fire;
- Septic tanks of adequate capacities should be constructed for receiving and treating wastewater from all temporary worksite toilets and at the temporary container offices, if any. The toilet wastewater should not be discharged untreated onto the adjacent lands;
- All machineries and materials should be stored at the designated areas and compounds;
- All the unspent and left over materials be completely removed offsite upon completion of construction and the site be restored to original or near to original condition; and Washout from washing of equipment and gadgets should be drained into either a septic tank or a sand-gravel bed for removal of the grit and contaminants.

6.4.3 Land Acquisition, Resettlement and Compensation

Due to the construction of the Apparel Park land acquisition will occur. The land acquisition involved is approximately 1565 Acre. This will result in loss of highly agricultural area, disturbance to people and people if losing their farms will have to start their business from scratch if relocated. Although most of the area is agriculture, but area of the residential communities is coming in the proposed project site. The project will require total 1,565 acres of land. Out of those 1484 acres is cultivated land and 27 acres in the form of built up areas. The landuse pattern of the total land area to be acquired is given below in Table 6.1.

Table 6.1: Landuse Pattern

Sr. No.	Land Use Pattern	Area (in Acres)
1	Cultivated Land	1484
2	Fish Farm	27
3	Built Up Area	27
4	Orchards	5
5	Dairy Farm	2

6	Seepage drain	7.5
7	Roads/Tracks	13
Total		1565

Estimation of the Affected Households (HHs) and Population

Total 242 HHs will be relocated from the 04 affected villages with total population of 1767 persons. The built-up area of these HHs is 27 acres. Population has been estimated by taking average HH size of 7.3 persons (DCR1998, District Sheikhpura),

Mitigation measures will involve land management and providing judicious compensation to the affectees by providing sufficient budget in the project cost. The process of land acquisition and compensation will be followed in a transparent manner to minimize the impacts.

According to Land Acquisition Act 1894, the following points are to be considered while determining compensation to the Project affectees:

The market value of land at the date of publication of notification under section 4 sub section (1);

- The damage sustained by the person interested, by reason of the taking of any standing crops, or trees which may be on the land at the time of the collector's taking possession thereof;
- The damage if any sustained by the person interested at the time of the collector's taking possession of the land by reason of acquisition injuriously affecting his other property, moveable, or immoveable, in any other manner, or his earning;
- As a consequence of the acquisition of the land by the collector, the person affected is compelled to change his residence or place of business, the reasonable expenses incidental to such change; and

Proper compensation should be paid to the affectees for the loss of their properties before taking the possession of the land. The Criteria of payments to the affectees should be transparent and fair.

6.4.4 Construction Camps/Camp Sites

Due to the proposed camp sites, loss of vegetation and assets on the selected land and dissatisfaction of rehabilitation measures during and after completion of construction phase may occur. However, it will be a temporary and minor negative impact. For these impacts, mitigation measures have been developed to minimize the likelihood, extent or duration of their occurrence, and any associated adverse effects. **Table 6.3**

summarizes potential impacts and proposed avoidance and mitigation measures associated with construction camps.

Table 6.2: Summary of Impacts of Worker Camp & Mitigation Measures

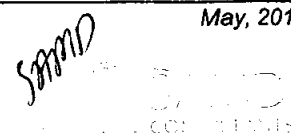
Potential Impact	Proposed Avoidance and Mitigation Measures
Environmental	
<ul style="list-style-type: none"> • Temporary habitat loss or disturbance • Temporary visual intrusion • Noise emissions • Waste generation • Discharge of sanitary effluent and rainwater run-off to water courses 	<ul style="list-style-type: none"> • Individual trees and shrubs of high conservation value to be marked and preserved wherever possible or transplanted if the root conditions are suitable for such an operation. • Reinstate any temporary facilities to pre-existing conditions in ecologically sensitive areas. • Implement landscaping plan for all facilities in areas where high landscape value and visual vulnerability to the proposed activities warrants site-specific landscape restoration measures. • Limit the working hours of noisy activities when near identified sensitive receptors to normal day time working hours. • Operate equipment in a manner sympathetic to the ambient noise environment. Do not leave equipment idling unnecessary. • Eliminate tonal, impulsive or low frequency noise through noise control engineering techniques where practicable (fitting of mufflers, damping, etc.), and substitute for a different method if necessary (e.g., instead of hammering actions, use hydraulics). • Provide adequate warnings of impending works to all potential receptors within a 1 km corridor surrounding the right-of-way

Potential Impact	Proposed Avoidance and Mitigation Measures
	<p>via public notices and local news.</p> <ul style="list-style-type: none"> • Implement Waste Management Plan to include procedures for the classification, storage and disposal of all construction wastes and the training of employees who handle hazardous materials. • Ensure that discharge of sewage from temporary construction facilities to surface courses does not impact surface water ecology. This will be achieved through the provision of treatment facilities and by enforcing the discharge standards.
Social	
<ul style="list-style-type: none"> • Worker camp sitting: consultation surrounding potential construction camp sites revealed concerns regarding the location of proposed sites for Worker Camps. • Tension between Communities and Workers: cultural differences, behavior of construction workers, potential disregard for local cultural norms, potential for prostitution and the attraction of “hangers on” at camp sites could lead to increased tension between local communities and the workers and camps. The scale of this impact will depend on successful implementation of mitigation measures and in part on the origin of the workforce staying in construction camps. Some communities have expressed particular concerns in this regard. 	<ul style="list-style-type: none"> • In order to minimize social disturbances as a result of construction workers, existing camps from previous projects will be identified as a first preference. State land will be a second preference for worker camp locations, followed by land where there is a willing lessee. • The project will seek to avoid sitting camps where their presence might contribute to any conflicts between residents. • Employment policies which aim to maximize job opportunities for local people will help to minimize tensions caused by different socio-cultural values. • Training will be provided to all staff on camp management rules and overall discipline and cultural awareness. This will include, in appropriate languages: <ol style="list-style-type: none"> 1. A briefing on Camp Rules 2. A community relations orientation to increase awareness about the local

Potential Impact	Proposed Avoidance and Mitigation Measures
	<p>area, cultural sensitivities and the project Code of Conduct</p> <p>3. Awareness-raising on health considerations, including STDs.</p> <ul style="list-style-type: none"> The construction contractor is required to develop a Construction Camp Management Plan to address: <ol style="list-style-type: none"> Discipline Community liaison Ethnic tensions Market distortion (see employment and local sourcing mitigation) and Communicable diseases. A Code of Conduct and Camp Rules will be required within the Construction Camp Management Plan, which provides policies and a disciplinary framework with respect to worker behavior.
Camp Location	
The final location will be determined by the construction contractors and agreed with the PIEDMC.	The construction contractor will be required to assess the environmental/social sensitivity of any additional or alternative sites prior to their approval for adoption.

Some additional mitigation measures will include:

- All efforts during the construction stage should be made to minimize the removal of existing macro-plants at camp sites;
- The contractor(s) will provide plan for removal & rehabilitation of site upon completion;
- Photographical and botanical inventory of vegetation before clearing the site; and
- Compensatory plantation to be scheduled when construction works near end.

SAMD


6.4.5 Health and Safety

a) Occupational Health and Safety

Health risks and workers safety problems may result at the workplace if the working conditions provide unsafe and/or unfavorable working environment due to storage, handling and transport of hazardous construction material. Workers will be provided with safe and healthy working environment taking into account risks inherent to the particular sector and specific classes of hazards in Project area.

Mitigation measures will include;

- Obligatory insurance against accidents for labourers/workers;
- Providing basic medical training to specified work staff and basic medical service and supplies to workers;
- Layout plan for camp site, indicating safety measures taken by the contractor, e.g. fire fighting equipment, safe storage of hazardous material, first aid, security, fencing, and contingency measures in case of accidents;
- Work safety measures and good workmanship practices are to be followed by the contractor to ensure no health risks for labourers;
- Protection devices (ear muffs) will be provided to the workers doing job in the vicinity of high noise generating machines;
- Provision of adequate sanitation, washing, cooking and dormitory facilities including light up to satisfaction;
- Proper maintenance of facilities for workers will be monitored;
- Provision of protective clothing for labourers handling hazardous materials, e.g. helmet, adequate footwear for bituminous pavement works, protective goggles, gloves etc;
- Ensure strict use of wearing these protective clothing during work activities;
- Elaboration of a contingency planning in case of major accidents;
- Instruct foremen to strictly enforce the keeping out of non-working persons, particularly children, off work sites;
- Adequate signage, lightning devices, barriers, yellow tape and persons with flags during construction to manage traffic at construction sites, haulage and access roads.

b) Health and Safety

The construction activities and vehicular movement at construction sites and access service roads may result in road side accidents particularly inflicting local communities who are not familiar with presence of heavy equipment. This is a temporary and minor negative impact. Quality of groundwater and surface water resources available in the nearby local communities may be affected due to the

construction activities, oil spillage and leakage, roadside accidents etc. The labour works with different transmittable diseases may cause spread out of those diseases in the local residents. The borrow pit areas located near the residential, settlements, may cause accident for the people moving near to those areas.

Mitigation measures will include:

- There should be proper control on construction activities and Oil spillage leakage of vehicles;
- The Borrow areas should be fenced properly and banned for the movement of the residents;
- The labour works with different transmittable diseases should be restricted within the construction site;
- Efforts will be made to create awareness about road safety among the drivers operating construction vehicles;
- Timely public notification on planned construction works;
- Close consultation with local communities to identify optimal solutions for diversions to maintain community integrity & social links;
- Seeking cooperation with local educational facilities (school teachers) for road safety campaigns;
- Provision of proper safety and diversion signage, particularly at urban areas and at sensitive/accident-prone spots;
- Setting up speed limits in close consultation with the local stakeholders; and
- If identified, consider additional guard rails at accident-prone stretches and sensitive locations (schools);
- The communicable disease of most concern during construction phase, like sexually-transmitted disease (STDs) such as HIV/AIDS, should be prevented by successful initiative typically involving health awareness; education initiatives; training health workers in disease treatment; immunization program and providing health service;
- Reducing the impacts of vector borne diseases on long-term health effect of workers should be accomplished through implementation of diverse interventions aimed at eliminating the factors that lead to disease, which includes;
- Prevention of larval and adult propagation of vectors through sanitary improvements and elimination of breeding habitat close to human settlements;
- Eliminate any unusable impounding of water;
- During construction work, pedestrian and vehicular passages should be provided for crossing near settlement;

- Bridges and other structures have to be structurally stable enough to bear maximum ground acceleration recorded for the area in past;
- Fencing should be strong enough so that it can not be broken easily by local people for making passages;
- Discharge of any wastewater at upstream of the point of public supply should be restricted;
- Batching plants should be installed away from settlements;

Use of water should not disturb public water availability. Source of water should be selected carefully.

6.4.6 Borrow/ Open Pits

Borrow/ open pits and its excavation activities may result in land disputes, soil erosion, loss of potential cropland, loss of vegetation, landscape degradation, and damage to road embankments.

Borrow/ Open pits may also result in potential sources of mosquito breeding may prove hazardous to human beings, livestock and wildlife. This will also degrade hygienic condition of the project area. Plan for closure and rehabilitation of the borrow pit sites will be prepared and implemented. This impact is permanent and minor negative in nature.

Mitigation measures will include:

- Conversion of borrow pits into fish farms and care in selection of borrow areas;
- Necessary permits must be obtained for any borrow pits from the competent authorities;
- No excavations are allowed within distance of 500 m of ROW;
- In borrow pits, the depth of the pit will be regulated so that the sides of the excavation will have a slope not steeper than 1:4;
- Soil erosion along the borrow pit shall be regularly checked to prevent / mitigate impacts on adjacent lands; and
- In case borrow pits fill with water, measures have to be taken to prevent the creation of mosquito-breeding sites.

6.4.7 Pollution Prevention and Abatement

Pollution Prevention technologies and practices will be applied in construction phase according to the International good practices and national and international recognized standards. National Environmental Quality standards (NEQS) will be adopted as performance indicators.

Different types of waste, especially construction waste, are expected to be generated in large quantities from different activities of the proposed project. Small quantities of hazardous waste may also be generated. During the construction phase, gaseous emission may occur from a wide variety of activities. The impacts of different project activities and their appropriate preventive and abatement techniques and mitigation measures are discussed below:

a) Air Quality

Air quality will be affected by fugitive dust emissions from construction machinery; dust from the unpaved surface and construction vehicles. Emissions may be carried over longer distances depending upon the wind speed, direction, temperature of surrounding air and atmospheric stability. Besides, multifarious construction activities and increased vehicular traffic (construction vehicles) would also contribute to the localized airborne dust. Once in the air, the larger sized particles, under influence of gravity, tend to settle down in the immediate vicinity of the source. The suspended particulate matter (SPM) of the size smaller than 10 micrometer (PM_{10}) tends to remain suspended in the environment for much longer and persistent time and is an environmental hazard. The objectionable impacts of settling of the suspended dust would be its dry deposition on vegetation, glass windows, motor vehicles, buildings, and other exposed surfaces. Exhausts from fossil fuel burning in the construction machinery will also deteriorate local air quality. Similarly, exhausts from generators can also have impacts on air quality in the vicinity.

The critical sources of dust pollution during the construction phase will be:

- Unpaved road surface;
- Transportation of materials and other construction activities that create dust emissions.

The overall impact on the quality of air during the construction phase will, however, be temporary and limited to the project's implementation phase only.

Mitigation measures will include:

- All vehicles, machinery, equipment and generators used during construction activities should be kept in good working condition and be properly tuned and maintained in order to minimize the exhaust emissions;
- Blowing of dust from potential sources at the worksite should be avoided by shielding them from the exterior, for example using polythene curtains or raising a fence of corrugated sheets around areas of active constructions;

- Blowing of dust and particulate matter from stockpiled loose materials (e.g. sand, soil) should be avoided either by sheeting them with tarpaulin or plastic sheets or by sprinkling them with light shower of water;
- Open burning of solid waste from the contractor's camps should be strictly banned;
- Preventive measures against dust should be adopted for on-site mixing and unloading operations. Regular water sprinkling of the site should be carried out to suppress excessive dust emission(s);
- Only good quality oils, petroleum products, additives and spares should be used in the machinery, generators, and the construction vehicles. Usage of used oil should be strictly prohibited;
- Emissions from power generators and construction machinery are important point sources at the construction sites. Proper maintenance and repair is needed to minimize the hazardous emissions; and
- NEQS applicable to gaseous emissions generated by construction vehicles, equipment and machinery should be enforced during construction works.

Some of dust problems caused during the construction phase of the Project could be effectively mitigated by the implementation of simple procedures by the Contractor including:

- Service roads (used for earthmoving equipment and general transport) should be regularly sprayed with water during dry weather;
- All excavation work should be sprinkled with water;
- Construction workers should be provided with masks for protection against the inhalation of dust;
- Vehicle speed in the project area should be prescribed not more than 20 km/ hr and controlled accordingly; and
- Vehicles used for construction should be tuned properly and regularly to control emission of exhaust gases.

b) Noise and Vibrations

Noise is a by-product of human activity, and area of exposure increases as function of mobility and construction activities. Sources of noise during construction are heavy machinery such as bulldozers, excavators, stabilizers, concrete mixing plant, pneumatic drills, stone crushers and other equipments. The above machinery is expected to generate noise levels that would be severe in the areas whereas previously no roadside construction is done as in the case of the proposed project. Noise generated by construction machinery is likely to affect sensitive receptors located within 50 meter of the proposed project. This impact is temporary and moderate negative in nature. **Table 6.3** illustrates maximum permissible noise levels for different situations and is given below:

Table 6.3: Maximum Limits of Noise Levels

Noise Level dB (A)	Situation
194	Lung damage
180	Ear drum rupture
150	Absolute limit with ears protected
150	Maximum of instantaneous noise
135	Absolute maximum with ears unprotected
100	Prolonged noise causing permanent damage
90	Factory work for an 8-hour day, 5 days a week
*85	Ear protection should be worn
80	Noise on building or construction sites
70	Normal road traffic near residential areas

Source: "Environmental Degradation" by Engr. Col. Mumtaz Hussain

*Above 85 dB (A) ear protection devices should be worn.

According to Table 6.4 given below, which presents the damage risk criteria for hearing loss, noise level above 110 dB(A) can be tolerated for half an hour only.

Table 6.4: Damage Risk Criteria for Hearing Loss

Sr. No.	Maximum Allowable Duration per day (Hours)	Noise-Level in dB (A)
1	8	90
2	6	92
3	4	95
4	3	97
5	2	100
6	1 ½	102
7	1	105
8	½	110
9	¼ or less	115 (Max.)

Source: Occupational Safety and Health Administration, OSHA, USA

The expected noise levels of heavy machineries during construction phase of the Apparel Park will be estimated.

The likely impacts due to noise are:

- Persistently higher noise levels can produce psychological effects of distraction of attention, irritation and short temperedness in the exposed persons;
- Noisy settings and higher background levels can cause temporary threshold shift and the consequent habit of speaking loud, which may cause damage to vocal cords in the persons exposed;
- Noise produced from moving construction vehicles and blowing of pressure horns, at times, could be intolerable particularly during quiet hours of night; and
- Vibrations from machinery and equipment such as hand held compactors and concrete vibrators can produce easy fatigability and generalized aches in the persons operating these machines.

All mitigation measures mentioned below should be taken in order to minimize the impacts of noise in the project area. These measures include, but are not limited to the following:

- Selection of up-to-date and well maintained plant or equipment with reduced noise levels ensured by suitable in-built damping techniques or appropriate muffling devices;
- Confining excessively noisy work to normal working hours in the day, as far as possible;
- Providing the construction workers with suitable hearing protection like ear cap, or earmuffs and training them in their use;
- Preferably, restricting construction vehicles movement during night time;
- Heavy machinery like percussion hammers and pneumatic drills should not be used during the night without prior approval of the client;
- Vehicles and equipment used should be fitted, as applicable, with silencers and properly maintained;
- Use of low noise machinery, or machinery with noise shielding and absorption;
- Contractors should comply with submitted work schedule, keeping noisy operations away from sensitive points; implement regular maintenance and repairs; and employ strict implementation of operation procedures;
- Noise barriers in sensitive areas in the form of high boundary walls (concrete or wood), earth berms, etc. in front of schools, hospitals and mosques.

c) Noise Sensitive Receivers

Representative noise sensitive receivers (NSRs) were identified during the site visit of the project area. As some of the part of the project area is highly agricultural with the scattered structures along the roads on both sides of the proposed project therefore, the

first layer of these noise sensitive receivers provides acoustic shielding to those receivers behind them. The noise sensitive receivers include the following:

Residential Uses	:	All domestic premises including temporary housing
Institutional Uses	:	Schools
Worship Places	:	Mosques
Others	:	Dispensary, Health centers

d) Solid Waste (Construction Waste and Hazardous Waste)

Due to construction activities waste will be generated at construction and contractors camp site. The construction waste will include waste water, oil spillage from machinery, domestic waste, and solid waste etc. The handling and storage of oil, bitumen may be a source of environmental pollution as a hazardous waste. This will result in unhygienic conditions, health risk to work force and public at the camp site. The likely impacts of solid waste are:

- Insecure and unhygienic disposal of the solid wastes generated at the worksite, particularly garbage and trash may cause degradation of soil and land;
- Insecurely disposed off heaps of wastes containing kitchen garbage and food waste can serve as breeding grounds for the disease spreading vectors and rodents;
- Throwing away of solid wastes into water channels and the wastewater network can result into choking of the latter.
- However, small amounts of solid waste may be generated due to different construction activities and it will mainly include surplus excavated and construction material, construction and demolition (C&D) waste, chemical waste, packaging waste, abandoned drums and equipment etc. and general refuse.
- The indiscriminate disposal of solid waste may cause dust emissions due to wind blowing thereby affecting the health of the workers working or passing in the immediate vicinity of solid waste heaps.
- Working in the project area will also generate some municipal solid waste and can cause nuisance to the workers themselves.

These impacts are temporary and minor negative in nature.

Mitigation measures will include:

- Wastewater effluent from contractor's workshop and equipment washing yards would be passed through gravel/ sand beds to remove oil/ grease contaminants before discharging it into natural streams;

- An efficient and responsive solid waste management system should be devised for the entire duration of the construction phase. Such a system should provide for separate collection of different categories of constructional wastes. The wastes which will be reusable/recyclable (iron bars, aluminum) should be sold to waste vendors and those which cannot be sold out (brick pieces) may be used as a filling material for leveling the depressions, subject to technical feasibility;
- Training of working force in the storage and handling of materials and chemicals that can potentially cause soil contamination;
- Solid waste generated during construction and camp sites will be safely disposed in demarcated waste disposal sites and the contractor will provide a proper waste management plan;
- Proper labelling of containers, including the identification and quantity of the contents, hazard contact information etc.;
- Training of employees involved in the transportation of hazardous material regarding emergency procedures;
- Providing the necessary means for emergency response on call 24 hours/day;
- The sewage system for camps will be properly designed (pit latrines or, as required, septic tanks) to receive all sanitary wastewaters;
- Lined wash areas will be constructed within the camp site or at site, for the receipt of wash waters from construction machinery;
- Use of pesticides in nurseries will be done and deemed necessary as suggested by the experts;
- Insecticides that are less toxic to human health should be used;
- Construction workers and supervisory staff should be encouraged and educated to practice waste minimization, reuse and recycling to reduce quantity of the waste for disposal; and
- Prohibit open burning of solid waste. C&D waste shall be dumped in the approved depression sites
- Recyclable packaging waste shall be sorted out and sold after separations
- Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary waste generation.
- Provide sufficient waste disposal points and regular collection for disposal
- Any unused chemical bin with remaining functional capacity shall be recycled

e) Green House Gas (GHG) Abatement

The main sources of green house gases (CO₂, CH₄, NO_x etc) during the construction activities of the proposed Apparel Park will include both mobile and stationary sources. The mobile source will be the construction and transportation vehicles while the stationary source will be the batching and concrete plants. Emission of green

house gases cause global warming and other climatic changes on regional and global scale.

Mitigation measures will include:

- Regular motioning of the vehicles for engine efficiency;
- Avoid any unnecessary work and transportation;
- Alternative energy resources should be considered where possible;
- NEQS applicable to gaseous emissions generated by construction vehicles, equipment and machinery should be enforced during construction works.

f) Resource Conservation

Almost all the materials to be used in the construction of Apparel Park are non-renewable and therefore their sustainable use is necessary for the future use. Large quantities of water are used in the construction of concrete structures and in watering the unfinished surfaces. Use of water is of major concern while developing resource conservation strategy. Other construction material like aggregate and sand are locally available and there is no concern of scarcity in future use

Mitigation measures will include:

- Wastage of water should be reduced by training the workers involved in water use;
- Wastage of water should be controlled through providing proper valves and through controlling pressure of the water;
- Water jets and sprays should be used for watering surfaces rather than using overflow system;
- Source of water should be carefully selected. Water use should not disturb the existing community water supplies;
- Unnecessary equipment washings should be avoided;
- Use minimum amount of bitumen for road surfacing.

g) Energy Efficiency

Use of electricity will be insignificant. Diesel and residual fuel oils will be used to operate construction machinery and concrete and batching plants. Sustainable use of energy resources is very important not to continue future use but it will also help to reduce air emissions. For conservation of energy, efficiency of the engines and burning processes is very important. Electricity shortage is not expected but the sustainable use of diesel and residual fuel is necessary.

Mitigation measures will include:

- Ensure adequate insulation to reduce heat loss through batching/concrete plants;

- Regularly monitor CO and CO₂ content of the flue gases to verify that combustion systems are using practical excess air volumes;
- Maintain clean heat transfer surfaces in batching/concrete plant;
- Regular service of the vehicles and bathing plants will reduce the mechanical losses of energy.

6.4.8 Surface and Groundwater

Sem Nullah is the significant water body present in the project area and construction activities may increase the pollution load. Also, there is a possibility that various materials like fuel, lubricant oil and other oily products, which are used during the construction phase may contaminate groundwater, if they are not handled properly. During the construction phase, the sanitary wastewater will be generated at the workers' camp(s). If this wastewater is allowed to stagnate in water ponds on the site, it can percolate into the soil, thereby, contaminating groundwater. Therefore, runoff from the construction area may contain increased loads of sediments, other suspended solids and contaminants. Moreover, runoff may carry hazardous materials like cement, fuel, lubricant oils etc. Discharge of sewage from construction camps may discharge bacteriological contaminants into the water bodies. This contamination will not only endanger the aquatic life but may also result in jeopardizing the health of population/communities. Surface water gets contaminated by the discharge of wastewater on the surface which may percolate.

These impacts are temporary and minor negative in nature.

Mitigation measures will include;

- Protection of groundwater reserves from any source of contamination such as the construction and oily waste that will degrade its potable quality;
- Regular water quality monitoring according to determined sampling schedule;
- Prohibit washing of machinery and vehicles in surface waters, provide sealed washing basins and collect wastewater in sedimentation/retention pond;
- Continuous withdrawal and over pumping of groundwater should be avoided. Instead, intermittent pumping be carried out to conserve the groundwater resources;
- Take precautions construct temporary or permanent devices to prevent water pollution due to increased siltation;
- Wastes must be collected, stored and taken to approve disposal site. Construction camps shall not be located near surface water bodies and groundwater bodies to avoid bacterial contamination of sub surface water;
- Storage yards, Batching plants and bitumen plants shall not be located near water bodies to avoid non-point pollution;

- Construction material such as concrete and oil etc. should be properly stored to avoid any chance of contamination of subsurface or surface water;
- Temporary cut-off drains shall be constructed around large stockpiles to regulate the sediment laden runoff;
- Temporary Best management Practices (BMPs) like vegetated strips etc. shall be adopted near water bodies to partially treat the runoff during construction.

6.4.9 Biodiversity Conservation and Natural Resources

Flora

Trees are vital ecosystem, which perform variety of functions for the improvement of environment such as reduction in air pollution, noise abatement, cooling effect on earth, supply of oxygen etc. It is obvious that the implementation of project activities will cause cutting of ornamental plant, existing on the median and within the proposed ROW. These ornamental plants of different species will be affected by the execution of the project. The cutting of these plants will cause a negative impact on the flora of the tract. Following impacts are expected on the flora of the project area:

- During the entire construction period dust laden polluted air will form a dust film on leaves thus blocking sunshine and stomata consequently hindering photosynthesis processes causing detrimental effect on the plant health;
- Exhaust of noxious gases from movement of heavy machinery will further pollute air which will adversely affect health and vigor of plants;
- Establishment of Contractors camps and warehouses for storage of equipment, material etc. shall involve clearing of vegetation from the area, causing a negative impact; and
- During construction activities the Contractor's workers may damage the vegetation and trees (for use as fire-wood to fulfill the camps requirements).

To minimize the impacts on flora, following measures will be adopted during construction stages:

- Camp sites will be established on waste/barren land rather than social and agricultural land. However, if such type of land is not available, it will be ensured that minimum clearing of the vegetation is carried out and minimum damage is caused to trees and undergrowth;
- Construction vehicles, machinery and equipment will remain confined within their designated areas of movement;
- The Contractor's staff and labour will be strictly directed not to damage any vegetation such as trees or bushes;
- Contractor will provide gas cylinders at the camps for cooking purposes and cutting of trees/bushes for fuel will not be allowed; and

- A tree plantation program will be formulated in consultation with the PIEDMC at available sites.

Fauna

As the project area is highly cultivated area so there are some significant faunal species present in the project area. However, mammals, such as dogs, cats, etc will avoid these areas for fear of being persecuted. Same will be the case with reptiles. Some reptiles might be killed during clearing of land. Similarly, birds will try to find shelter and food somewhere else and will tend to move away from the project area to the activities mentioned above for fear of being hunted or caught. Overall, the impact on fauna of the area is insignificant in nature.

6.4.10 Disruption of Existing Public Utilities/ Infrastructure

There may be some disruption to the already existing utilities like electricity poles, underground telephone lines, in the project area during the construction phase. These impacts are, however, temporary and minor negative in nature.

6.4.11 Public Inconvenience

Due to the proposed construction activities, traffic problems may arise in the Project area. This may result in traffic jams and cause inconvenience to the people especially on the Sheikhpura Road and Motorway (M-2). Furthermore, disruption of utilities like electrical lines, water supply pipes etc. will be problematic for the consumers. Following are the general mitigation measures to minimize these impacts:

- Provide proper diversions to the traffic and their maintenance have to be assured near the sites of construction.
- Provision of proper sign boards, especially before diversion, for smooth flow of traffic.
- Construction vehicles, machinery and equipment shall move or be stationed in the designated ROW to avoid un-necessary compaction of nearby soil.

Measures of disruption of public utilities shall be adopted

6.4.12 Traffic Management

Due to the proposed construction activities, proper traffic management may pose a challenge in the project area, particularly, where the construction of Apparel park. This may result in traffic jams and cause inconvenience to the people passing through the project area due to movement of vehicles carrying construction materials on Motorway M-2. It will also increase the traffic load on the existing road network. Also, the movement of vehicles along the haulage routes may cause soil compaction and alteration of percolation, vegetation pattern. This impact is temporary and minor negative in nature.

Mitigation measures will include:

- Proper traffic management plan will be needed to avoid traffic jams/ public inconvenience;
- Movement of vehicles carrying construction materials should be restricted during the daytime to reduce traffic load and inconvenience to the local residents;
- Coordinated planning of traffic diversions by the traffic police and the Transport Department in accordance with the construction programme with advance warnings to the affected residents and road users;
- Construction vehicles, machinery and equipment will move or be stationed in the designated ROW to avoid un-necessary compaction of soil.
- Availability of continuous services of the police in the diversion and control of traffic; and
- The executing agency is required to maintain liaison between the Motorway/ Traffic Police, local residents/ travelers and the contractor to facilitate traffic movement during construction stage.

6.4.13 Waste Disposal

Due to construction activities, waste will be generated at construction and contractors camp site. This may result in health risk to work force and public, if disposal site is improperly selected and operated. This impact is temporary and minor negative in nature.

Mitigation measures will include:

- The waste generated from the camp site will be disposed of through Municipal Committee;
- Burning of waste will be prohibited; and
- Solid Waste will be safely disposed in demarcated waste disposal sites and the contractor will provide a proper waste management plan.

6.4.14 Economic Activity

Due to the construction of the proposed Project, economic activity will be generated in the project area as the labourers and semi-skilled staff will have an opportunity to work for the construction of the proposed project. This will help in developing their skills and capacities. This is a moderate positive impact.

6.4.15 Lifestyle and Culture

There are chances of arising of issues related to cultural differences/conflict between the Contractor's workforce and the local inhabitants, conflicts arising due to the mix

of local and migratory job seekers as the use of local resources and products will be increased. In this situation, local residents may resist contractor's workforce attitudes, cultural clashes particularly when local/international contractors are engaged, social disturbance and dissatisfaction with employing outsiders may arise. This impact is temporary and minor negative in nature.

This impact can be mitigated by adopting the following mitigation measures:

- Timely and full public consultation and announcement of mobilizing equipment;
 - Establishment of formal links with affected communities;
 - Plan for social grievance redress mechanisms including the Nazims of Union Councils and community leaders;
 - Seek assistance from and cooperation with local NGOs;
 - Familiarize outside labourers on local etiquettes;
 - Local labour should be employed for construction works; and
-
- Water supply and sanitation facilities, Contractor's workforces should exacerbate the existing shortages and environmental hazards; contractor should primarily seek their own sources of water in due distance (min. 1 km) from local user's wells.

6.4.16 Wastage of Fertile Plough Layer

The fertile plough layer of project area will be wasted if the construction of the Apparel park is carried out on top of the fertile layer. For the construction of the proposed Project, about 1565 Acre of land will be acquired. This is permanent and minor negative impact.

This impact can be mitigated by utilizing the soil excavated to reclaim the nearby borrow pits/ excavated areas for landscaping along the proposed Expressway.

6.4.17 Impacts of Heavy Vehicles on the Existing Road Network

The plying of heavy vehicles on the existing road network may result in air pollution (if unpaved roads), noise pollution due to tire-road friction especially near sensitive receptors (residential areas, school, health facility etc.), and damage to roads and traffic congestion. However, the impacts would be temporary and moderate negative in nature for which the following mitigation measures are proposed:

- Any vehicle with an open load carrying area used for transport of potentially dust producing materials shall have properly fitted side and tailboards. Materials having potential to produce dust shall not be loaded to a level higher than the side and tail boards and shall be covered with clean tarpaulin in good condition. The tarpaulin shall be properly secured and extended to at least 300 mm over the edges of the sideboard and tailboard;

- Where dust emissions are high, diversion tracks, if required, shall be overlain with shingle or surface treated. Diversion roads in built-up areas shall be established and scheduled to minimize traffic congestion;
- The Contractor shall not use any vehicles either on or off road with grossly excessive noise pollution. In case of built-up areas, noise mufflers shall be installed and maintained in good condition on all motorized equipment under the control of the Contractor;
- The Traffic Management Plan shall be prepared, which will comprise strengthening and widening of the existing minor and major roads or construction of new temporary roads; and
- The traffic on the existing roads shall be managed by NHA in cooperation with the local traffic police department in order to avoid traffic accidents and congestions causing unnecessary delays.

6.5 Anticipated Impacts during Operational Phase

The anticipated potential environmental impacts related to the proposed project have been studied for the operational stage of the Project and are discussed as under.

6.5.1 Ecology

a) Flora

During the operation stage, the trees and vegetation coming in the ROW of the proposed apparel park would already have been removed. However, raising of new plants/trees at available spaces will have a positive and permanent impact. No negative impacts are envisaged on the flora during the operational phase. A number of plants will be raised along the project area at available spaces. The presence of adequate flora, will absorb flue gases, emitted from a large number of cars, vehicles and public transport, which shall in turn improve air quality.

b) Fauna

In many ways, fauna of the project area is dependent upon flora for its resting, nesting and roosting activities. With the improved flora of the project area, due to raising of number of trees, the fauna and especially the avi-fauna shall be attracted to the area. The birds, which were scared away due to noise and degradation of their habitat, shall return to the area. Plantation shall not only reduce the noise and air pollution but will also be a source of attraction for the birds.

6.5.2 Surface and Groundwater

Wastewater from industrial, commercial and residential zone will contain high concentrations of Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Total Suspended Solids (TSS) and Pathogens etc. Wastewater from other

industrial and commercial sectors may contain hazardous metals and compounds. If all this wastewater is not treated properly, it will be a continuous hazard for the aquatic system and downstream uses of canal and river water will be affected. Such impacts should be minimized through following general mitigation measures:

- Combined Effluent Treatment plant (CETP) shall be operated as per Standard Operating Procedures (SOPs) to follow NEQS. Special concentrations shall be paid to sludge treatment and handling
- Implementation of bylaws of individual treatment plants at industrial level shall be ensured
- Industries shall be bound to submit monitoring reports of their effluents regularly
- Monitoring plans for water quality analysis of the CETP effluent, Sem Nullah and groundwater shall be prepared
- Best management Practices (BMPs) shall be maintained to ensure their effective function to treat nonpoint source water pollution

6.5.3 Air Quality

Combustion and other processes in the industries may emit primary and secondary air pollutants. Depending upon the direction and speed of the prevailing wind in the area, these pollutants may create hazard for the nearby population. Long term impacts on human health and plants growth may occur. Possibility of air pollution and related impacts envisaged in EIA report. Following are environmental mitigation measures for reduction of potential environmental impacts:

- Bylaws related installation of Air Pollution Control (APC) equipment shall be strictly implemented;
- Industries shall be bound to submit monitoring reports of their air pollution sources and occupational environment regularly;
- Regular monitoring of the ambient air shall be carried out;
- Regular road maintenance to ensure good surface condition;
- Regular vehicle check to control/ensure compliance with NEQS;
- More green areas and trees should be planted in that region which would suck up the polluted air;

6.5.4 Soil Contamination

Disposal of hazardous waste of industries, hospitals and commercial areas is one of the major concerns during operational phase of the project. No area has been allocated for disposal of hazardous waste within apparel park. Therefore, its improper handling and disposal will pose serious threat to the physical and biological environment. This will also adversely impact the future use of the land where hazardous waste will be

disposed of. Impacts of soil contamination can be minimized through following measures:

- Each industry shall be bound to submit the inventory of use of hazardous chemicals, their use and final disposal including measures to control special waste;
- Signage shall be carried out to regulate the routes of especial waste disposal to avoid the risks of spillages;

6.5.5 Solid Waste

Large quantities of municipal waste from the residential and commercial waste will be disposed of in the sanitary landfill site provided within the Apparel Park . However, without a proper solid waste management system and engineered land filling practices, many environmental risks remain problematic for the residents and visitors. Such impacts should be minimized through following general mitigation measures:

- Solid Waste management (SWM) system shall be operated as per SOPs and improved with time to time;
- Primary collection and storage of solid waste shall be performed in the closed containers;
- Secondary collection shall be done in the compactor trucks;
- Only unusable trash material shall be disposed of into the landfill site and all the reusable material shall be separated, processed and sold accordingly;
- People shall be educated to waste lesser and avoid use of disposable items;

6.5.6 Landscape

At present, the landscape of the project area is dominated by open agricultural fields. However, after the construction of Apparel park, the landscape of the project area will be changed in terms of road infrastructure, construction of Lakes, Petrol Pumps/Weigh stations, Grid Stations, CETP, Administration Area, Hospitals, Hostels, Amenities/Commercial Area, Export Processing Zone, Parks, Green Belts, Roads . This will permanently change the landscape of the project area due to loss of agricultural land but at the same time will have a positive impact in terms of socio-economic development of the project area.

6.5.7 Community Development

Improved communication infrastructure will promote new business opportunities. In addition such an activity will also increase the land value that will benefit the local residents. This impact will be permanent and major positive in nature.

6.5.8 Occupational Health and Safety of Labours

Industrial occupational safety of the workers will be of significant concern during operational phase of the Apperal Park. Industrial processes involve several hazards for minor to major injuries for the workers which need to be addressed during policy making for the operational phase.

Health risks and work safety problems may result at the workplace if the working conditions provide unsafe and/or unfavorable working environment and due to storage, handling and transport of hazardous construction material. Workers should be provided with safe and healthy working environment taking into account risks inherent to the particular sector and specific classes of hazards in project area.

Mitigation measures will include:

- Obligatory insurance against accidents for labourers/workers;
- Providing basic medical training to specified work staff and basic medical service and supplies to workers;
- Layout plan for camp site, indicating safety measures taken by the contractor, e.g. fire fighting equipment, safe storage of hazardous material, first aid, security, fencing, and contingency measures in case of accidents;
- Work safety measures and good workmanship practices are to be followed by the contractor to ensure no health risks for labourers;
- Protection devices (ear muffs) should be provided to the workers doing job in the vicinity of high noise generating machines;
- Provision of adequate sanitation, washing, cooking and dormitory facilities including light up to satisfaction;
- Proper maintenance of facilities for workers will be monitored;
- Provision of protective clothing for labourers handling hazardous materials, e.g. helmet, adequate footwear for bituminous pavement works, protective goggles, gloves etc;
- Ensure strict use of wearing these protective clothing during work activities;
- Elaboration of a contingency planning in case of major accidents;
- Instruct foremen to strictly enforce the keeping out of non-working persons, particularly children, off work sites; and
- Adequate signage, lightning devices, barriers, yellow tape and persons with flags during construction to manage traffic at construction sites, haulage and access roads.

6.5.9 Emergency Response

Disasters such as earthquakes, flooding and other disasters such as fires may occur, and that must be considered for minimizing their impacts.

Mitigation measures will include:

An Emergency Response Plan for earthquakes and manmade disasters will be developed. Emergency Response Plan will be implemented in close consultation with the Rescue 1122 Service, Fire Fighting Department, bomb disposal squad and paramedics. Also evacuation plan will be developed in order to tackle with any emergency. In addition, training of the staff/employees regarding the emergency procedures/plans will be regularly conducted.

6.5.10 Socio-economic Condition

It is estimated that project will provide job opportunities to about 50,000 persons during operational phase. The increase of traffic load on M-2 deteriorate the condition of the road but it also have positive impact i.e, revenue generate. Proposed project will help to alleviate the economic condition of the area. Local people will get enhanced chances of dependable livelihood. Furthermore, communication system of the area will improve and new corridors for growth of local markets will open. Project will tend to attract more urban development with improve living facilities.

SECTION - 7**ENVIRONMENTAL MANAGEMENT AND MONITORING PLAN****7.1 Environmental Management**

Proper Environmental Management includes allocation of resources for mitigation of any potential environmental impact that may be caused due to the implementation of the project. For effective management of the environmental impacts identified in Section - 6 of this EIA Report, a comprehensive Environmental Management Plan (EMP) is prepared and would be followed during design, construction and operation phases of project.

The objective of the EMP is to provide framework for the implementation of the proposed mitigation measures during all three phases of the proposed project. The proper implementation of the EMP will ensure that all adverse environmental impacts identified in the EIA are adequately mitigated, either totally prevented or minimized to an acceptable level and required actions to achieve those objectives are successfully taken by the concerned institutions or regulatory agencies. The implementation of EMP should be carefully coordinated with the design and construction program of the project to ensure that relevant mitigation measures are implemented at the appropriate stage and adequate resources are properly allocated to achieve the desired results.

For effective environmental management, the client should assign the necessary responsibilities to an Environmental Committee (EC) through Project Director PIEDMC, which should be responsible for implementation of the EMP and Environmental Monitoring of the proposed project. The Project Director will be assisted by an Environmental Expert and a Social Expert in implementing the mitigation measures proposed in EMP.

The Contractor will be responsible for the implementation of the proposed project under the supervision of PIEDMC. The Contractor should be bound to follow the provisions of the contract documents especially about environmental protection and apply good construction techniques and methodology without damaging the environment. Obligation of the contractor, to safeguard, mitigate adverse impacts and rehabilitate the environment should be addressed through environmental provisions in the contract document as already highlighted in Section-6 and through adequate implementation at site.

7.2 Staff and Training

7.2.1 Environmental Committee and its Responsibilities

Punjab Industrial Estates Development And Management Company (PIEDMC) will form up an Environmental Committee (EC), which will be responsible for the environmental management and supervisory affairs during the construction phase of the proposed project.

The responsibilities of the Environmental Committee (EC) are as follows:

- To ensure implementation of all the proposed mitigation measures proposed in EMP during the construction of the project;
- To organize routine monitoring of motor vehicle emissions, air quality, traffic, noise and vibration; etc. In case, the noise and emission levels exceed the acceptable levels; a penalty or ban must be enforced;
- To develop operational guidelines and implementation schedule;
- Receiving complaints from residents and institutions and assisting the local environmental authority including liaison with PEPA; and
- To ensure that the proposed project is implemented in an environment friendly manner, causing least harm to the existing environment including flora and fauna, sites of religious and cultural significance etc.

7.2.2 Equipment and Instruments

Environmental monitoring during different stages of project will be carried out by a private laboratory hired by NESPAK during construction and operational stages of the proposed project.

7.3 Environmental Management Plan

The Environmental Management Plan (EMP) provides the framework for the implementation of the mitigating measures and environmental management and monitoring during the construction and operation phases of the proposed project. **Tables 7.1** portray impacts, targets, mitigations and the responsible organizations for the implementation of the mitigation measures during the construction and the operation phases respectively.

Table 7.1: Environmental Management Plan

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
Design Phase				
1	Topography	To minimize the negative impacts on Topography.	<ul style="list-style-type: none"> Impact will be insignificant in nature and no change in topography is expected. 	
2	Design & Layout Planning	To minimize the negative impacts of Design and layout Planning.	<ul style="list-style-type: none"> All structural, layout and engineering designing of Apperal Park should be in strict accordance with the applicable by-laws and engineering parameters. 	DC and PIEDMC
3	Land Acquisition and Resettlement	To avoid/minimize land acquisition and resettlement.	<ul style="list-style-type: none"> Adequate budget will be provided in the project cost for the compensation to the affected people as per Land Acquisition Act, 1894 and framing of a judicious and fair compensation package for provision of compensation on at least the prevailing market rates. 	DC and PIEDMC
4	Biodiversity Conservation and Natural Resource management	To minimize cutting of trees and negative impacts on fauna.	<ul style="list-style-type: none"> Incorporate technical design measures to minimize removal of these trees, if possible such as change in design; Plan for compensatory planting for each trees 	DC and PIEDMC

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>against each fallen tree of similar floral function;</p> <ul style="list-style-type: none"> • Provision of compensation in the Project Budget for the loss of trees to the affected people; • Disallow introduction of invasive/ exotic species and native species should be recommended for plantation ; • Only necessary cutting of trees shall be allowed and all trees beyond project site shall remain un-harmed; • The contractor's staff and labour should be strictly directed not to damage any vegetation. They shall use the paths and tracks for movement and should not be allowed to trespass through farmland; • Construction vehicles, equipment and machinery will remain confined within their designated areas of movement; • Comprehensive plantation plan shall be 	

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>implemented during construction phase of the project;</p> <ul style="list-style-type: none"> • Borrow pits should be fenced if located near grazing fields so that no animal can face hazard of injury; • The camps should be properly fenced and gated to check the entry of grazing animals in search of eatable goods. Similarly waste of the camps should be properly disposed off to prevent the chances of eating by wild animals, which may prove hazardous to them; • Contractor should ensure that the no hunting, trapping of animal should be carried out during construction; • Special measures should be adopted to minimize impacts on wild birds such as avoiding noise generating activities during the critical period of breeding. 	

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
5	Public Utilities	To avoid disturbance to the public utilities and infrastructure	<ul style="list-style-type: none"> • Incorporate technical design features to minimize affect on public utilities; and • All public utilities likely to be affected by the proposed project need to be relocated/rehabilitated well ahead of the commencement of construction work. 	DC and PIEDMC
6	Air Quality	To minimize the air pollution	<ul style="list-style-type: none"> • Concrete hot mix and batching plants shall not be located near residential areas; • NEQS applicable to gaseous emissions generated by construction vehicles, equipment and machinery should be enforced during construction works; • Where needed APC equipment shall be installed with concrete plants, Batching Plants and generators; • Preventive measures against dust should be adopted for on-site mixing and unloading operations. Regular sprinkling of the Site by 	DC and PIEDMC

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>water should be carried out to suppress excessive dust emissions;</p> <ul style="list-style-type: none"> • Open burning of solid waste should be strictly banned; • All vehicles, machinery, equipment and generators used during construction activities should be kept in good working condition and be properly tuned and maintained in order to minimize the exhaust emissions. 	
7	Noise	To minimize the noise pollution	<ul style="list-style-type: none"> • Provide construction workers with suitable hearing protection like ear cap, or earmuffs and training them in their use; • Preferably, restrict construction vehicles movement during night time near the residential areas and camp sites; • Locate the concrete mixing, and materials shipment yards at least 2km from residential 	DC and PIEDMC

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>areas, particularly schools and health centers;</p> <ul style="list-style-type: none"> • Selection of up-to-date and well maintained plant or equipment with reduced noise levels ensured by suitable in-built damping techniques or appropriate muffling devices; • Heavy machinery like percussion hammers and pneumatic drills should not be used during the night. 	
8	Excavation of Land	To save the top fertile land.	<ul style="list-style-type: none"> • Borrow pits will not be located on agricultural land unless completely unavoidable; • Contractor needs to obtain approval for excavation and submit the plan of rehabilitation of the site after excavation; • The top 1 ft soil will be stored for future use in rehabilitation of the site; • Plan for Rehabilitation of Borrow Pits will be implemented. 	DC and PIEDMC

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
9	Surface and Ground Water	To minimize the contamination of the surface and ground water.	<ul style="list-style-type: none"> • Protection of groundwater reserves from any source of contamination such as the construction and oily waste that will degrade its potable quality; • Planning of location of construction camps must be at an appropriate distance from the surface water bodies; • Septic tanks and soakage pits should be designed to cater the wastewater from the construction camps. 	DC and PIEDMC
Construction Phase				
1	Topography	To minimize the negative impacts on Topography.	<ul style="list-style-type: none"> • Where the use of agricultural land, the top 1 ft of the plough layer will be stripped of and stockpiled for redressing the land after the required borrow material has been removed; • Where deep ditching is to be carried out, the top 1m layer of the ditching area will be stripped and stockpiled. The ditch will initially be filled 	

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>up with scrap material from construction and then levelled with the stockpiled topsoil;</p> <ul style="list-style-type: none"> • Ditches or borrow pits that cannot be fully rehabilitated will be landscaped to minimize erosion and to avoid creating hazards for people and livestock; and • Landowners will be compensated according to the terms of lease agreements negotiated with them and the restoration actions agreed upon by the Contractor will be duly carried out. 	
2	Soil	To minimize the soil erosion	<ul style="list-style-type: none"> • All soil will be disposed off as desired and the site will be restored back to its original conditions; • Non-bituminous wastes from construction activities will be dumped in approved sites, in line with the legal prescriptions for dump sites, and covered; • As applicable and needed, plantation of grasses 	CC , SC and EC

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>and shrubs will be done at appropriate place where required;</p> <ul style="list-style-type: none"> • Excavations would be kept confined to the specified foundation spots as per the approved engineering drawings. Unnecessary excavations should be avoided; • Site camps for the resident labour should not be setup on the land earmarked for developing green belts and lawns; • Oils, lubricants, chemicals, and other listed hazardous materials should be stored safely at their designated spots, enclosures or store rooms, which should be safe from rainfall and away from any potential source of fire; • Septic tanks of adequate capacities should be constructed for receiving and treating wastewater from all temporary worksite toilets and at the temporary container offices, if any. The toilet wastewater should not be discharged 	

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>untreated onto the adjacent lands;</p> <ul style="list-style-type: none"> • All machineries and materials should be stored at the designated areas and compounds; • All the unspent and left over materials be completely removed offsite upon completion of construction and the site be restored to original or near to original condition; and • Washout from washing of equipment and gadgets should be drained into either a septic tank or a sand-gravel bed for removal of the grit and contaminants. 	
3	Land Acquisition, Resettlement and Compensation	To avoid/minimize land acquisition.	<ul style="list-style-type: none"> • Land management and providing judicious compensation to the affectees by providing sufficient budget in the project cost; • The process of land acquisition and compensation will be followed in a transparent manner. 	CC, SC and EC
4	Construction Camps/Camp Sites	To minimize loss of assets and vegetation due to labor	<ul style="list-style-type: none"> • All efforts during the construction stage should be made to minimize the removal of existing 	CC, SC, PIEDMC and

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
		movement.	<p>macro-plants at camp sites;</p> <ul style="list-style-type: none"> • The contractor(s) will provide plan for removal & rehabilitation of site upon completion; • Photographical and botanical inventory of vegetation before clearing the site; and • Compensatory plantation to be scheduled when construction works near end 	EC
5	Health and Safety	To minimize health risks.	<ul style="list-style-type: none"> • Obligatory insurance against accidents for labourers/workers; • Providing basic medical training to specified work staff and basic medical service and supplies to workers; • Layout plan for camp site, indicating safety measures taken by the contractor, e.g. fire fighting equipment, safe storage of hazardous material, first aid, security, fencing, and contingency measures in case of accidents; • Work safety measures and good workmanship practices are to be followed by the contractor to 	CC, SC and EC

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>ensure no health risks for labourers;</p> <ul style="list-style-type: none"> • Protection devices (ear muffs) will be provided to the workers doing job in the vicinity of high noise generating machines; • Provision of adequate sanitation, washing, cooking and dormitory facilities including light up to satisfaction; • Proper maintenance of facilities for workers will be monitored; • Provision of protective clothing for labourers handling hazardous materials, e.g. helmet, adequate footwear for bituminous pavement works, protective goggles, gloves etc; • Ensure strict use of wearing these protective clothing during work activities; • Elaboration of a contingency planning in case of major accidents; • Instruct foremen to strictly enforce the keeping out of non-working persons, particularly 	

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>children, off work sites;</p> <ul style="list-style-type: none"> • Adequate signage, lightning devices, barriers, yellow tape and persons with flags during construction to manage traffic at construction sites, haulage and access roads. 	
6	Borrow/ Open Pits		<ul style="list-style-type: none"> • Conversion of borrow pits into fish farms and care in selection of borrow areas; <ul style="list-style-type: none"> ▪ Necessary permits must be obtained for any borrow pits from the competent authorities; ▪ No excavations are allowed within distance of 500 m to ROW; ▪ In borrow pits, the depth of the pit will be regulated so that the sides of the excavation will have a slope not steeper than 1:4; ▪ Soil erosion along the borrow pit shall be regularly checked to prevent / mitigate impacts on adjacent lands; and ▪ In case borrow pits fill with water, measures have to be taken to prevent the creation of 	

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			mosquito-breeding sites.	
7	Air Quality	To minimize the air pollution.	<ul style="list-style-type: none"> • All vehicles, machinery, equipment and generators used during construction activities should be kept in good working condition and be properly tuned and maintained in order to minimize the exhaust emissions; • Blowing of dust from potential sources at the worksite should be avoided by shielding them from the exterior, for example using polythene curtains or raising a fence of corrugated sheets around areas of active constructions; • Blowing of dust and particulate matter from stockpiled loose materials (e.g. sand, soil) should be avoided either by sheeting them with tarpaulin or plastic sheets or by sprinkling them with light shower of water; • Open burning of solid waste from the contractor's camps should be strictly banned; • Preventive measures against dust should be 	PIEDMC & CC

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>adopted for on-site mixing and unloading operations. Regular water sprinkling of the site should be carried out to suppress excessive dust emission(s);</p> <ul style="list-style-type: none"> • Only good quality oils, petroleum products, additives and spares should be used in the machinery, generators, and the construction vehicles. Usage of used oil should be strictly prohibited; • Emissions from power generators and construction machinery are important point sources at the construction sites. Proper maintenance and repair is needed to minimize the hazardous emissions; and • NEQS applicable to gaseous emissions generated by construction vehicles, equipment and machinery should be enforced during construction works. 	
8	Noise and	To minimize the negative	<ul style="list-style-type: none"> • Selection of up-to-date and well maintained plant 	PIEDMC &

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
	Vibrations	impacts of noise and vibration.	<p>or equipment with reduced noise levels ensured by suitable in-built damping techniques or appropriate muffling devices;</p> <ul style="list-style-type: none"> • Confining excessively noisy work to normal working hours in the day, as far as possible; • Providing the construction workers with suitable hearing protection like ear cap, or earmuffs and training them in their use; • Preferably, restricting construction vehicles movement during night time; • Heavy machinery like percussion hammers and pneumatic drills should not be used during the night without prior approval of the client; • Vehicles and equipment used should be fitted, as applicable, with silencers and properly maintained; • Use of low noise machinery, or machinery with noise shielding and absorption; • Contractors should comply with submitted work 	CC

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>schedule, keeping noisy operations away from sensitive points; implement regular maintenance and repairs; and employ strict implementation of operation procedures;</p> <ul style="list-style-type: none"> Noise barriers in sensitive areas in the form of high boundary walls (concrete or wood), earth berms, etc. in front of schools, hospitals and mosques. 	
9	Solid Waste (Construction Waste and Hazardous Waste)	To minimize the Solid Waste.	<ul style="list-style-type: none"> Wastewater effluent from contractor's workshop and equipment washing yards would be passed through gravel/ sand beds to remove oil/ grease contaminants before discharging it into natural streams; An efficient and responsive solid waste management system should be devised for the entire duration of the construction phase. Such a system should provide for separate collection of different categories of constructional wastes. The wastes which will be reusable/recyclable 	CC, SC and EC

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>(iron bars, aluminum) should be sold to waste vendors and those which cannot be sold out (brick pieces) may be used as a filling material for leveling the depressions, subject to technical feasibility;</p> <ul style="list-style-type: none"> • Training of working force in the storage and handling of materials and chemicals that can potentially cause soil contamination; • Solid waste generated during construction and camp sites will be safely disposed in demarcated waste disposal sites and the contractor will provide a proper waste management plan; • Proper labelling of containers, including the identification and quantity of the contents, hazard contact information etc.; • Training of employees involved in the transportation of hazardous material regarding emergency procedures; 	

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<ul style="list-style-type: none"> • Providing the necessary means for emergency response on call 24 hours/day; • The sewage system for camps will be properly designed (pit latrines or, as required, septic tanks) to receive all sanitary wastewaters; • Lined wash areas will be constructed within the camp site or at site, for the receipt of wash waters from construction machinery; • Use of pesticides in nurseries will be done deemed necessary and suggested by the experts; • Insecticides that are less toxic to human health should be used; • Construction workers and supervisory staff should be encouraged and educated to practice waste minimization, reuse and recycling to reduce quantity of the waste for disposal; • Prohibit open burning of solid waste. C&D waste shall be dumped in the approved depression sites; 	

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<ul style="list-style-type: none"> • Recyclable packaging waste shall be sorted out and sold after separations; • Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary waste generation; • Provide sufficient waste disposal points and regular collection for disposal; • Any unused chemical bin with remaining functional capacity shall be recycled. 	
10	Green house gas	To minimize the negative impacts of green house gases.	<ul style="list-style-type: none"> • Regular motioning of the vehicles for engine efficiency; • Avoid any unnecessary work and transportation; • Alternative energy resources should be considered where possible; • NEQS applicable to gaseous emissions generated by construction vehicles, equipment and machinery should be enforced during construction works. 	

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
11	Surface and Ground Water	To minimize surface and ground water contamination	<ul style="list-style-type: none"> • Protection of groundwater reserves from any source of contamination such as the construction and oily waste that will degrade its potable quality; • Regular water quality monitoring according to determined sampling schedule; • Prohibit washing of machinery and vehicles in surface waters, provide sealed washing basins and collect wastewater in sedimentation/retention pond; • Continuous withdrawal and over pumping of groundwater should be avoided. Instead, intermittent pumping be carried out to conserve the groundwater resources; • Take precautions construct temporary or permanent devices to prevent water pollution due to increased siltation; and • Wastes must be collected, stored and taken to approve disposal site. Construction camps shall 	CC, EC and SC

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>not be located near surface water bodies and groundwater bodies to avoid bacterial contamination of sub surface water</p> <ul style="list-style-type: none"> • Storage yards, Batching plants and bitumen plants shall not be located near water bodies to avoid non-point pollution • Construction material such as concrete and oil etc. should be properly stored to avoid any chance of contamination of subsurface or surface water. • Temporary cut-off drains shall be constructed around large stockpiles to regulate the sediment laden runoff • Temporary Best management Practices (BMPs) like vegetated strips etc. shall be adopted near water bodies to partially treat the runoff during construction 	
12	Flora	To minimize the cutting of trees	<ul style="list-style-type: none"> • Camp sites should be established on waste/barren land rather than social and 	CC, SC and EC

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>agricultural land. However, if such type of land is not available, it will be ensured that minimum clearing of the vegetation is carried out and minimum damage is caused to trees and undergrowth;</p> <ul style="list-style-type: none"> • Construction vehicles, machinery and equipment will remain confined within their designated areas of movement; • The Contractor's staff and labour will be strictly directed not to damage any vegetation such as trees or bushes; • Contractor will provide gas cylinders at the camps for cooking purposes and cutting of trees/bushes for fuel will not be allowed; and • A tree plantation program will be formulated in consultation with the PIEDMC at available sites. 	
13	Fauna	To minimize the negative impacts on fauna species	<ul style="list-style-type: none"> • Overall, the impact on fauna of the area is insignificant in nature 	

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
14	Resource Conservation	To minimize the use of natural resources	<ul style="list-style-type: none"> • Wastage of water should be reduced by training the workers involved in water use; • Wastage of water should be controlled through providing proper valves and through controlling pressure of the water; • Water jets and sprays should be used for watering surfaces rather than using overflow system; • Source of water should be carefully selected. Water use should not disturb the existing community water supplies; • Unnecessary equipment washings should be avoided; • Use minimum amount of bitumen for road surfacing. 	
15	Energy efficiency		<ul style="list-style-type: none"> • Ensure adequate insulation to reduce heat loss through batching/concrete plants; • Regularly monitor CO and CO2 content of the 	

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>flue gases to verify that combustion systems are using practical excess air volumes;</p> <ul style="list-style-type: none"> • Maintain clean heat transfer surfaces in batching/concrete plant; • Regular service of the vehicles and bathing plants will reduce the mechanical losses of energy. 	
16	Public Inconvenience	To minimize public inconvenience	<ul style="list-style-type: none"> • Provide proper diversions to the traffic and their maintenance have to be assured near the sites of construction . • Provision of proper sign boards, especially before diversion, for smooth flow of traffic • Construction vehicles, machinery and equipment shall move or be stationed in the designated ROW to avoid un-necessary compaction of nearby soil • Measures of disruption of public utilities shall be adopted 	

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
17	Lifestyle and Culture	To minimize cultural conflicts	<ul style="list-style-type: none"> • Timely public notification and announcement of mobilizing equipment; • Local labour should be employed for construction works; and • Water supply and sanitation facilities, Contractor's workforces should exacerbate the existing shortages and environmental hazards; contractor should primarily seek their own sources of water in due distance (min. 1 km) from local user's wells. 	PIEDMC
18	Heavy Vehicles on the Existing Road Network & Sensitive Receptors	To minimize negative impacts on existing road and surroundings.	<ul style="list-style-type: none"> • Any vehicle with an open load carrying area used for transport of potentially dust producing materials shall have properly fitted side and tailboards. Materials having potential to produce dust shall not be loaded to a level higher than the side and tail boards and shall be covered with clean tarpaulin in good condition. The tarpaulin shall be properly secured and extended 	CC, SC, Traffic Police Department, and EC

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>to at least 300 mm over the edges of the sideboard and tailboard;</p> <ul style="list-style-type: none"> • The Contractor shall not use any vehicles either on or off road with grossly excessive noise pollution. Noise mufflers shall be installed and maintained in good condition on all motorized equipment under the control of the contractor; • Timely maintenance of affected roads to avoid any inconvenience to the road commuters. 	
19	Traffic management	To minimize traffic problems in the project area	<ul style="list-style-type: none"> • Proper traffic management plan will be needed to avoid traffic jams/public inconvenience; • Movement of vehicles carrying construction materials should be restricted during the daytime to reduce traffic load and inconvenience to the local residents; • Coordinated planning of traffic diversions by the traffic police and the Transport Department in accordance with the construction programme with advance warnings to the affected residents 	CC, SC, Traffic Police Department, and EC

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>and road users;</p> <ul style="list-style-type: none"> • Construction vehicles, machinery and equipment will move or be stationed in the designated ROW to avoid un-necessary compaction of soil. • Availability of continuous services of the police in the diversion and control of traffic; and • The executing agency is required to maintain liaison between the Motorway/ Traffic Police, local residents/ travelers and the contractor to facilitate traffic movement during construction stage. 	
20	Wastage of fertile plough layer	To minimize the wastage of fertile plough layer	<ul style="list-style-type: none"> • The waste generated from the camp site will be disposed off through Municipal Committee; • Burning of waste will be prohibited; and • Solid Waste will be safely disposed in demarcated waste disposal sites and the contractor will provide a proper waste management plan. 	PIEDMC

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
Operational Phase				
1	Flora	To minimize the cutting of trees	<ul style="list-style-type: none"> No negative impacts are envisaged on the flora during the operational phase 	PIEDMC
2	Surface and Groundwater	To minimize surface and ground water contamination	<ul style="list-style-type: none"> CETP shall be operated as per standard operating procedures (SOPs) to follow NEQS. Especial concentrations shall be paid to sludge treatment and handling; Implementation of bylaws of individual treatment plants at industrial level shall be ensured Industries shall be bound to submit monitoring reports of their effluents regularly; Monitoring plans for water quality analysis of the CETP effluent, Sem Nullah and groundwater shall be prepared; Best Management Practices (BMPs) shall be maintained to ensure their effective function to treat nonpoint source water pollution. 	PIEDMC

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
3	Air Quality	To minimize the air pollution	<ul style="list-style-type: none"> • Bylaws related installation of Air Pollution Control (APC) equipment shall be strictly implemented; • Industries shall be bound to submit monitoring reports of their air pollution sources and occupational environment regularly; • Regular monitoring of the ambient air shall be carried out; • Regular road maintenance to ensure good surface condition; • Regular vehicle check to control/ensure compliance with NEQS; • More green areas and trees should be planted in that region which would suck up the polluted air. 	PEPA and PIEDMC
4	Soil Contamination	To minimize the soil contamination	<ul style="list-style-type: none"> • Each industry shall be bound to submit the inventory of use of hazardous chemicals, their 	PIEDMC

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<p>use and final disposal including measures to control special waste;</p> <ul style="list-style-type: none"> • Signage shall be carried out to regulate the routes of especial waste disposal to avoid the risks of spillages. 	
5	Solid Waste	To minimize the solid waste	<ul style="list-style-type: none"> • SWM system shall be operated as per SOPs and improved with time to time; • Primary collection and storage of solid waste shall be performed in the closed containers; • Secondary collection shall be done in the compactor trucks; • Only unusable trash material shall be disposed of into the landfill site and all the reusable material shall be separated, processed and sold accordingly; • People shall be educated to waste lesser and avoid use of disposable items. 	
6	Occupational Health and Safety	To minimize health risks	<ul style="list-style-type: none"> • Obligatory insurance against accidents for labourers/workers; 	

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<ul style="list-style-type: none"> • Providing basic medical training to specified work staff and basic medical service and supplies to workers; • Layout plan for camp site, indicating safety measures taken by the contractor, e.g. fire fighting equipment, safe storage of hazardous material, first aid, security, fencing, and contingency measures in case of accidents; • Work safety measures and good workmanship practices are to be followed by the contractor to ensure no health risks for labourers; • Protection devices (ear muffs) should be provided to the workers doing job in the vicinity of high noise generating machines; • Provision of adequate sanitation, washing, cooking and dormitory facilities including light up to satisfaction; • Proper maintenance of facilities for workers will be monitored; 	

<i>Sr. No.</i>	<i>Parameters</i>	<i>Target</i>	<i>Mitigation</i>	<i>Responsibility</i>
			<ul style="list-style-type: none"> • Provision of protective clothing for labourers handling hazardous materials, e.g. helmet, adequate footwear for bituminous pavement works, protective goggles, gloves etc; • Ensure strict use of wearing these protective clothing during work activities; • Elaboration of a contingency planning in case of major accidents; • Instruct foremen to strictly enforce the keeping out of non-working persons, particularly children, off work sites; and • Adequate signage, lightning devices, barriers, yellow tape and persons with flags during construction to manage traffic at construction sites, haulage and access roads. 	

KEY

DC Consultant

PIEDMC Punjab Industrial Estates Development And Management Company

SC Supervision Consultant

PEPA Environment Protection Agency

CC Construction Contractor

EC Environmental Committee

7.4 Environmental Monitoring

Environmental Monitoring is undertaken during both the construction and operational phases to ensure the effectiveness of the proposed mitigation measures. Certain environmental parameters are selected and quantitative analysis is carried out. The results of analysis are compared with the guidelines; standards and pre-project conditions to investigate whether the Environmental Management Plan (EMP) and its implementation are effective for the mitigation of impacts or not. Parameters to be analyzed during construction and operation of the project and responsibilities for monitoring and reporting have been discussed below. A cost estimate for this measurement of parameters is given in **Table 7.2**.

7.4.1 Construction Phase

a) Air Quality

Air quality monitoring will be carried out as per monitoring plan during the construction phase at the representative locations.

The following parameters will be monitored:

- CO
- NO_x
- SO_x
- PM₁₀

b) Ground Water Quality

Ground water quality monitoring will be done during the construction phase at the representative locations. The following parameters will be monitored:

- Total Coliforms
- Fecal E.Coli
- Total Colonial Count
- Fecal Enterococci
- pH Value
- Total Dissolved Solids (TDS)
- Total Hardness
- Nitrate
- Chloride
- Sodium

c) Wastewater Quality

Wastewater quality monitoring will be done during the construction phase at the representative locations. The following parameters will be monitored:

- pH
- Dissolved Oxygen
- Total Suspended Solids (TSS)
- Total Dissolved Solids (TDS)
- Alkalinity
- BOD₅
- COD
- Turbidity

d) Noise Levels

The noise level monitoring will be carried out as per monitoring plan at representative locations in the project area.

7.4.2 Operational Phase

a) Air Quality

Air quality monitoring will be done biannually during the operational phase at the representative locations. The following parameters will be monitored:

- CO
- NO_x
- SO₂
- PM₁₀

b) Ground Water Quality

Ground water quality monitoring will be done biannually during the operational phase at the representative locations. The following parameters will be monitored:

- Total Coliforms
- Fecal E.Coli
- Total Colonial Count

- Fecal Enterococci
- pH
- Total Dissolved Solids (TDS)
- Total Hardness
- Nitrate
- Chloride
- Sodium

c) Wastewater Quality

Wastewater quality monitoring will be carried out biannually during the operational phase at the representative locations and the following parameters will be monitored:

- pH
- Dissolved Oxygen
- Total Suspended Solids (TSS)
- Total Dissolved Solids (TDS)
- Alkalinity
- BOD₅
- COD
- Turbidity

d) Noise Levels

The noise level monitoring will be carried out biannually at representative locations in the project area.

7.4.3 Responsibilities for Monitoring and Reporting

The EC will be responsible for environmental monitoring and reporting throughout the construction and operation phases. A monitoring report will be prepared on monthly basis and one comprehensive report will be prepared annually. Contents of the report will include results of environmental monitoring in comparison to the standards for the various parameters, location and sampling time along with recommendations. One report will be submitted during the construction phase to each of the following authorities and institutions: (i) PIEDMC and (ii) PEPA whereas, one report will be submitted to PEPA during the operational phase.

Table 7.2: Budget Estimate for Environmental Monitoring During the Construction and Operation Phases

Components	Parameters	No. of Samples (No. of Samples x Frequency x Year)	Frequency	Responsibility	Duration	Cost (Rs.)
Construction Phase (1 year)						
Air Quality	CO, NO _x , SO _x , PM ₁₀	1x4x1 = 4	After every 03 months	Contractor/ EC	24 hours	1,22,000/-
Ground Water Quality	Total Coliforms, Fecal E. Coli, Total Colonial Count, Fecal Enterococci, pH, TDS, Total Hardness, Nitrate, Chloride, Sodium	1x4x1 = 4	After every 03 months	Contractor/ EC	-	78,000/-
Surface Water Quality	pH, Dissolved Oxygen, TSS, TDS, Alkalinity, BOD ₅ , COD, Turbidity	1x4x1 = 4	After every 03 months	Contractor/EC	-	66,000/-
Noise Level	-	1x4x1 = 4	After every 03 months	Contractor/EC	24 hours	20,000/-
TOTAL						286,000/-
Operation Phase (1 year)						
Air Quality	CO, NO _x , SO _x , PM ₁₀	1x2x1 = 2	Biannually	PIEDMC	24 hours	61,000/-

Ground Water Quality	Total Coliforms, Fecal E. Coli, Total Colonial Count, Fecal Enterococci, pH, TDS, Total Hardness, Nitrate, Chloride, Sodium	1x2x1 =2	Biannually	PIEDMC	-	39,000/-
Surface Water Quality	pH, Dissolved Oxygen, TSS, Alkalinity, BOD ₅ , COD, Turbidity	1x2x1 = 2	Biannually	PIEDMC	-	33,000/-
Noise Level	-	1x2x1 = 2	Biannually	PIEDMC	24 hours	10,000/-
TOTAL						143,000/-
GRAND TOTAL						429,000/-

KEY

EC – Environmental Committee

PIEDMC–Punjab Industrial Estates Development And Management Company

7.6 Environmental Technical Assistance and Training Plan

In order to raise the level of professional and managerial staff, there is a need to upgrade their knowledge in the related areas. The EC should play a key role in this respect and arrange the trainings.

An environmental and social training and Technical Assistance (TA) program is to be carried out before the implementation of the project. Contractor's environmental awareness and appropriate knowledge of environmental protection is critical to the successful implementation of the EMP because without appropriate environmental awareness, knowledge and skills required for the implementation of the mitigation measures, it would be difficult for the Contractor(s) workforce to implement effective environmental protection measures. A suitable training program is proposed to train the Contractor(s) staff who will be involved in the Construction Phase and the professional staff from the client involved at the operational stage of the project.

The PIEDMC will engage TA consultant to manage the environmental training program. The objective of the TA will be, to help in establishment of appropriate systems, and to train senior PIEDMC staff and EC responsible for managing environment, operations, and planning, who can then impart training at a broader level within and outside the PIEDMC (i.e., the training of trainers). The TA consultant will organize training courses for PIEDMC and contractor staff to train them in specialized areas such as air and noise pollution monitoring; develop environment operation manuals in consultation with the PEPA. The details of this training program are presented in Table 7.7

Table 7.7: Personnel Training Program/ TA Services

Provided by	Contents	Trainees/Events	Duration
TA consultants/ organizations specializing in environmental	Short seminars and courses on: Environmental laws and regulations, daily	Three seminars for Contractor project staff and PIEDMC	2 days

Provided by	Contents	Trainees/Events	Duration
management and monitoring	monitoring and supervision		
TA consultants/ organizations specializing in social management and monitoring	Short seminars and courses on: Social awareness	Three seminars for project staff dealing in Social/lands matters	2 days
TA consultants/ organizations specializing in Occupational, health and safety issues	Short lectures relating to Occupational Safety and Health	Two seminars for contractor's staff	2 days

7.7 Environmental Monitoring, Mitigation and Training Cost

The cost required to effectively implement the mitigation measures is important for the sustainability of the Project both in the construction and operation stages of the Project.

These costs are summarized as below:

Environmental Monitoring Cost	=	429,000/-
Environmental Training Cost	=	100,000/- (lump sum)
Total	=	529,000/-

LIST OF ABBREVIATIONS

PIEDMC	Punjab Industrial Estates Development and Management Company
NESPAK	National Engineering Services Pakistan (Pvt.) Ltd.
M-2	Lahore-Islamabad Motorway
PEPA	Punjab Environmental Protection Act
EPA	Environmental Protection Agency
EA	Environmental Approval
EIA	Environmental Impact Assessment
GoP	Government of Pakistan
NEQS	National Environmental Quality Standards
LGO	Local Government Ordinance
EPZ	Export Processing Zones
QAAP	Quaid-e-Azam Apparel Park
WAPDA	Water And Power Development Authority
MGD	Million Gallon per Day
CETP	Combined Effluent Treatment Plant
m	Meter
KVA	Kilo Volt Ampere
SNGPL	Sui Northern Gas Pipe Lines Limited
MS	Mild Steel
PTCL	Pakistan Telecommunication Corporation Limited
DI	Ductile Iron
HDPE	High Density Polyethylene

MI	Mild Steel
PVC	Polyvinyl Chloride
BHU	Basic Health Units
HH	Household
SUPARCO	Pakistan Space & Upper Atmosphere Research Commission

Table 6.1
EIA of Quaid-e-Azam Apparel Park, Sheikhpura

Construction Phase

Sr. No.	Environmental Component Project Activities	Physical Environment					Biological Environment		Socioeconomic Environment						
		Topography	Soil	Air Quality	Noise & Vibration	Groundwater Quality/Surface Water Quality	Flora	Fauna	Health & Safety for Public and Worker	Disruption of Public Utilities	Employment	Public Inconvenience	Cultural/Religious Values	Benefits to Community	Traffic Management
1	Site Clearance	LA	O	LA	MA	LA	HA	MA	MA	LA	B	LA	HA	NA	LA
2	Construction camps	O	LA	O	O	O	LA	LA	LA	NA	O	LA	O	NA	O
3	Movement of construction machinery/vehicles	O	LA	MA	MA	O	MA	MA	LA	O	B	MA	LA	NA	MA
4	Relocation of the Utilities	O	LA	LA	LA	O	O	MA	LA	MA	B	MA	LA	HA	LA
5	Excavation	LA	MA	MA	MA	LA	HA	HA	MA	LA	B	MA	LA	O	LA
6	Earthwork/concrete work operations	LA	LA	MA	MA	O	MA	MA	MA	NA	B	LA	LA	NA	LA
7	Operation of batching plants	O	LA	MA	MA	LA	LA	LA	LA	NA	B	LA	O	NA	LA
8	Solid Waste Management	O	LA	LA	O	LA	O	LA	LA	NA	B	LA	NA	MA	O
9	Disposal of Non Reuseable C&D Waste	O	O	LA	O	LA	O	LA	LA	NA	B	LA	NA	MA	O
10	Handling/Storage of fuels/chemicals	O	LA	LA	O	LA	LA	LA	LA	NA	B	NA	NA	NA	O
11	Landscaping and Horticulture	B	B	B	B	NA	B	B	O	NA	B	NA	NA	B	NA

Legend

LA - Low Adverse

MA - Medium Adverse

HA - High Adverse

B - Beneficial

O - Insignificant / no impact

NA - Not Applicable

Table 6.2
EIA of Quaid-e-Azam Apparel Park, Sheikhupura

Operation Phase

Sr. No.	Project Activities	Physical Environment				Biological Environment				
		Soil	Air Quality	Noise	Groundwater Quality	Flora	Fauna	Employment	Community Development	HES Issues
1	Construction of industries	LA	MA	MA	LA	MA	MA	B	B	LA
2	Operation of industries	LA	MA	MA	LA	MA	MA	B	B	LA
3	Solid Waste Management	LA	LA	LA	LA	MA	LA	B	B	LA
4	Storage/Use of chemicals	LA	LA	O	LA	O	O	B	NA	LA
5	Maintenance of Landscaping	B	B	LA	O	B	B	B	B	B

Legend

LA - Low Adverse
B - Beneficial

MA - Medium Adverse
O - Insignificant / no impact


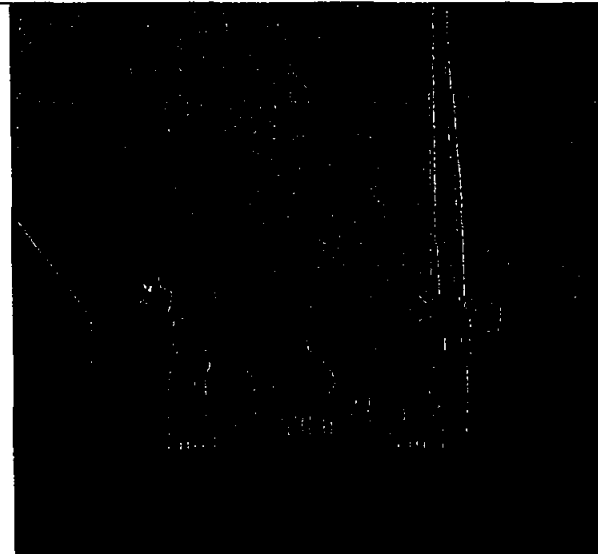
HA - High Adverse
NA - Not Applicable




Quaid-e-Azam Apparel Park, Sheikhpura

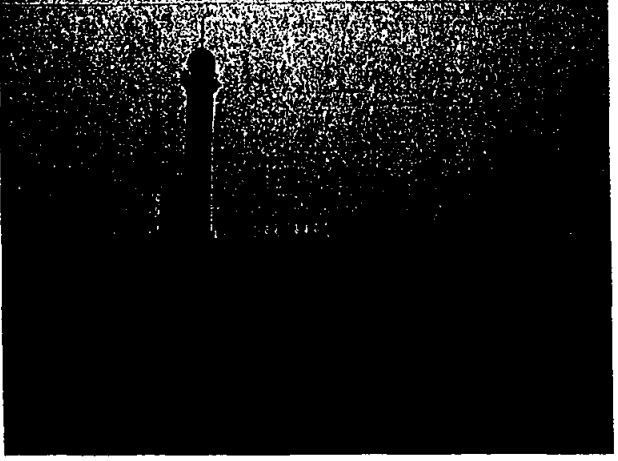

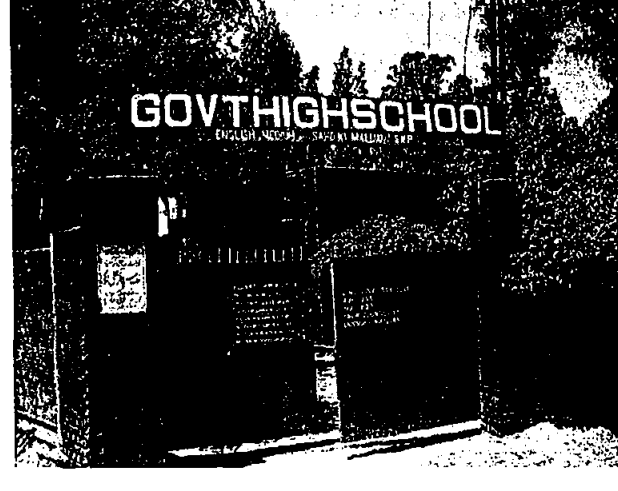
LIST OF SENSITIVE RECEPTORS

Sr. No.	Name of Settlement	Educational Facility	Health Facility	Archeological Site/Recreational	Shrine	Mosque
1	Qayam Pur	Government Girls Elementary School			Baba Shamas Shah Wali	Jamia Ghosia
		Government Primary School				Jamia Masjid Gillani
2	Ladhe Ki Mallian	Government Boys Primary School			Baba Lakhan Da Dada	Jamia Masjid Ahle hadees
					Peer Enayat Shah Wali	
					Baba Roray Shah	
3	Bomb Mallian	Government Primary School				Jamia Masjid
4	Saho Ki Mallian	Government Girls Middle School	Basic Health Unit			
		Government High School				
5	Khokar Ki Mallian	Government Primary School				Jamia Masjid Ahle Sunnat
6	Mandiyala Virkan	Government Primary School				Jamia Majid Saddique-e-Akbar

Photo log of Sensitive Receptors

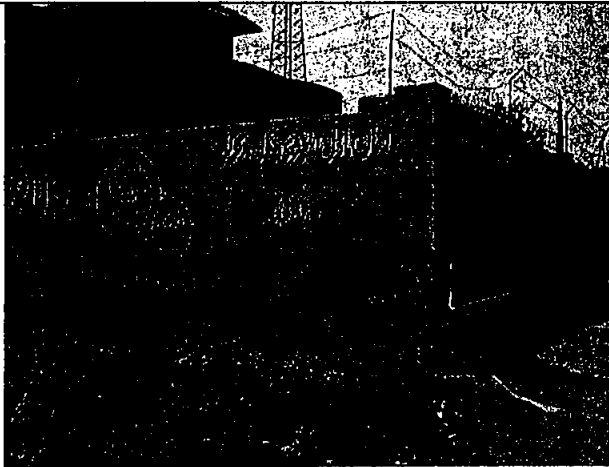
Sensitive Receptor	Description
	<p>Government Girls Elementary School Qayam Pur</p>
	<p>Jamia Masjid in the vicinity of the Project Area</p>

	<p>Darbar Baba Peer Shamas Shah Wali located in village Qayam Pur</p>
	<p>Jamia Masjid Gillani located in village Qayam Pur</p>
	<p>A view of Urooj Public Model Elementary School located in Village Bomb Mallian</p>

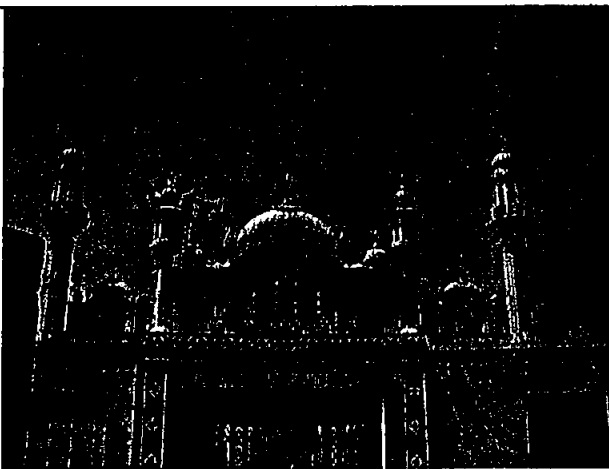
	<p>Jamia Mosque in village Bomb Mallian</p>
	<p>Government Primary School Bomb Mallian</p>
	<p>Government High School Saho ki Mallian</p>





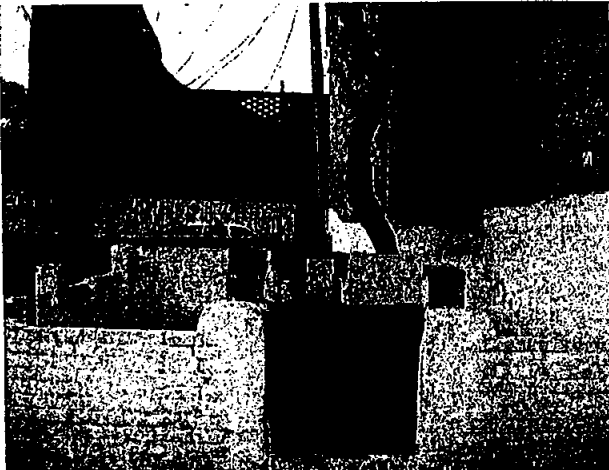
Government Girls Middle
School Saho Ki Mallian

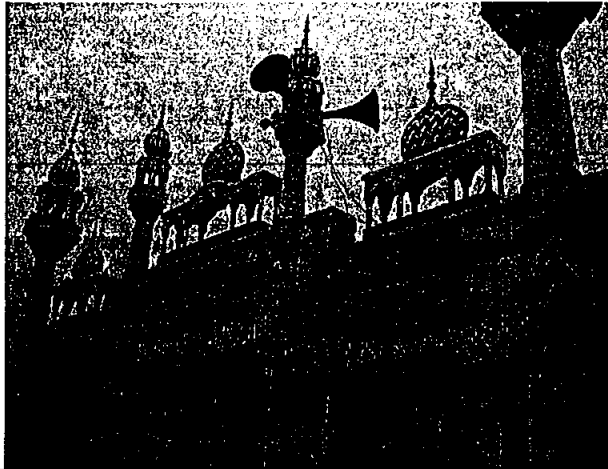


Raman Model Elementary
School For Girls located in
Village Saho ki Mallian



Jamia Masjid Ghosia Located
in Village Saho Ki Mallian

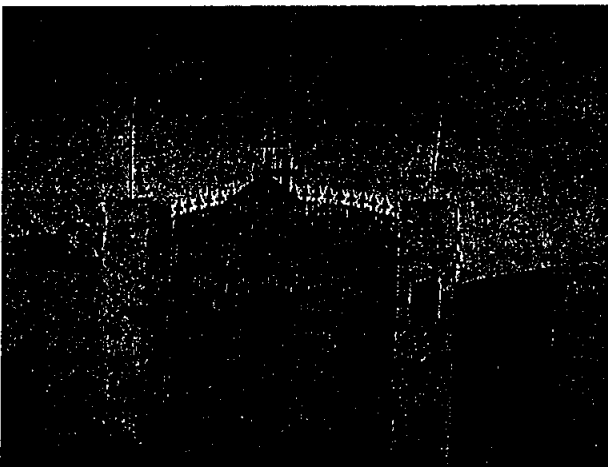
	<p>Government Boys Primary School located in Village Ladhe Ki Mallian</p>
	<p>Darbar Baba Lakhan Da Dada Located in Village Ladhe Ki Mallian</p>
	<p>Darbar Enayat Shah Wali Located in Village Ladhe Ki Mallian</p>





Jamia Masjid Located in
Village Ladhe Ki Mallian



Shrine of Baba Peer Roray
Shah Located in Village
Ladhe ki Mallian



Church Located in Village
Khokhar Ki Mallian

	<p>Jamia Masjid Located in Village khokhar Ki Mallian</p>
	<p>Government Primary School Located In Village Khokhar Ki Mallian</p>

SAM

CONSULTANTS

AIR QUALITY RESULTS **(QUAID-E-AZAM APPAREL PARK)**



Figure 1: Air Quality Sampling Locations Map in Sheikhupura

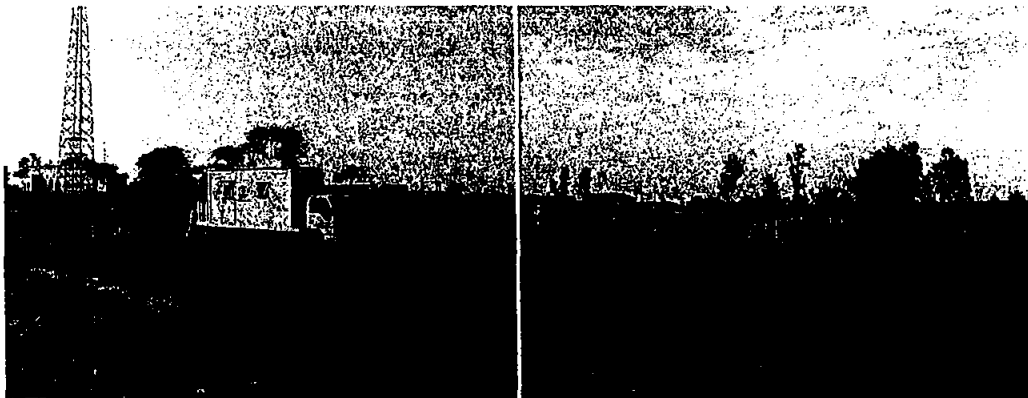


Figure 2: Environmental Monitoring at Chichu Ki Malian, Sheikhupura

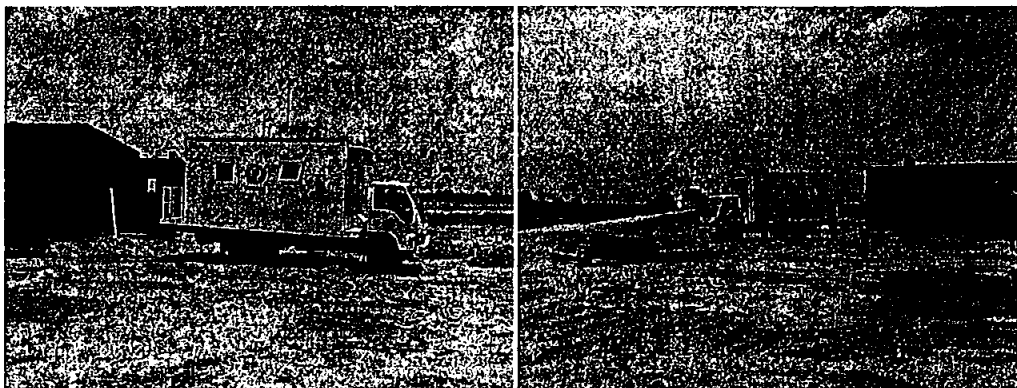


Figure 3: Environmental Monitoring at Bamban Kalan, Sheikhupura

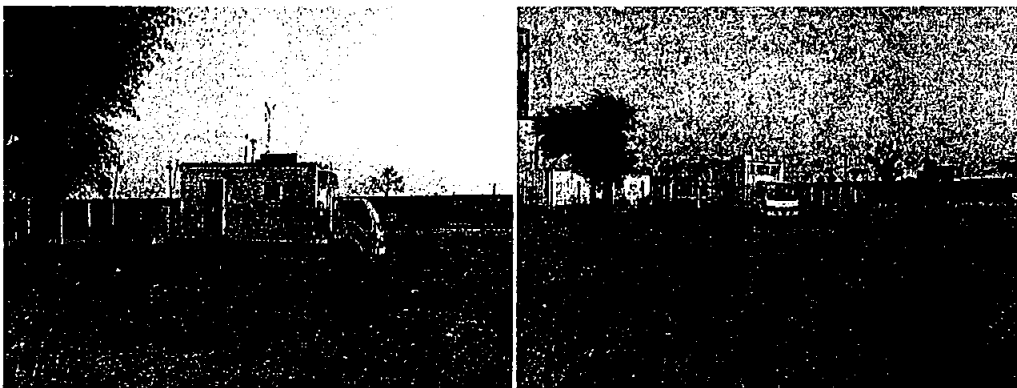


Figure 4: Environmental Monitoring at Motorway Campsite, Sheikhupura

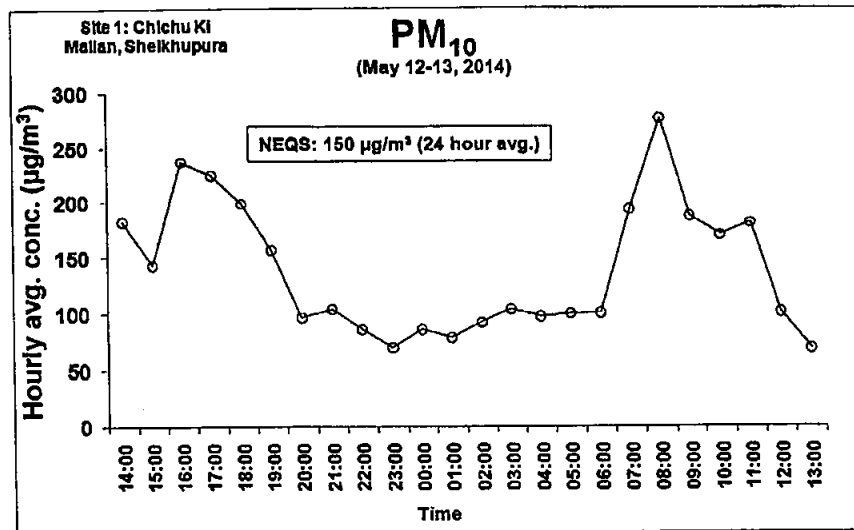


Figure 5: Hourly variation of Particulate Matter (PM₁₀) at Chichu Ki Mallan, Sheikhpura

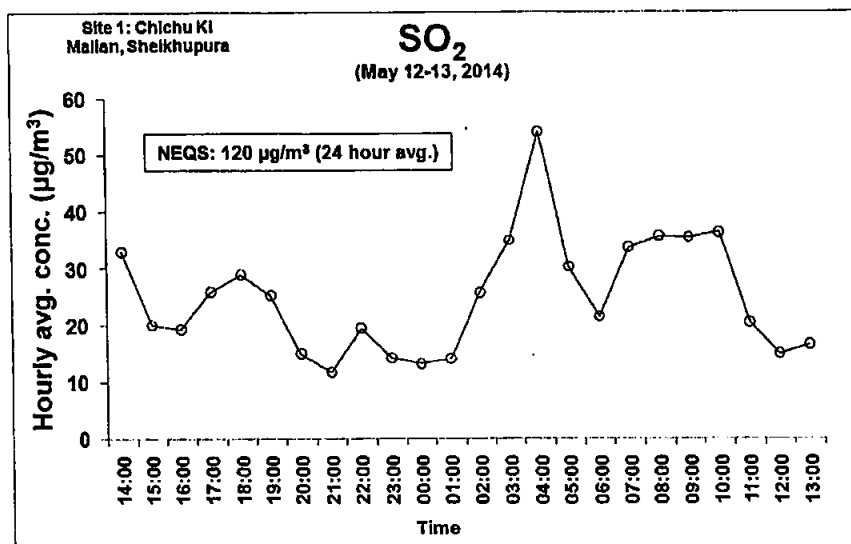


Figure 6: Hourly variation of Sulphur dioxide (SO₂) at Chichu Ki Mallan, Sheikhpura

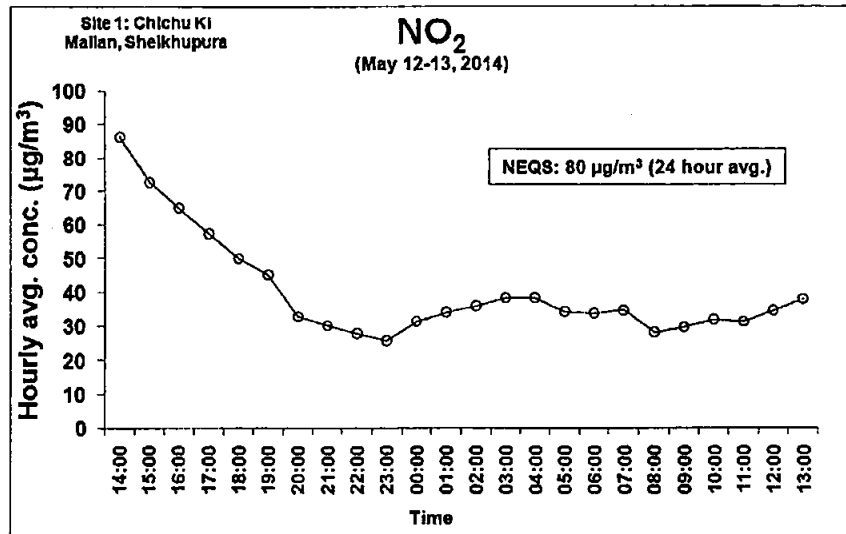


Figure 7: Hourly variation of Nitrogen dioxide (NO₂) at Chichu Ki Mallan, Sheikhpura

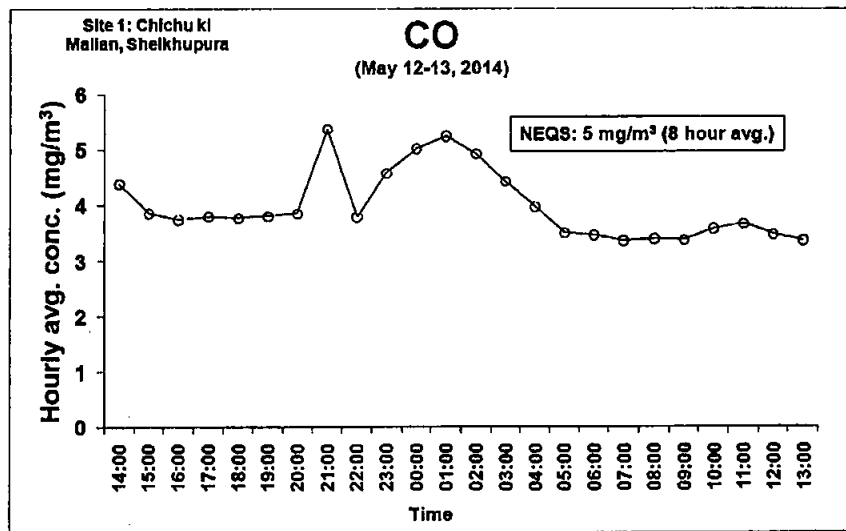


Figure 8: Hourly variation of Carbon Monoxide (CO) at Chichu Ki Mallan, Sheikhpura

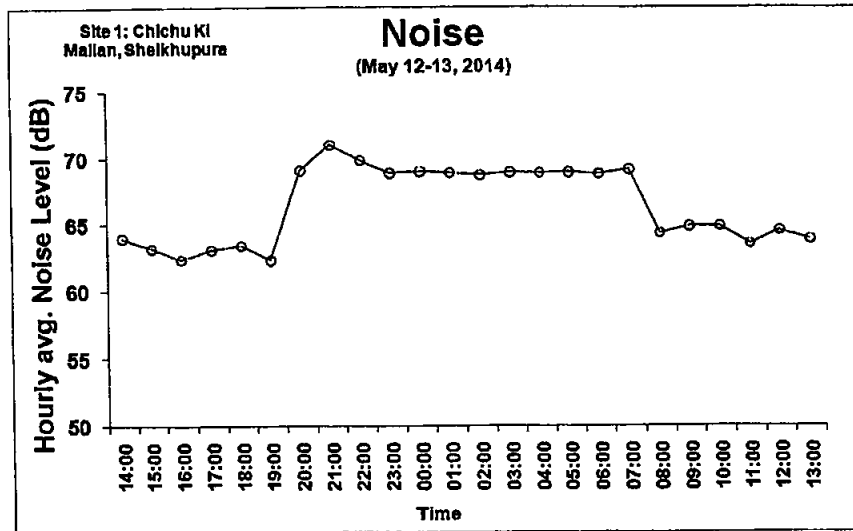


Figure 9: Hourly variation of Noise at Chichu Ki Malian, Sheikhpura

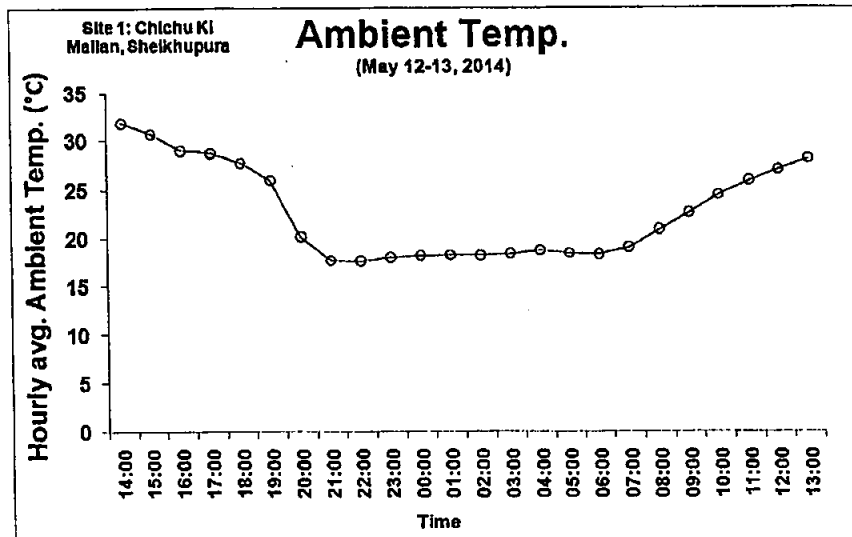


Figure 10: Hourly variation of Ambient Temperature at Chichu Ki Malian, Sheikhpura

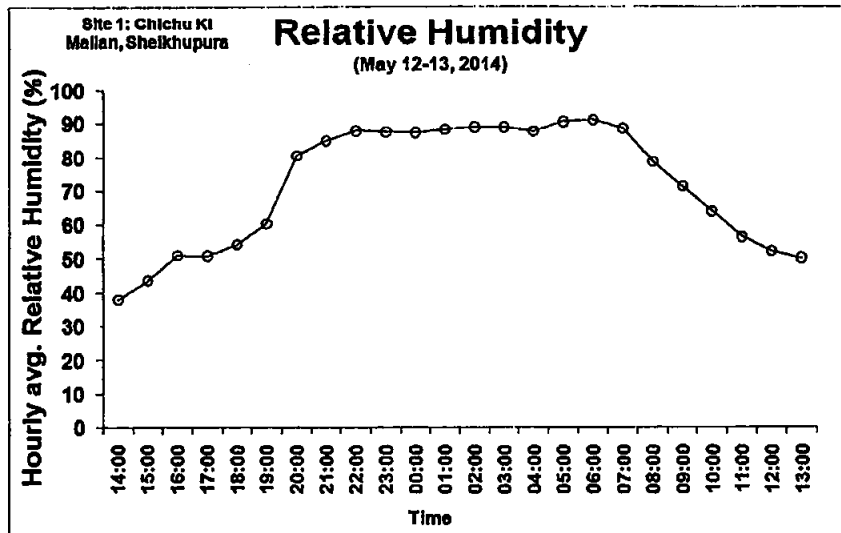


Figure 11: Hourly variation of Relative Humidity at Chichu Ki Malian, Sheikhpura

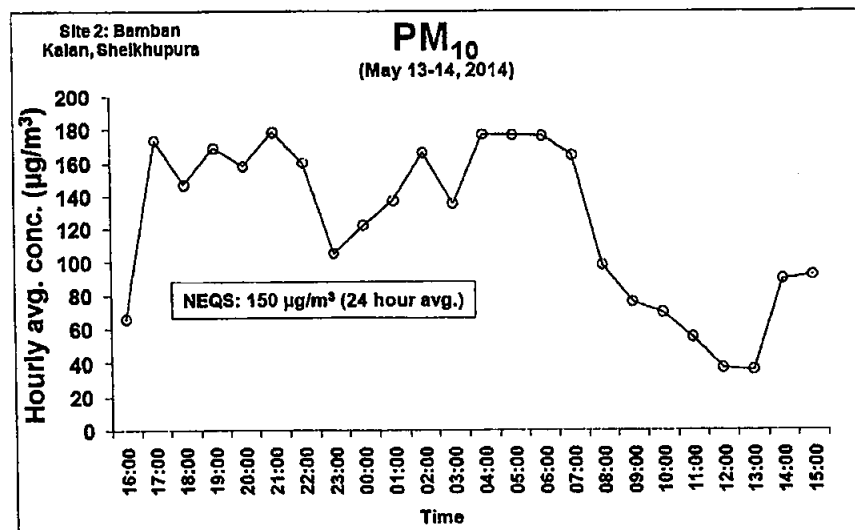


Figure 12: Hourly variation of Particulate Matter (PM₁₀) at Bamban Kalan, Sheikhpura

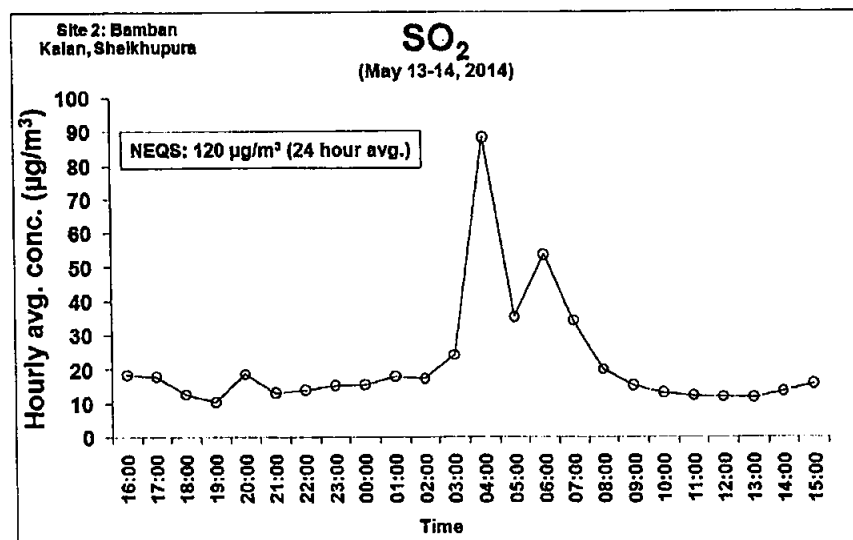


Figure 13: Hourly variation of Sulphur dioxide (SO₂) at Bamban Kalan, Sheikhpura

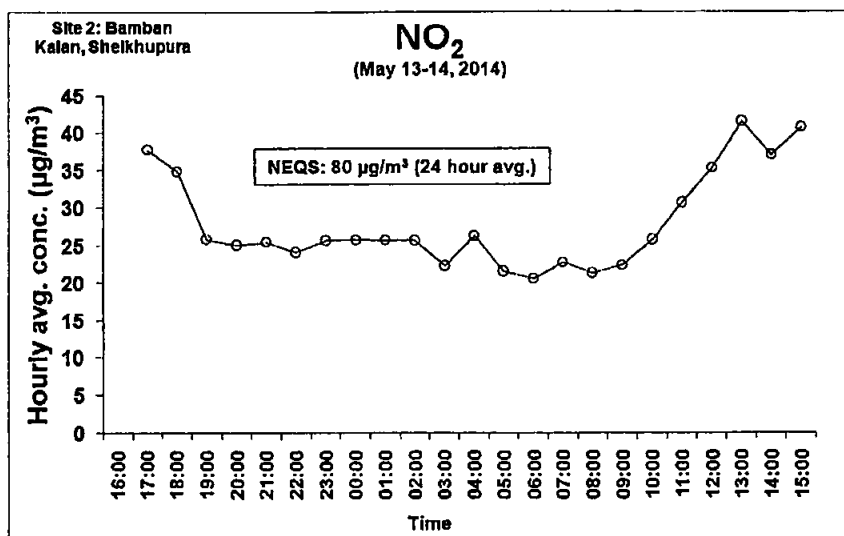


Figure 14: Hourly variation of Nitrogen dioxide (NO₂) at Bamban Kalan, Sheikhupura

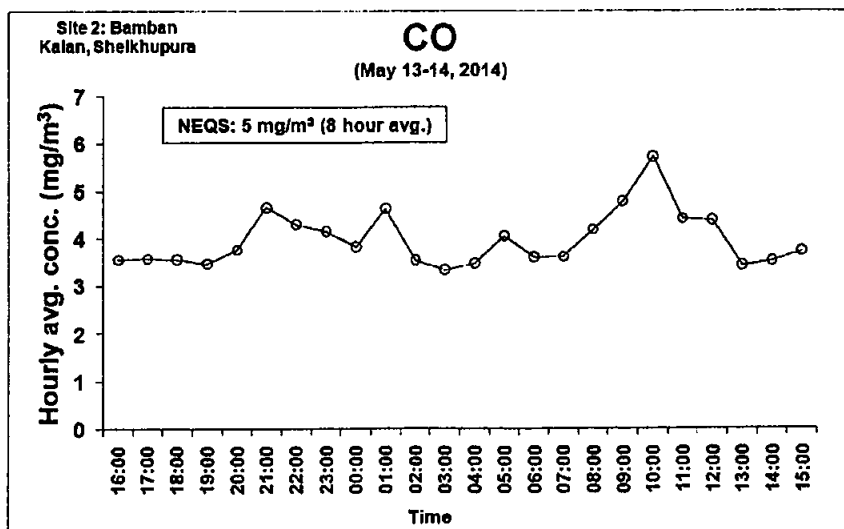


Figure 15: Hourly variation of Carbon Monoxide (CO) at Bamban Kalan, Sheikhupura

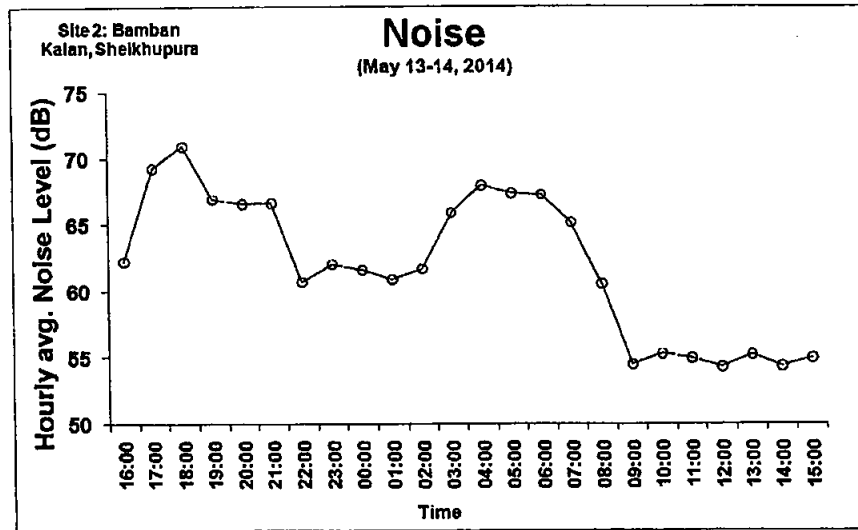


Figure 16: Hourly variation of Noise at Bamban Kalan, Sheikhpura

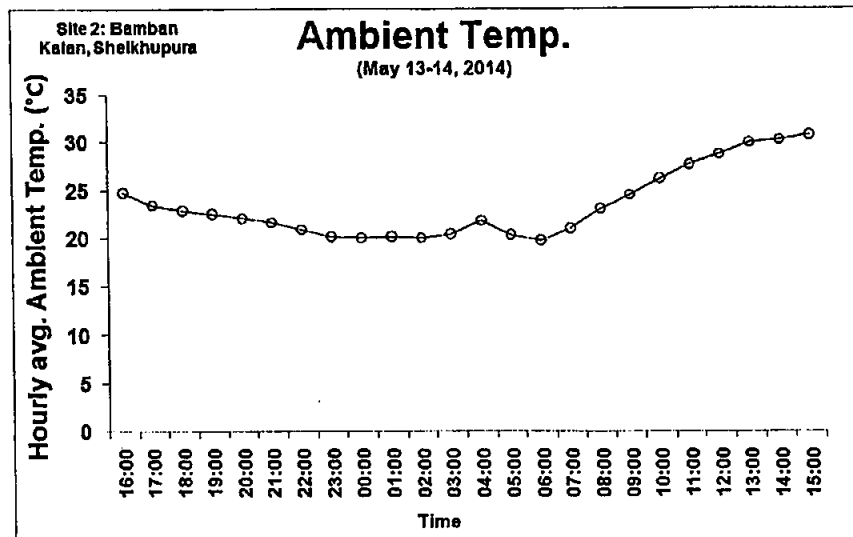


Figure 17: Hourly variation of Ambient Temperature at Bamban Kalan, Sheikhpura

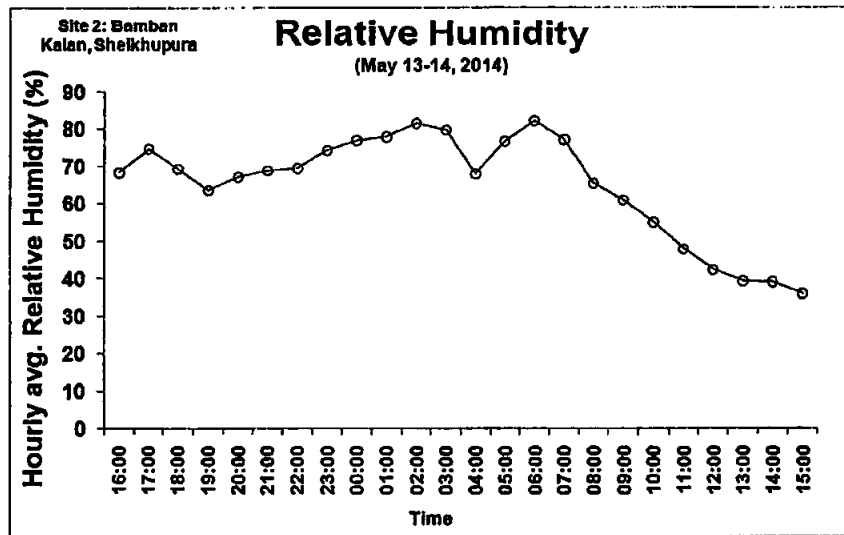


Figure 18: Hourly variation of Relative Humidity at Bamban Kalan, Sheikhpura

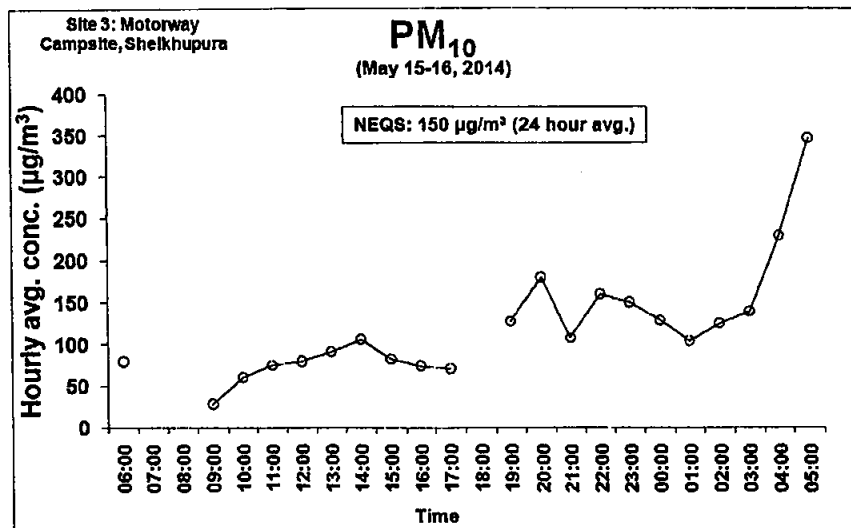


Figure 19: Hourly variation of Particulate Matter (PM10) at Motorway Campsite, Sheikhupura

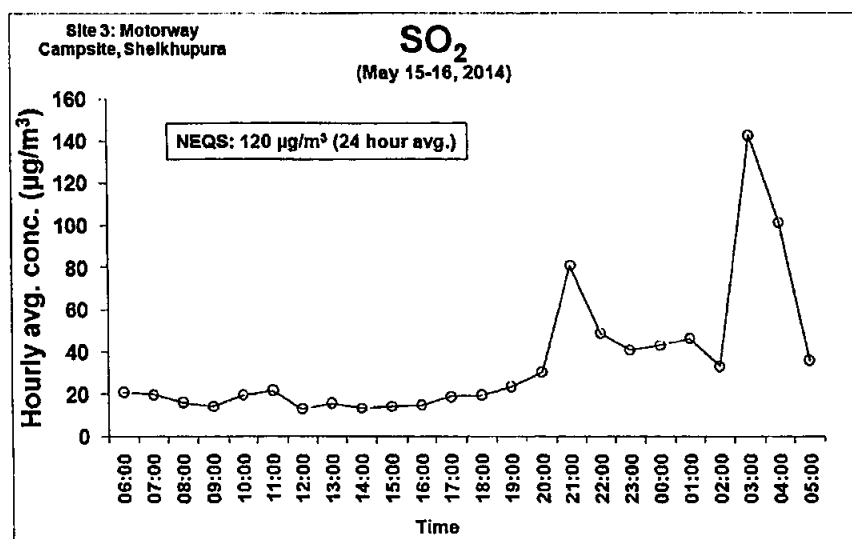


Figure 20: Hourly variation of Sulphur dioxide (SO2) at Motorway Campsite, Sheikhupura

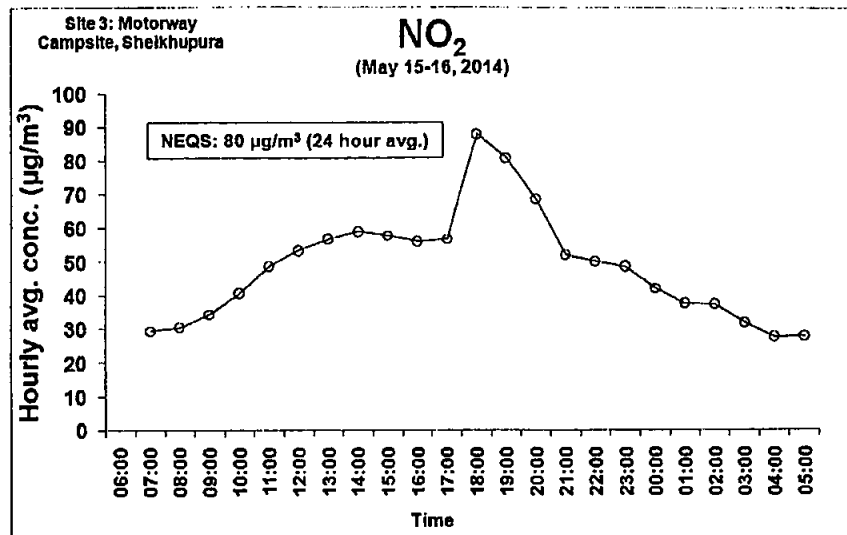


Figure 21: Hourly variation of Nitrogen dioxide (NO₂) at Motorway Campsite, Sheikhpura

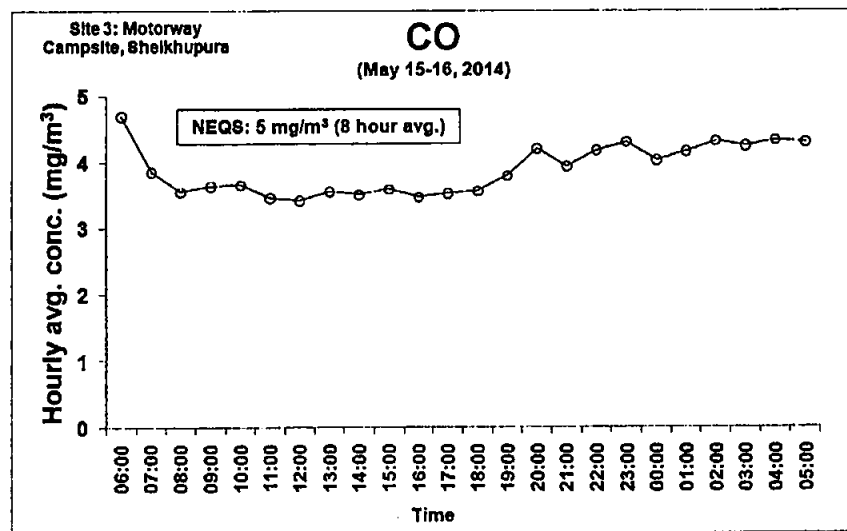


Figure 22: Hourly variation of Carbon Monoxide (CO) at Motorway Campsite, Sheikhpura

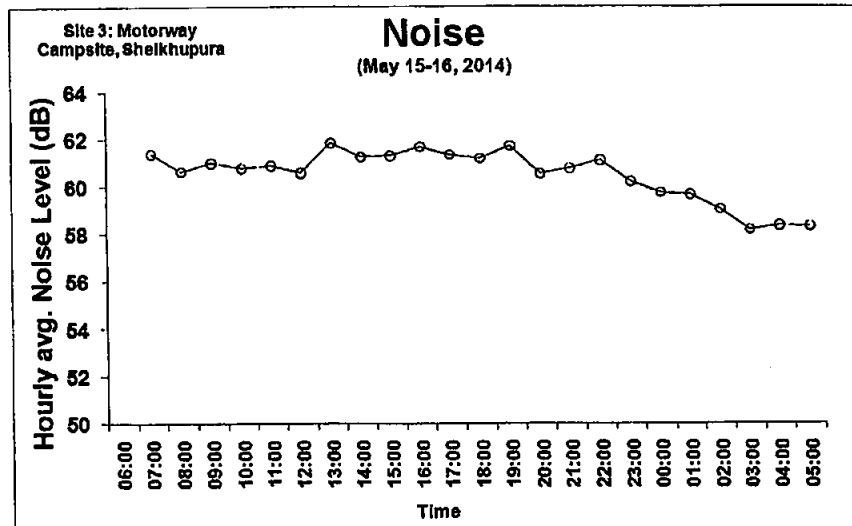


Figure 23: Hourly variation of Noise at Motorway Campsite, Sheikhupura

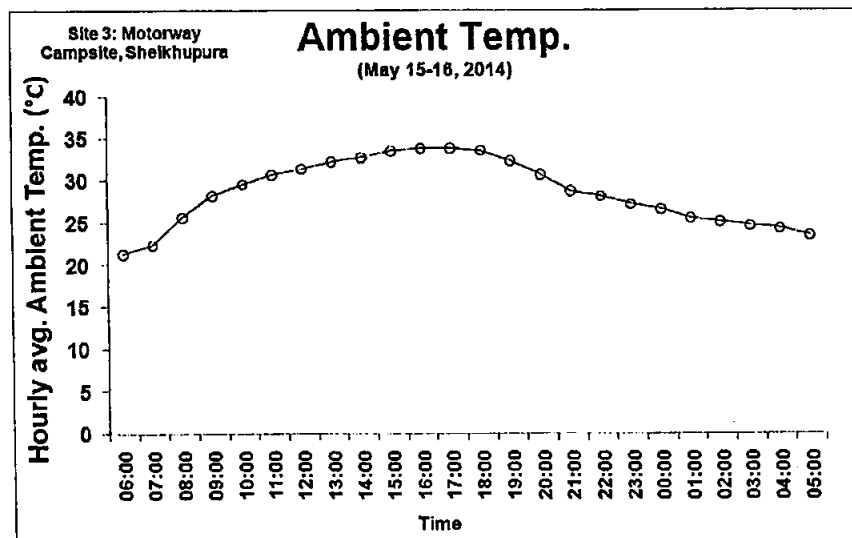


Figure 24: Hourly variation of Ambient Temperature at Motorway Campsite, Sheikhupura

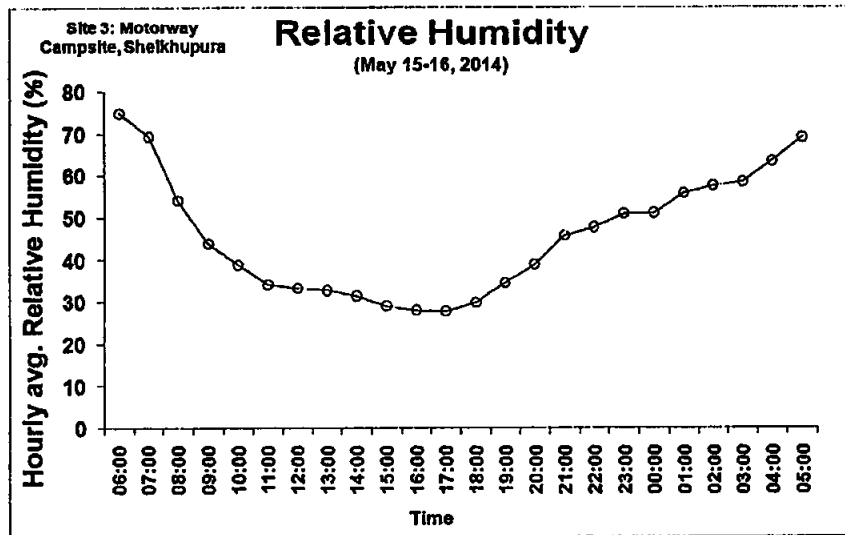


Figure 25: Hourly variation of Relative Humidity at Motorway Campsite, Sheikhpura

AMBIENT AIR QUALITY RESULTS

Parameter	Averaging Time		NEQS	Unit	AVERAGE CONCENTRATION (Quaid-e-Azam Apparel Park, Sheikhpura)		
					Chichu Ki Malian	Bamban Kalan	Motorway Campsite
Carbon Monoxide (CO)	1st Third	8 h	5	mg/m ³	4.08	3.88	3.73
	2nd Third	8 h			4.44	3.76	3.7
	3rd Third	8 h			3.46	4.28	4.22
Sulphur Dioxide (SO ₂)	24 h		120	µg/m ³	25	21.8	35.6
Nitrogen Dioxide (NO ₂)	24 h		80	µg/m ³	40.4	28	48.4
Particulate Matter (PM ₁₀)	24 h		150	µg/m ³	139.6	123.6	121.2
Noise	Day-time (0600 to 2200)	16 h	70	db(A)	65.26	60.78	61.08
	Night-time (2200 to 0600)	8 h	60		68.93	64.36	58.88

GROUND WATER QUALITY RESULTS (Sheikhupura Project)

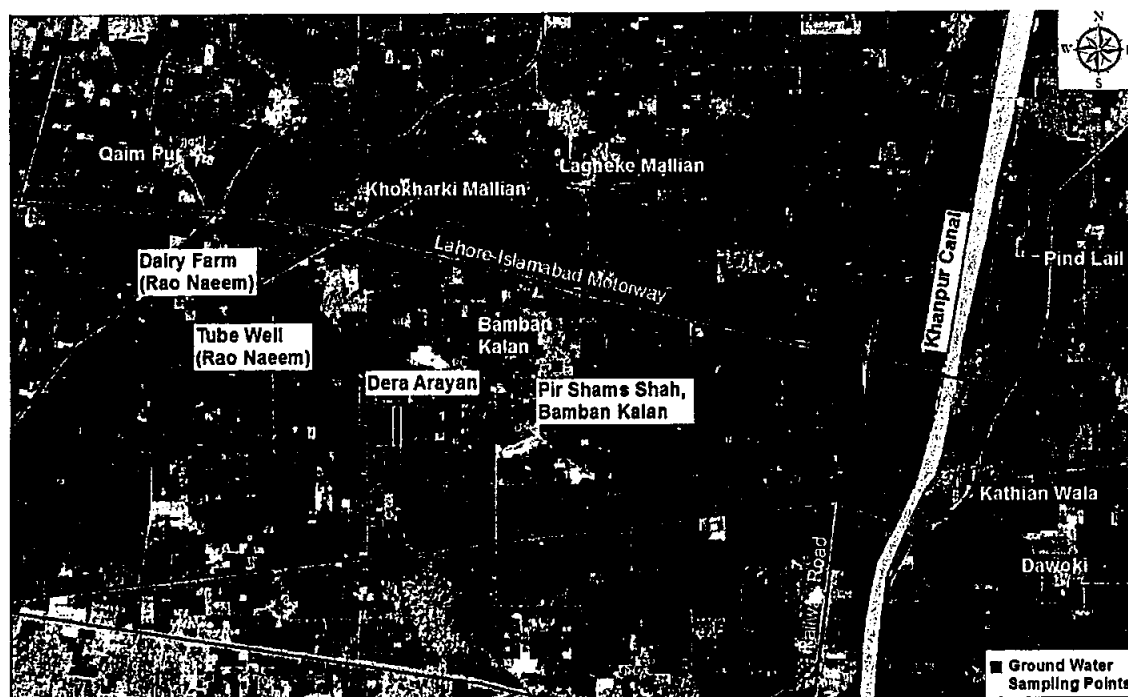
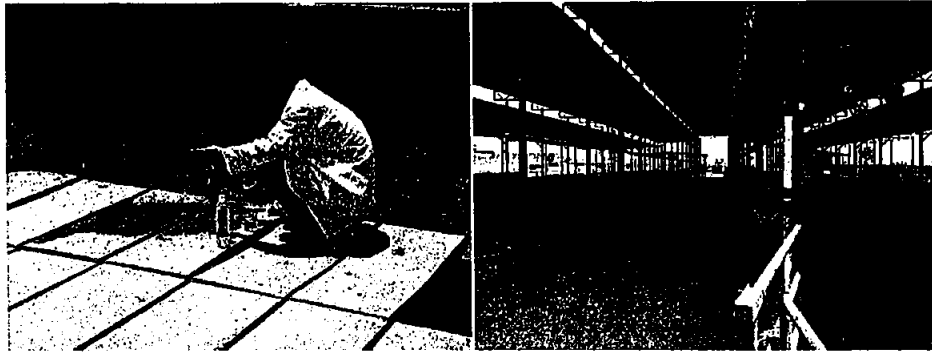
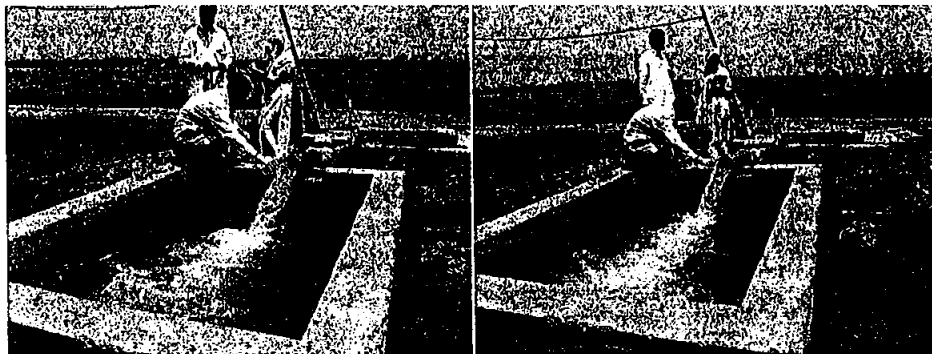


Figure 26: Ground Water Sampling Locations Map in Sheikhupura

The depth of bore for all ground water sampling was approx. 150-250 ft except the Dera Arayan site. The water sampling sites were selected in the rural areas of Sheikhupura across the Lahore-Islamabad Motorway. The sampling includes the various sources of drinking water i.e. tap water, tube-well and hand-pump. The Khanpur canal pass flows in the east of sampling sites used for the irrigation purposes for the fields of villages situated along the sides of canal. Chichokimalian, sahokimalian, bamban kalan and monoo pur are the villages in the sampling area in south of motorway while ladheki mallian and qiampur are the villages situated on its north side.



**Figure 27: Ground Water sampling and on-site analysis at Dairy Farm (Rao Naeem),
Sheikhupura**



**Figure 28: Ground Water sampling and on-site analysis at Tube-well (Rao Naeem),
Sheikhupura**



**Figure 29: Ground Water sampling and on-site analysis at Pir Shams Shah, Bamban
Kalan, Sheikhupura**

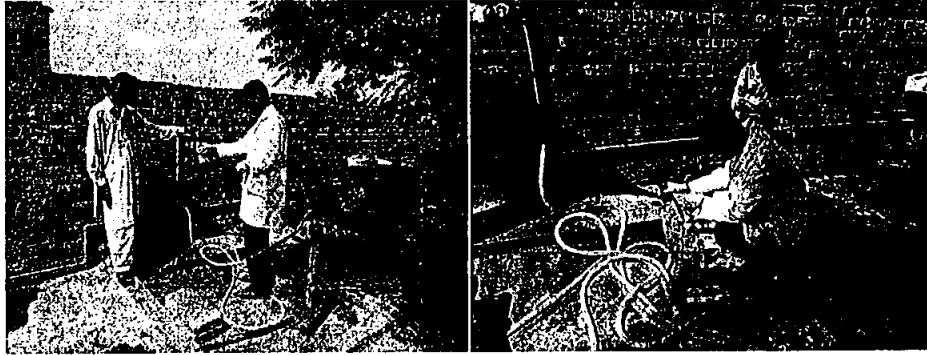


Figure 30: Ground Water sampling and on-site analysis at Dera Arayan, Sheikhupura

Ground Water Quality Results

Sr. No.	PARAMETER	GROUND WATER QUALITY RESULTS, SHEIKHUPURA				*NEQS
		Dairy Farm (Rao Naeem)	Tube-well (Rao Naeem)	Pir Shams Shah, Bamban Kalan	Dera Arayan	
1	Colour	Acceptable	Acceptable	Acceptable	Acceptable	≤ 15 TCU
2	Taste	Acceptable	Acceptable	Acceptable	Acceptable	Non objectionable/ Acceptable
3	Odour	Acceptable	Acceptable	Acceptable	Acceptable	Non objectionable/ Acceptable
4	pH	7.59	7.34	7.25	7.92	6.5 - 8.5
5	Turbidity (NTU)	10	8	11	7	<5
6	Total Hardness as CaCO ₃ (mg/l)	210	240	396	105	<500
7	Total Dissolved Solids (mg/l)	295	633	474	259	<1000
8	Aluminium (mg/l)	BDL	BDL	BDL	BDL	≤0.2
9	Antimony (mg/l)	BDL	BDL	BDL	BDL	≤0.005
10	Arsenic (mg/l)	BDL	BDL	BDL	BDL	≤0.05
11	Barium (mg/l)	0.028	0.031	0.020	0.022	0.7
12	Cadmium (mg/l)	0.002	0.001	BDL	0.002	0.01
13	Chloride (mg/l)	11.55	11.9	23.45	11.2	<250
14	Chromium (mg/l)	ND	0.004	ND	0.0012	≤0.05
15	Copper (mg/l)	BDL	BDL	BDL	BDL	2
16	Cyanide (mg/l)	BDL	BDL	BDL	BDL	≤0.05
17	Fluoride (mg/l)	0.31	0.28	0.34	0.38	≤1.5
18	Lead (mg/l)	BDL	BDL	BDL	0.001	≤0.05
19	Manganese (mg/l)	0.025	0.025	0.015	0.030	≤0.5
20	Mercury (mg/l)	ND	ND	ND	ND	≤0.001
21	Nickel (mg/l)	0.007	0.008	0.006	0.007	≤0.02
22	Nitrate (mg/l)	BDL	0.004	BDL	0.006	≤50
23	Nitrite (mg/l)	BDL	0.003	BDL	0.005	≤3

Sr. No.	PARAMETER	GROUND WATER QUALITY RESULTS, SHEIKHUPURA				*NEQS
		Dairy Farm (Rao Naeem)	Tube-well (Rao Naeem)	Pir Shams Shah, Bamban Kalan	Dera Arayan	
24	Selenium (mg/l)	BDL	BDL	BDL	BDL	0.01
25	Residual Chlorine (mg/l)	<0.02	<0.02	<0.02	<0.02	0.2-0.5 at consumer end, 0.5-1.5 at source
26	Zinc (mg/l)	0.02	0.02	0.01	0.04	5.0
27	Phenolic Compounds as Phenols (mg/l)	BDL	BDL	BDL	BDL	-
28	E. coli or Thermotolerant (MPN/100ml)	0	0	0	0	Must not be detectable in any 100 ml sample
29	Fecal Coliform (MPN/100ml)	0	0	0	0	Must not be detectable in any 100 ml sample
30	Total Coliform Bacteria (MPN/100ml)	0	0	0	0	Must not be detectable in any 100 ml sample

BDL: Below Detection Limit

*National Standards for Drinking Water Quality, 2010.

SURFACE WATER QUALITY RESULTS (Sheikhupura Project)



Figure 31: Surface Water Sampling Locations Map in Sheikhupura

In the surface water sampling, three sites were selected i.e. Saim Nallah, a pond of Bamban Kalan and Khanpur canal in Sheikhupura. The water of the sampling sites was used for the irrigation surrounding of areas.



Figure 32: Surface Water sampling and on-site analysis at Saim Nallah, Sheikhupura

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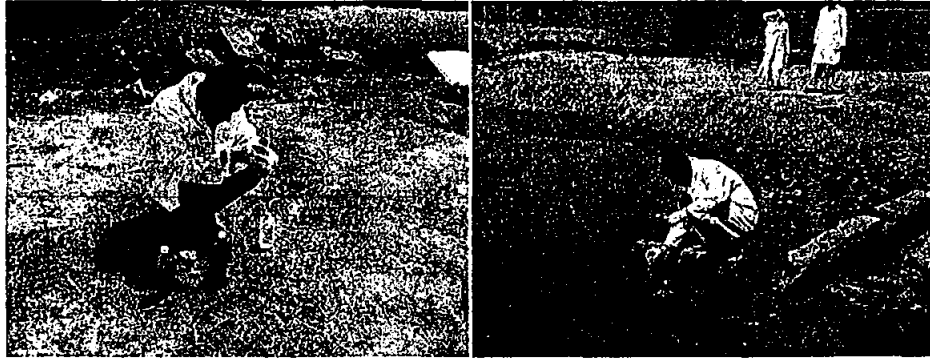


Figure 33: Surface Water sampling and on-site analysis at Pond, Bamban Kalan, Sheikhupura



Figure 34: Surface Water sampling and on-site analysis at Khanpur Canal, Sheikhupura

Surface Water Quality Results

Sr. No.	PARAMETER	SURFACE WATER QUALITY RESULTS, SHEIKHUPURA			*Surface Water Criteria	
		Saim Nallah	Pond, Bamban Kalan	Khanpur Canal	**Class C	***Class D
1	Color				-	-
2	Temperature (°C)	29.2	33.4	31.7	-	-
3	pH	7.7	7.98	8.04	6.5 - 8.5	6.5 - 8.4
4	BOD ₅ (mg/l)	9.5	17	5.7	8.0	8.0
5	COD (mg/l)	15	28	12	-	-
6	TDS(mg/l)	604	988	125	1000	1000
7	TSS (mg/l)	80	281	16	-	-
8	Grease & Oil (mg/l)	5	8	3	-	-
9	Phenolic compounds (mg/l)	0.2	0.45	<0.02	0.01	-
10	Chloride (mg/l)	16.6	12.2	2.7	-	100
11	Fluoride (mg/l)	0.4	0.6	0.1	1.5	1.0
12	Cyanide (mg/l)	0.11	0.19	ND	0.005	1.0
13	Anionic Detergent (mg/l)	0.1	1.8	0.1	0.5	-
14	Sulphate (mg/l)	820	280	53	-	-
15	Sulphide (mg/l)	<0.04	0.18	<0.04	-	-
16	Ammonia (mg/l)	0.58	1.56	0.11	1.0	-
17	Calcium (mg/l)	12	19	16	-	-
18	Cadmium (mg/l)	0.004	0.005	0.001	0.002	0.01
19	Chromium (mg/l)	BDL	BDL	0.006	0.05	0.01
20	Copper (mg/l)	0.012	BDL	0.003	0.007	0.20
21	Lead (mg/l)	BDL	BDL	BDL	0.01	0.1
22	Mercury (mg/l)	BDL	BDL	BDL	0.000012	0.01
23	Selenium (mg/l)	BDL	BDL	BDL	0.005	0.02
24	Nickel (mg/l)	0.003	0.002	0.007	0.05	0.20
25	Silver (mg/l)	BDL	BDL	BDL	-	-

Sr. No.	PARAMETER	SURFACE WATER QUALITY RESULTS, SHEIKHUPURA			*Surface Water Criteria	
		Saim Nallah	Pond, Bamban Kalan	Khanpur Canal	**Class C	***Class D
26	Zinc (mg/l)	0.012	0.014	0.021	0.086	2.0
27	Arsenic (mg/l)	ND	ND	0.003	0.05	0.10
28	Barium (mg/l)	0.09	0.07	0.009	-	-
29	Iron (mg/l)	BDL	BDL	0.04	0.3	5.0
30	Manganese (mg/l)	BDL	BDL	BDL	0.10	0.20
31	Boron (mg/l)	BDL	BDL	0.04	1.0	-
32	Chlorine (mg/l)	<0.02	<0.02	<0.02	-	-
33	E. coli or Thermotolerant (MPN/100ml)	>38×10 ³	>38×10 ³	>38×10 ³	-	-
34	Fecal Coliform (MPN/100ml)	>38×10 ³	>38×10 ³	>38×10 ³	1000	-
35	Total Coliform Bacteria (MPN/100ml)	>38×10 ³	>38×10 ³	>38×10 ³	5000	-

BDL: Below Detection Limit, ND: Not Detected

*<http://www.environment.gov.pk/act-rules/surfacewaterstds-feb2007.pdf>

ANNEXURE

ANNEXURE-I

Punjab Environmental Protection Act, (Amended)2012

Annexure-II
Pakistan Environmental Protection
Agency (Review of IEE/EIA)
Regulations, 2000

Annexure-III
National Environmental Quality
Standards (NEQS)

Annexure-IV

List of Sensitive Receptors

Annexure-V
Images of Sensitive Receptors

Annexure-VI

**Surface Water, Ground Water, Noise
and Ambient Air Quality Analysis**



LAHORE ELECTRIC SUPPLY COMPANY LIMITED

TECHNICAL DIRECTORATE
22-A, Queens Road, Lahore
Ph: 6308360, Fax: 6304436, PBX: 6314616-20 (Ext.200)

Subject: PERMISSION FOR CONSTRUCTION OF 1 X 132 / 11KV GRID STATION AGAINST NEW INDUSTRIAL SERVICE CONNECTION FOR LOAD OF 120-MW UNDER TARIFF B-IV AT QUAID-E-AZAM APPRAEL PARK-2 (QAAP-2) SHEIKHUPURA

Ref. Your application No.101/NEW/B-4 dated 19-02-2016.

Permission and technical clearance for construction of 132/11-KV Grid Station by QAAP-2 at your own cost through WAPDA/NTDC/PEPCO/LESCO approved contractor along with the sanction of 120-MW load under tariff B-IV (Being Industrial Zone) in line with the recommendations of NTDC as mentioned in the report of load flow study, subject to condition that the Grid Station will be energized after the completion / energization of proposed 220/132-KV QAAP-1 Grid Station. is hereby approved by the competent authority along with the following terms & conditions.

If management of QAAP accepts the terms and conditions then QAAP may be allowed to construct the 132/11-KV grid station through WAPDA/NTDC/PEPCO/LESCO approved contractor under the supervision of the office of CE (Development) LESCO.

1. From this sanction / approval of 120-MW load and grant of permission for the construction of 132/11-KV Grid station by QAAP (at his own cost) the QAAP will not be eligible for Distribution License at any stage.
2. The remaining 120-MW load will be sanctioned by the competent authority after the receipt of permission to QAAP-1 for construction of 220/132-KV Grid station by NTDC.
3. The management of QAAP is allowed to construct the 132/11-KV grid station through WAPDA/NTDC/PEPCO/LESCO approved contractor. However, 132-KV Double Circuit, Transmission line will be constructed by LESCO for which estimate will be prepared by the office of C.E (DEV) PMU LESCO and the Demand Notice will be issued accordingly for payment by Sponsor QAAP.
4. The Demand Notice for Security charges for load of 120-MW under tariff: B-IV (Being Industrial Zone) will be issued at prevalent rates as per policy in vogue at that time after receiving completion certificate for construction of Grid station from concerned department.
5. In case of Change of Tariff, variation in prices of security amount, due to escalation or additional liabilities implemented by the authority, the consumer will remain liable to deposit and full fill the same.
6. QAAP is liable to submit Drawing and Design of 132-KV Grid Station to C.E (Dev) LESCO for approval.

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Engineering Wing
Diary No. 5/92
Date 05/08/2017

EE 7/9/15

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7. The equipment of 132-KV Grid station will be strictly as per WAPAD /LESCO standards. And QAAP is liable to get inspect / vet the material procured for 132/11-KV QAAP-2 Grid Station by the concerned LESCO department at QAAP expense within and outside the country.
8. The 132-KV Grid Station will be constructed under the supervision of C.E (DEV) LESCO through WAPDA/NTDC/PEPCO/LESCO approved contractor.
9. The WAPDA/NTDC/PEPCO/LESCO approved contractor should be directed to follow the approved design / drawings issued by the C.E. Design (NTDC) PEPCO, WAPDA house Lahore for execution of work of Grid Station
10. All the installed temporary connections will be disconnected / removed from site by LESCO and the cost of 11-KV Feeders (for temporary connections) will not be returned
11. **MAINTENANCE AND OPERATION OF GRID STATION**

Grid station will be maintained by consumer and operated by the LESCO staff according to Clause 7.1.2 of "Policy for connecting a consumer grid station to the NTDC / LESCO net work and its Operation and Maintenance".

QAAP will provide an undertaking on a non-judicial paper that they will obey the conditions mentioned below from "a to j" or any other conditions laterally issued regarding the maintenance and operation of their private grid station.

- a) The LESCO shall have the right of free access at all times to 132 kV Grid Station for inspection and monitoring of the maintenance of the Grid Station so as to ensure that 132-KV Grid Station does not in any way, directly or consequentially, endanger the stability, reliability or safe operation of their network in any respect.
- b) The proper Maintenance of 132 kV Grid Station shall be the responsibility of consumer who shall ensure the necessary regular periodic maintenance of the equipment as per LESCO approved maintenance schedule for the reliable healthy operation and complete record of the maintenance shall be maintained in this regard by him for inspection of LESCO. In this connection, the consumer could also seek technical assistance and support from CE (TSG) NTDC who renders consulting services in this regard on payment.
- c) MOU will be signed by the Management of QAAP with LESCO(SE GSO) regarding the responsibility for payment of salaries wages, benefits and allowances as per present and future LESCO's rules and regulations of deputed LESCO staff for maintenance and operation of 132 KV grid station.

I. The following minimum staff shall be stationed at 132-KV Grid Station for its smooth operation:-

i)	Assistant Foreman	01
ii)	SSO-I & SSO-II	1 + 4

II. The Management of QAAP shall provide residential accommodation with facilities of electricity, sewerage, telephone and sweet water supply to the Operation Staff as under:-

i)	3-Room Quarters including one bath and kitchen built over minimum covered area of 1000 Sq. ft.	2-Nos.
ii)	2-Room Quarters including one bath and kitchen built over minimum covered area of 600 Sq. ft.	4-Nos.
iii)	a) PTCL Telephone, b) Mobile Set, c) Fax Facility.	

- d) The relay settings shall be done by NTDC/LESCO concerned and QAAP, or its staff shall not interfere with the same. QAAP will also arrange, entirely at its own cost and expenses, for necessary periodic relay testing/calibration (at least annually) in the presence of representatives of C.E. (System Protection) NTDC and the concerned LESCO if applicable. The relay setting calculations shall be arranged and submitted by QAAP to CE (System Protection) NTDC for approval. These relay settings shall be supplied on prescribed Performa of respective relay (along with detail of calculations).
- e) The operation & maintenance of the 132 KV feeding / interconnecting transmission line will invariably be done by LESCO. The O&M expenses will, however, be to the account of the QAAP including the expenses to be incurred for attending to a break down along with the cost of rehabilitation, if any.
- f) QAAP will be liable to pay a penalty in case they do not maintain / operate the equipment properly resulting into undue outages of the transmission line or any other system interruption in the network of NTDC/LESCO. The penalty shall be at the rate of Rs.150,000/- & 75,000/- per hour of the outage time in the case of NTDC and LESCO respectively.
- g) QAAP will provide with appropriate, reliable and fast means for direct / express communication with the relevant Control Centers besides SCADA system to be essentially made available by QAAP, as per the requirements of respective Control Centers. The necessary equipments for the SCADA System at the source grid station shall also be arranged by QAAP, this cost when required.
- h) 132KV QAAP Grid Station will also be provided with necessary telemetering facility. The energy meters used for this purpose shall conform to NTDC specification P-202. The on-line metering data from revenue meters as well as meters on the distribution lines/feeders emanating from 132 KV Grid Station for service area will be transmitted to the Control Center of the LESCO. In case of QAAP Grid Stations connected to the NTDC network, the information will also be transmitted to NPCC Islamabad.
- i) QAAP Ltd will be bound to follow the load management instructions issued by PEPCO / LESCO. In case of failure to follow the said instructions, the Control Centers will have the right to disconnect the supply to 132 KV Grid Station forthwith besides taking other appropriate measures and punitive actions in this regard. The load profile data of the

energy meters on the circuits emanating from 132 KV QAAP Grid Station will be considered as sufficient evidence for compliance / non-compliance of the load management instructions.

- j) QAAP, will be responsible to abide by all terms and conditions, which are not only limited up to above mentioned conditions as some other conditions and provisions necessitated according to any particular operating situations, shall essentially be made a part of the connection/commercial agreement from LESCO to be executed will be abided by the QAAP Sheikhpura.

12. The required undertaking will be submitted by the QAAP, to the office of C.E. (P&D) LESCO copy to P.D.GSC LESCO, before energizing of the grid station. This will be ensured by P.D.GSC, LESCO.

13. QAAP is liable to abide by all the instructions of policy for construction of grid station issued by GM (C&M) PEPCO vide his office letter No.3226-40 /GM (O) PEPCO / RA dated 30-07-2010. An undertaking on a non-judicial paper will be provided by QAAP the PD GSC will ensure before construction of grid station.

14. QAAP will submit an undertaking before energizing of his connection that they will not extend their load beyond sanctioned limit and will not make any alteration in the grid equipment including the power transformer without prior approval of LESCO. In case of violation LESCO reserves the right to disconnect the supply.

15. The Contract for Consumer Connection and Supply of Electric Power will be signed between the LESCO (SE GSO) and QAAP, in accordance with the stipulations in grid code for the distribution code of LESCO under which the connection is being applied by QAAP for tapping the 120-MW load of QAAP, 132 KV grid station with 132 KV LESCO Networking.

16. QAAP will install power factor correction equipments at his own cost to ensure that the power factor at his premises should not fall below 90%. This shall be ensured by the Standing Technical Committee before energizing of connection at B-IV tariff.

17. Installation shall be inspected and certified by the Electric inspector Govt of Punjab for issuance of necessary Test Report & NOC before energizing of connection at B-IV tariff and same may be submitted to this office after completion of grid station for further process.

18. Provision of clear Right-of-Way and NOC from LAFCO / TEPA / PHA / NHA/MOTORWAY/ City District Govt etc will be the sole responsibility of QAAP, in case of any dispute with Govt. agencies or private owners will be settled by QAAP, on cost deposit basis where the installations of 132 KV Towers / poles foundations with stringing work is required. QAAP will also deposit the difference of amount due to any change of route or requirement of excess material etc. The PD GSC may ensure the deposit of difference amount if any before energizing of the Transmission line / grid station.

19. The Separate Metering Room as per Drawing No. CEDD/3-C for housing the 132 KV Metering Panel shall be constructed at the proposed grid station with the excess near main gate proposed by C.E Design NTDC PEPCO. The Manager (Op) SKP Circle will keep the keys with his safe custody.

20. As the QAAP has opted to construct the 132/11-KV QAAP-2 Grid station at its own instead of from LESCO, therefore a committee comprising of the following officers will carry out final inspection and pre-commissioning necessary tests and energization of Grid Station.

- 1- Manager GSO LESCO
- 2- Manager GSC LESCO
- 3- Deputy Manager SS&T
- 4- Deputy Manager P&I
- 5- Deputy Manager T&I

21. The work shall only be taken in hand by The Standing Technical Committee comprising the following officers after receiving go-ahead signal from CE (P&D) as soon as realization of capital cost and security amount is confirmed by Finance Director LESCO and AM (CS) concerned, LESCO respectively.

1)	Manager GSO LESCO.	Convener
2)	Manager (Operation) SKP Circle LESCO.	Member
3)	Manager M&T (West) Circle LESCO.	Member
4)	Dy. Manager (Op) City SKP Division LESCO	Member

22. The Dy. Manager (P&I) WAPDA / LESCO, Dy. Manager (SS&T) LESCO, Dy. Manager (T&I) LESCO will associate The Standing Technical Committee for testing and securing the 132KV CTs, PTs, metering Panels conduit pipes etc.

23. The two No. Static (TOU) 132 KV Energy Meters of accuracy clause 0.2 for billing and back up metering may be provided by the consumer. The necessary demand notice for installation and testing fees of M&T etc or any other charges will be issued by the Manager (O) SKP Circle and got deposited by QAAP.

24. The Standing Technical Committee for grid station will adjust the relay setting to avoid any discriminate tripping of the system with the recommendation issued by the C.E. Development, LESCO.

25. The Standing Technical Committee shall observe the followings before energizing of B-IV Connection:-

- i. Metering system will be 3-Phase / 4-wire.
- ii. Control cables from P.Ts will be laid in separate steel conduit pipes. Size of control cables will be 4-core 2.5mm sq copper.
- iii. Secondary connection boxes of all the 132 KV C.TS & P.Ts will be secured properly by pasting postal orders to be signed by all the Committee members.

26. The 132-KV energy meters will be installed in proper panels/ steel cubical. This panel

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will have hinged door with locking / sealing arrangements Glass windows will be provided in the door for viewing the readings of all the meters. Proper fixing arrangements will be provided in the panel for easy installation of energy meters. Terminal blocks for each C.T / P.T circuit as mentioned above will also be provided in the panel. In addition to above, proper arrangements for Earthing of all meters etc. will also be provided in the panel. The Standing Technical Committee is directed to ensure the following:-

- a. To check the clearance of dues against the existing connection.
- b. To check that no other connection is running at the same premises.
- c. To check any other observations.
- d. To dismantle any Material lying at site and returned to Store through MRN.

27. The Standing Committee shall ensure that after affection / energization of instant NEW CONNECTION, any other connection temporary or permanent existing in the same premises shall be disconnected permanently.

28. In case of variation in prices of material due to escalation or additional material is required to be used or any other charges detected at any later stage, QAAP will remain liable to deposit the same, for which you will submit the undertaking to the CE (Dev)LESCO.

29. All other usual formalities shall be fully observed by The Standing Technical Committee before taking the work in hand before energizing of the connection at n B-IV Tariff.

30. Dy. Manager (Op) City SKP Division may be directed to get return all the dismantled material if any through MRN to concerned field store after energizing of B-IV connection by observing all departmental formalities.

31. Manager (Op) SKP Circle may be directed to watch the MDI to restrict with in sanctioned load besides follow the implementation of load management schedule issued by PEPCO/LESCO.


32. Regional Manager M&T West may be directed to circulate the Test Check Performa to all concerned after duly signed by all committee members along with representative of the consumer also copy to CE (P&D) Office LESCO for record.

33. The Automatic /Manual change over switch will be provided by QAAP Ltd, in case of his own source of supply /self-generation. The proper installing / testing of the same should be ensured by Manager M&T West.

34. Manager (Op) SKP Circle may be directed to submit the SCO issued by C.E. (P&D), LESCO after completion by observing all departmental formalities to this office for record and he may also be directed to submit all required documents to the office of AM (CS) for proper billing from MIS Directorate in time.

35. The QAAP may be directed to hand over said 132-KV grid station to the PD GSC LESCO and Manager / S. E GSO Circle LESCO with the complete set of drawings and records after getting necessary checking / testing from all concerned like P&I, T&I and SS&T divisions LESCO etc by observing all departmental formalities.
36. QAAP shall follow the NEPRA Act 1997 clause 22(2) and electricity act 1910.
37. All the work shall be executed according to the WAPDA / PEPCO/LESCO Standard Design & Specifications issued by NTDC / PEPCO / LESCO.
38. All other terms and conditions of tariff B-IV of 132 kV independent grid station with independent feeding transmission arrangement shall be applicable.

This is being issued with the approval of Competent Authority.


Chief Engineer (P&D)
Engr. Mohsin Raza Khan

To:

Mr. Naveed Mushtaq Gill
CEO Punjab Industrial estates
Development and Management Company (PIEDMC)
PIEDMC Head Office, North Commercial Area
Sunder Industrial Estate, Raiwind Road Lahore
QAAP at Motorway M-2 Sheikhupura.

Info:

- 1 GM Technical LESCO for information please.
- 2 CE (Development) PMU LESCO for information please.
- 3 Chief Engineer (Power) Energy department Govt of Punjab, irrigation secretariat Lahore for information please.
- ✓ 4 Chief Engineer Electrical (PIEDMC) for information please.
- 5 SE (GSO) LESCO
- 6 Manager (Operation) SKP Circle LESCO
- 7 Deputy Manager (Op.) City SKP Division LESCO
- 8 Master file

No: 22368-75/SKP/DRW/631

Dated: 04/05/2017.



LAHORE ELECTRIC SUPPLY CO. LIMITED

Chief Engineer (P&D) LESCO

22-A, Queens Road, Lahore

Ph: 99204818, Fax: 99204819, PBX: 99204820-30 (Ext.200)

Subject: NEW INDUSTRIAL CONNECTION FOR 120 MW LOAD THROUGH PROPOSED 220/132/11 KV GRID STATION AT QUAID-E-AZAM APPAREL PARK SHEIKHUPURA

- Reference: 1.** Your request on the above noted subject.
2. This office letter No. 22368-75 dated 4-5-2017 vide which permission for construction of 132 kV G/S & new connection for 120MW load has been sanctioned.
3. GM Power System Planning, NTDC letter No. GM / PSP / CEMP / MTRP / 376/3870-76 dated 3-7-2017 vide which permission for construction of 220/132 kV grid station for instant connection has been issued.

Sanction and technical clearance for new industrial connection for 120 MW load through proposed 220/132/11 kV grid station in the name of CEO Punjab Industrial Estates Development & Management Company at Quaid-e-Azam Apparel Park, Sheikhupura on cost deposit basis, under Tariff 'J', is hereby accorded with the following terms and conditions:

1. Since permission / NOC for construction of proposed 220/132/11 kV grid station, as mentioned at clause-2 of this office letter given at Reference-1 has been issued by GM Power System Planning, NTDC, therefore sanction/approval of remaining 120 MW load of Quaid-e-Azam Apparel Park, Sheikhupura in line with the recommendations of NTDC as mentioned in the report of load flow study, under Tariff 'J' (According to SRO 1134(I)/2015 NEPRA Regulations, 2015 Part-II) through proposed 220/132/11 kV grid station has been accorded by the competent authority.
2. M/s QAAP, Sheikhupura will deposit the security for 120 MW under tariff 'J' (Being Industrial Estate). The Demand Notice in this regard will be issued at prevalent rates as per policy in vogue at that time after receiving completion certificate for construction of grid station from the concerned formation.
3. M/s QAAP is liable to provide License from NEPRA / submit O&M Agreement as per provision of Tariff 'J' (as determined by NEPRA).
4. In case of change in applicable tariff, the Management of QAAP is liable to abide by the decision of NEPRA / LESCO.
5. In case of change of Tariff, variation in prices of security amount, due to escalation or additional liabilities implemented by the authority, the applicant/consumer will remain liable to deposit and fulfill the same.
6. As proposed 220/132/11 kV grid station for which NOC for construction of grid station has been issued by GM Power System Planning, NTDC vide letter given at Reference-2, falls under the jurisdiction of NTDC, therefore all the pre-requisites including regulatory issues, modality for drawing power from the network, construction / operation & maintenance of grid station and supply of power to the

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consumer etc. including posting of staff at the grid station and their salaries/allowances as well as construction of their residences/quarters etc. will be finalized by CE (GSO) / CE (GSC) NTDC and MOU in this regard is to be signed prior to implementation of the subject project as already mentioned in GM Power System Planning NTDC letter No. GM / PSP / CEMP / MTRP / 376/3870-76 dated 3-7-2017.

7. M/s QAAP is liable to abide by all the instructions of policy for construction of grid station issued by GM (C&M) PEPCO vide his office letter No.3226-40 /GM (O) PEPCO / RA dated 30-07-2010 or any other office(s). An undertaking on a non-judicial paper will be provided by M/s QAAP before construction of grid station.
8. M/s QAAP will submit an undertaking before energization of connection that they will not extend their load beyond sanctioned limit and will not make any alteration in the grid equipment including the power transformer without prior approval of NTDC/LESCO. In case of violation NTDC/LESCO reserves the right to disconnect the supply.
9. The Contract (MOU) for consumer connection and Supply of Electric Power will be signed between NTDC and M/s QAAP in accordance with the stipulations in relevant code under which the connection is being applied by M/s QAAP i.e. the grid code of the distribution code (LESCO) by tapping 120 MW load of M/s QAAP grid station with LESKO Network. CE (GSO) / CE (GSC) NTDC shall get the needful done as per policy and signed the MOU on behalf of NTDC. Copy thereof should also be circulated to all concerned. The Standing Technical Committee will ensure execution of this agreement before energization of connection / grid station.
10. M/s QAAP will install power factor correction equipments at his own cost to ensure that the power factor at his premises should not fall below 90%. This shall be ensured by the Standing Technical Committee before energization of connection.
11. Installation shall be inspected and certified by the Electric inspector Government of Punjab for issuance of necessary Test Report & NOC before energization of connection and same may be submitted to this office after completion of grid station for further process.
12. Provision of clear Right-of-Way and NOC from NHA / TEPA /PHA / City District Govt. etc. will be the sole responsibility of M/s QAAP in case of any dispute with Govt. agencies or private owners will be settled by M/s QAAP on cost deposit basis where the installations of 220/132 K.V Towers / poles foundations with stringing work is required. He will also deposit the difference of amount due to any change of route or requirement of excess material etc. The PD (GSC)/SE (GSO) may ensure the deposit of difference amount, if any, before energization of the grid station.
13. The Separate metering room for housing the metering system/panel shall be constructed at the proposed grid station with the access preferably near main gate proposed and designed by C.E Design and as per scheme of system protection / NTDC PEPCO. Dy. Manager (Op) concerned Division LESKO will keep the keys with his safe custody and one spare key should remain with Manager (Op) Sheikhpura.
14. The work shall only be taken in hand by the Standing Technical Committee

comprising the following officers after issuance of SCO by CE (P&D) LESCO after realization of capital cost, if any, and security amount is confirmed by CFO/AM (CS) concerned LESCO respectively:

- | | | |
|----|--|----------|
| 1) | Manager GSO LESCO. | Convenor |
| 2) | Manager (Operation) Sheikhpura Circle LESCO. | Member |
| 3) | Manager M&T (West) Circle LESCO. | Member |
| 4) | Dy. Manager (Op) concerned Division LESCO | Member |

Dy. Manager (P&I) WAPDA / LESCO, Dy. Manager (SS&T) LESCO, Dy. Manager (T&I) LESCO will associate the Standing Technical Committee for testing and securing the metering CTs, PTs, metering Panels, conduit pipes etc.

15. Energy meters of accuracy class 0.2 for billing and back up metering may be provided by the consumer. The necessary Demand Notice for installation and testing fees of M&T etc or any other charges will be issued by the DM (O) concerned Division, which will be deposited by M/s QAAP.

16. The Standing Technical Committee shall observe the followings before energization of Connection:-

- i. Metering system will be designed and approved by NTDC.
- ii. Control cables from C.Ts & P.Ts will be laid in separate steel conduit pipes. Size of control cables will be as per scheme issued by NTDC.
- iii. Secondary connection boxes of all the C.TS & P.Ts will be secured properly by pasting postal orders to be signed by all the Committee members.
- iv. Energy meters will be installed in proper panels/ steel cubical. This panel will have hinged door with locking / sealing arrangements Glass windows will be provided in the door for viewing the readings of all the meters. Proper fixing arrangements will be provided in the panel for easy installation of energy meters. Terminal blocks for each C.T / P.T circuit as mentioned above will also be provided in the panel. In addition to above, proper arrangements for earthing of all meters etc. will also be provided in the panel.

17. All other usual formalities shall be fully observed by the Standing Technical Committee before taking the work in hand before energization of connection.

18. The Dy. Manager (Op) concerned Divn. will watch the MDI to restrict with in sanctioned load besides follow the implementation of load management schedule issued by PEPCO / LESCO.

19. The Manager M&T (West) is directed to circulate the test check Performa to all concerned duly signed by Committee members along with representative of the consumer and copy to CE (P&D) Office LESCO for record.

20. The Automatic / Manual change over switch will be provided by M/s QAAP, in case of his own source of supply /self-generation. The proper installing / testing of the same should be ensured by Manager M&T West.

Signature

Signature
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21. SE (GSO) LESCO shall submit the SJO issued by C.E.(P&D),LESCO after completing and observing all departmental formalities to this office for record and he may also be directed to submit all required documents to the office of AM (CS) concerned for proper and timely billing by MIS Directorate.
22. M/s QAAP shall follow NEPRA Act 1997 clause 22(2) and ElecY: Act 1910.
23. The Management of QAAP will remain liable to deposit the cost of work to be executed by NTDC / LESCO.
24. All the work shall be executed according to the WAPDA / PEPCO/LESCO Standard Design & Specifications issued by NTDC / PEPCO/LESCO.
25. All other conditions of tariff 'J', Industrial Estates and independent grid station will remain applicable.

This is being issued with the approval of Chief Executive Officer LESCO.

~~Chief Engineer (P&D)~~
~~(Ch. Muhammad Amin)~~

To: CEO Punjab Industrial Estates Development & Management Company, Quaid-e-Azam Apparel Park, Sheikhupura

- Info:
1. Registrar NEPRA, Islamabad.
 2. GM Power System Planning, NTDC 4th Floor PIA Tower, Lahore.
 3. GM (GSO) NTDC, Wapda House, Lahore.
 4. GM (GSC) NTDC, Wapda House, Lahore.
 5. Chief Engineer (Development) LESCO.
 6. Chief Engineer O&M (T&G) LESCO
 7. Chief Engineer Design NTDC WAPDA, WAPDA House Lahore.
 8. Chief Engineer (TS) LESCO.
 9. CSD, LESCO Lahore.
 10. Director Design (Grid) O/O CE Design NTDC Wapda House, Lahore.
 11. Chief Financial Officer LESCO.
 12. PD (GSC) LESCO.
 13. Manager (GSO) LESCO
 14. Manager (Op) Sheikhupura Circle LESCO.
 15. Manager Technical M&T (West).
 16. DM (O) City Division, Sheikhupura
 17. DM (SS&T) Division (North) LESCO.
 18. DM P&I Division LESCO.
 19. DM T&I (GSC) Division LESCO.
 20. Electric Inspector, Government of Punjab, Lahore.
 21. AM (CS) City Division, Sheikhupura
 22. Master File.

Memo No. 19309-30/DRW- 632/Skp.

Dated: 19 /04/2019

Hamid/TC-Sapphir

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LAHORE ELECTRIC SUPPLY COMPANY LIMITED
GRID SYSTEM CONSTRUCTION DIRECTORATE
34 - INDUSTRIAL AREA GULBERG - III LAHORE
Phone No. 042 - 99263256, Fax No. 042 - 99263255

No-PD/GSC/LESCO/1774-78

Dated 16-02-2022

✓ Chief Engineer (Electrical) PIEDMC
Commercial Area (North) Sundar Industrial
Estate, Sundar Raiwind Road, Lahore

Subject:- Revised Tentative Demand Notice (Capital Cost) For The Construction Of 132 KV Grid Station Quaid-e-Azam Business Park -1, Sheikhpura Alongwith Feed Transmission Line For 132 KV Grid Station Quaid-e-Azam Business Park -1 as Interim Arrangement.

Ref: C.E (P&D) LESCO letter No. 10339-46 Dated 27-01-2020, addressed to your office & copy to this office as well.

Kindly be informed that vide above referred letter, demand notice amounting to Rs. 177,479,511/- was issued for the payment. After adjustment vide above referred letter PIEDMC had to pay Rs. 106,772,370.2/- [(177,479,511) - (70,707,140.8 already available with LESCO)]. PIEDMC paid Rs. 106,772,370.2/- as a capital cost after adjustment.

Now, it is apprised that due to change of site, scope of work and inflation rates, the capital cost has been revised and tentative estimate has been prepared amounting to Rs. 317,119,215/-. So, the Total recoverable tentative capital cost after adjustment of amounts comes out to be Rs. 139,639,704/- (Rupees thirteen crore ninety six lac thirty nine thousand seven hundred and four only). [Rs. 317,119,215/- (-) Rs. 177,479,511/- (Already available with LESCO)]

Therefore, it is requested that difference of above mentioned amount may please be deposited in favour of Chief Financial Officer, LESCO for further necessary action, under intimation to this office to complete the project on agreed time lines.

Kindly feel free to contact if any query is required regarding above estimate.

DA (Original Demand Notice)


PROJECT DIRECTOR
GSC LESCO LAHORE

Copy to:

1. G.M (Tech) LESCO, Lahore
2. Chief Financial Officer LESCO, Lahore
3. Chief Engineer Development (PMU) LESCO, Lahore
4. Chief Engineer P&D LESCO, Lahore
5. XEN GC Division GSC LESCO, Lahore


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پاکستان کابجلی اور پانی کاتر قیاتی ادارہ
(شعبہ برقیات)

سی تاریخ ۱۵۴/۰۶/۲۰۲۰

حالیہ کرشل پر دیکھ کر ڈیڑھ گھنٹہ ۲۰۲۰/۰۶/۲۰

ڈیماٹ نوٹس کاسلسلے وارنمبر 13774-78
ڈیماٹ نوٹس کی تاریخ اجراء 16-02-2022
درخواست وصول کولالت شدہ اکاؤنٹ/حوالہ نمبر
(جس کے تحت رقم بینک میں یا ادارہ کے متعلقہ اسر کے پاس جمع کرائی ہیں)
ادارہ کے منظور شدہ بینک کا نام CHIEF FINANCIAL OFFICER, LESCO
ادارہ کے متعلقہ ریونیو اسر کے دفتر کا مکمل پتہ 22-A QUEENS ROAD, LESCO H/Q
متعلقہ ٹریف شیڈول اگر وہ پابجلی

Capital Cost

Rs. 139,639,704/-

ڈیماٹ نوٹس

(اطلاع نامہ منظوری درخواست و طلبی اخراجات سروں نکشن)

پرت برائے درخواست دہندہ

(درخواست دہندہ یا صارف کا نام اور مکمل پتہ:

C. F. ENGINEER ELECTRICAL PIEDMC COMMERCIAL AREA NORTH SUNDAR INDUSTRIAL ESTATE, SUNDAR
RAIWIND ROAD, LAHORE

آپ کو ریونیو ڈیماٹ نوٹس ہذا اطلاع دی جاتی ہے کہ آپ کی درخواست برائے وصول نکشن بجلی جس کے کوائف ادھر درج کئے گئے ہیں اسر مجاز نے ادارہ کی موجودہ عام شرائط بجلی کے علاوہ مندرجہ ذیل شرائط پر منظور کر لی ہے۔
آپ اس نوٹس کے اجراء کی تاریخ سے 30 دن کے اندر اندر مندرجہ ذیل رقم ادارہ کے منظور شدہ بینک میں یا خود ادارہ کے متعلقہ اسر کے پاس جمع کروا کر ان کی ادائیگی سے متعلق رسید سر اور تاریخ سے دفتر کو مطلع کریں
(الف) اخراجات سروں نکشن برطانیہ منظور شدہ مخفیہ خرچ RS:139,639,704/- روپے (یہ رقم ادارہ کے متعلقہ اسر NIL کے پاس جمع کرائی ہے) اگر نکشن لگانے سے پہلے اخراجات سروں نکشن منظور شدہ مخفیہ خرچ سے زائد پائے گئے تو جمع شدہ رقم کے فرق کے برابر مزید رقم جمع کرنا ہوگی جس کے لئے اضافی ڈیماٹ نوٹس جاری کیا جائے گا۔

(RUPEES: THIRTEEN CRORE NINTY SIX LAC THIRTY NINE THOUSAND SEVEN HUNDRED AND FOUR ONLY)

(ب) طلبا جات بوجھ عدم ادائیگی ساہیلہ بجلی وغیرہ NIL روپے (یہ رقم ریونیو ڈیماٹ نوٹس کے آخری بل وصولی کر کے بینک میں جمع کرائی ہے)۔
نوٹ: اگر آپ کمربلو تجارتی (کرشل) منقح ٹھوک سپلائی کے درخواست دہندہ یا صارف ہیں تو آپ اس سلسلہ میں ڈیماٹ نوٹس ہذا کی ذیلی پرت کو (جو آپ کے جواب کے لئے مختص کی گئی ہے) پر کریں اور اس پر اپنے دستخط بعد تاریخ جمع کر کے میرے دفتر کو واپس بھیجیں۔
آپ اس نوٹس کے اجراء کی تاریخ سے 30 دن/ماہ کے اندر اندر اپنی عمارت کی اندرونی دائرہ کے منقحہ اور معیاری ہونے اور اپنے آلہ جات برائے استعمال بجلی کی تنصیب مکمل ہو جانے کے ثبوت میں گورنمنٹ کے منظور شدہ دائرہ کٹر یکٹر سے شٹ رپورٹ حاصل کر کے برائے مزید نگہبان معائنہ اور شٹ میرے دفتر کو بھیجیں اور رسید حاصل کریں (خالی شٹ رپورٹ فارم سی پی - معلق ہے)۔
آپ نے چونکہ ادارہ کو بجلی کی سپلائی کی پیمائش کے لئے اپنا زرخیر میٹر مہیا نہیں کیا اس لئے آپ سے ادارہ کی موجودہ سروں چارج شیڈول کے مطابق NIL روپے ماہوار کرایہ میٹر چارج کیا جائے گا۔
ڈیماٹ نوٹس برائے ضمانت علیحدہ ارسال کیا گیا ہے نکشن کی کارروائی دونوں ڈیماٹ نوٹس کی رقم علیحدہ علیحدہ داخل ہونے کے بعد شروع ہوگی۔

(جو غیر متعلقہ ہو تو کٹ دیا جائے)

اگر آپ نے ڈیماٹ نوٹس ہذا کے جواب میں مندرجہ بالا شرائط کی مقررہ معیار کے اندر قیام نہ کیا تو آپ کی درخواست فارم برائے وصول بجلی کولالت شدہ جاری نمبر کالیا نہیں رکھا جائے گا۔ ڈیماٹ نوٹس ہذا تاریخ اجراء سے 01-MONTH (ماہ بعد) خود بخود غیر موثر تصور ہوگا۔

PROJECT DIRECTOR
ISC LESCO LAHORE

مہر و دستخط اسر بینک

برائے استعمال بینک
(متعلقہ بینک اس پرت کو ڈیماٹ نوٹس سے علیحدہ کر کے اپنے بینک سکروں کے ساتھ متعلقہ دفتر مہتمم بجلی کو بھیجے گا)

درخواست دہندہ یا صارف کا نام اور مکمل پتہ:

اداشدہ رقم کی تفصیل

2- درخواست رجسٹریشن نمبر تاریخ
3- ڈیماٹ نوٹس کاسلسلے وارنمبر تاریخ
4- درخواست کولالت شدہ اکاؤنٹ نمبر/حوالہ نمبر
5- منظور شدہ بینک کا نام

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LAHORE ELECTRIC SUPPLY COMPANY LIMITED
Chief Engineer (P&D)
22/A-Queens Road, Lahore
Ph: 99204818, Fax: 99204819, PBX: 99204820-30 (Ext.200)

Subject: INTERIM CONNECTION FOR LOAD OF 32-MW UNDER TARIFF B-IV, IN THE NAME OF PUNJAB INDUSTRIAL ESTATES DEVELOPMENT AND MANAGEMENT COMPANY THROUGH MUHAMMAD JAVAID ILYAS, CEO PIEDMC AT QUAID-E-AZAM APPAREL PARK, AGAINST INDUSTRIAL SERVICE CONNECTION REGISTRATION NO:139/B-IV/NEW DATED: 15-10-2019.

The Competent Authority is pleased to accord approval the instant interim case for load of 32-MW under tariff B-IV in the name of Punjab Industrial Estates Development And Management Company (Govt Of Punjab) through Muhammad Javaid Ilyas CEO PIEDMC and registered in this office vide No:139/B-IV/NEW dated: 15-10-2019 through proposed construction of 132 KV Grid Station-1 at QAAP, PIEDMC with IN / OUT FEED Transmission Line Arrangement made from 132-KV Transmission Line Between Ayesha Grid Station and Sapphire Power House on cost deposit basis. The interim 32-MW load shall be disconnected upon energization of 120-MW as already approved from 220/132/11-KV Grid station (Grid-1) under tariff-J shall be utilized by LESCO according to LESCO requirements and PIEDMC shall not claim anything at any stage after energization of 120-MW as already approved from 220/132/11-KV Grid station (Grid-1) under tariff-J. Further PIEDMC and NTDC shall not debar LESCO for utilization of Spare Capacity at 220/132/11-KV Grid Station-1 at any stage.. Following terms and conditions shall also be applied.

TERMS AND CONDITIONS:

1. The consumer shall make the payment of Demand Notice of capital cost, if he agreed with the following terms and conditions.
2. The total tentative estimated cost of the project calculated and furnished by Project Director (GSC), Total Recoverable Tentative Capital Cost comes out to be Rs: 177,479,511/- Including M&T charges, the detail is as under:-

(A)	Tentative cost of 132 kV Grid Station	Rs. 165,879,313/-
(B)	Tentative cost of Transmission Line.	Rs. 11,575,198/-
(C)	M&T Charges	Rs. 25,000/-

The above cost is tentative and subject to the revision on actual basis after the approval of profile / design from Chief Engineer Design NTDC and allocation of material. Demand Notice of capital cost is issued along with the Technical Clearance for payment within one month from the issuance of this letter otherwise the case shall automatically stand cancelled. The payment shall be made through Pay order / Bank draft in favor of Chief Financial Officer LESCO. However applicant will remain liable to deposit difference of amount as per actual expenditure as finalized by the concerned formation.

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3. The request vide no: PIE/CEE/QAAP-5761 dated: 27-09-2019 for the adjustments of already paid amount of Rs.117 Million against the construction of 132-KV Double Circuit Line for Sundar Industrial Estate Grid station cannot be processed at this stage being separate project / case to avoid complications later.
4. The 7.2 MVAR Capacitor Bank at 11-KV Bus Bar of 132-KV Power Transformer of 132-KV Grid station at Quaid-e-Azam Apparel Park is also proposed to improve voltage profile and to reduce the flow of reactive power from LESCO's transmission network
5. The proposed 132-KV IN/OUT arrangement of 32-MW under tariff-B-IV shall be utilized by LESCO according to LESCO requirements and PIEDMC shall not claim anything at any stage after energization of 120-MW as already approved from 220/132/11-KV Grid station (Grid-1) under tariff-J.
6. PIEDMC and NTDC shall not debar LESCO for utilization of Spare Capacity at 220-KV Grid Station at any stage.
7. M/s QAAP, PIEDMC is liable to deposit the security amount for total load of 32-MW under tariff B-IV @ Rs.3560/- per kW. However the Demand Notice for the amount of security will be issued as per prevalent rates after completion of work by P.D GSC LESCO. The security amount shall be deposited in security account head of AM (CS), concerned Division LESCO through Pay Order / Bank Draft with in stipulated period from the date of issue of the D.N.
8. M/s QAAP, PIEDMC will be liable to abide by all the decisions of NTDC / LESCO and will make the payment of additional amount demanded by LESCO/NTDC formation at any stage, if any. M/s QAAP, PIEDMC shall submit undertaking in this regard on stamp paper of Rs.1200/- to this office.
9. In case of Change of Tariff, variation in prices of security amount, due to escalation or additional liabilities implemented by the authority, the consumer will remain liable to deposit and full fill the same.
10. All the installed temporary connections will be disconnected / removed from site by LESCO and the cost of 11-KV Feeders (for temporary connections) will not be returned.
11. The office of C.E (P&D) LESCO shall issue Go-Ahead Signal to concerned formations for execution of work on receipt of GLO of 220/132/11-KV Grid Station (Grid-1) for QAAP,PIEDMC duly approved / issued by NTDC.
12. The CE (Development) / PD (GSC) and PD (Const.) LESCO will get the work start after issuance of go-ahead signal from this office according to the approved drawings issued by C.E Design NTDC/PEPCO by following all other departmental formalities.
13. M/s QAAP, PIEDMC will submit an undertaking to Manger (Op.) SKP Circle LESCO before energization / commissioning of grid station to the effect that they will not involve itself in resale of electricity. If any time the applicant is found to be involved in resale, LESCO will immediately take action against M/s QAAP, PIEDMC besides disconnection of their connection.
14. MAINTENANCE AND OPERATION OF GRID STATION

Grid station will be maintained by consumer and operated by the LESCO staff according to Clause 7.1.2 of "Policy for connecting a consumer grid station to the NTDC / LESCO network and its Operation and Maintenance".

QAAP will provide an undertaking on a non-judicial paper that they will obey the conditions mentioned below from "a to j" or any other conditions laterally issued regarding the maintenance and operation of their private grid station.

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- a) The LESCO shall have the right of free access at all times to 132 kV Grid Station for inspection and monitoring of the maintenance of the Grid Station so as to ensure that 132-KV Grid Station does not in any way, directly or consequentially, endanger the stability, reliability or safe operation of their network in any respect.
- b) The proper Maintenance of 132 kV Grid Station shall be the responsibility of consumer who shall ensure the necessary regular periodic maintenance of the equipment as per LESCO approved maintenance schedule for the reliable healthy operation and complete record of the maintenance shall be maintained in this regard by him for inspection of LESCO. In this connection, the consumer could also seek technical assistance and support from CE (TSG) NTDC who renders consulting services in this regard on payment.
- c) MOU will be signed by the Management of QAAP with LESCO (SE GSO) regarding the responsibility for payment of salaries wages, benefits and allowances as per present and future LESCO's rules and regulations of deputed LESCO staff for maintenance and operation of 132 KV grid station.

I. The following minimum staff shall be stationed at 132-KV Grid Station for its smooth operation:-

i)	Assistant Foreman	01
ii)	SSO-I & SSO-II	1 + 4

II. The Management of QAAP shall provide residential accommodation with facilities of electricity, sewerage, telephone and sweet water supply to the Operation Staff as under:-

i)	3-Room Quarters including one bath and kitchen built over minimum covered area of 1000 Sq. ft.	2-Nos.
ii)	2-Room Quarters including one bath and kitchen built over minimum covered area of 600 Sq. ft.	4-Nos.
iii)	a) PTCL Telephone, b) Mobile Set, c) Fax Facility.	

- d) The relay settings shall be done by NTDC/LESCO concerned and QAAP, or its staff shall not interfere with the same. M/s QAAP, PIEDMC will also arrange, entirely at its own cost and expenses, for necessary periodic relay testing/calibration (at least annually) in the presence of representatives of C.E. (System Protection) NTDC and the concerned LESCO if applicable. The relay setting calculations shall be arranged and submitted by M/s QAAP, PIEDMC to CE (System Protection) NTDC for approval. These relay settings shall be supplied on prescribed Performa of respective relay (along with detail of calculations).
- e) The operation & maintenance of the 132 KV feeding / interconnecting transmission line will invariably be done by LESCO. The O&M expenses will, however, be to the account of the M/s QAAP, PIEDMC including the expenses to be incurred for attending to a break down along with the cost of rehabilitation, if any.
- f) M/s QAAP, PIEDMC will be liable to pay a penalty in case they do not maintain / operate the equipment properly resulting into undue outages of the transmission line or any other system interruption in the network of NTDC/LESCO. The penalty shall be at the rate of Rs.150,000/- & 75,000/- per hour of the outage time in the case of NTDC and LESCO respectively.
- g) M/s QAAP, PIEDMC will provide with appropriate, reliable and fast means for direct / express communication with the relevant Control Centers besides SCADA system to be essentially made available by QAAP, as per the requirements of respective Control Centers. The necessary equipment's for the SCADA System at the source grid station shall also be arranged by QAAP, this cost when required.

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- h) 132 KV QAAP Grid Station will also be provided with necessary telemetering facility. The energy meter used for this purpose shall conform to NTDC specification P-202. The on-line metering data from revenue meters as well as meters on the distribution lines/feeders emanating from 132 KV Grid Station for service area will be transmitted to the Control Center of the LESCO. In case of QAAP Grid Stations connected to the NTDC network, the information will also be transmitted to NPCC Islamabad.
- i) M/s QAAP, PIEDMC will be bound to follow the load management instructions issued by PESCO / LESCO. In case of failure to follow the said instructions, the Control Centers will have the right to disconnect the supply to 132 KV Grid Station forthwith besides taking other appropriate measures and punitive actions in this regard. The load profile data of the energy meters on the circuits emanating from 132 KV QAAP Grid Station will be considered as sufficient evidence for compliance / non-compliance of the load management instructions.
- j) M/s QAAP, PIEDMC, will be responsible to abide by all terms and conditions, which are not only limited up to above mentioned conditions as some other conditions and provisions necessitated according to any particular operating situations, shall essentially be made a part of the connection/commercial agreement from LESCO to be executed will be abided by the QAAP Sheikhpura.
15. The required undertaking will be submitted by the M/s QAAP, PIEDMC, to the office of C.E. (P&D) LESCO copy to P.D.GSC LESCO, before energizing of the grid station. This will be ensured by P.D.GSC, LESCO.
16. M/s QAAP, PIEDMC is liable to abide by all the instructions of policy for construction of grid station issued by GM (C&M) PESCO vide his office letter No.3226-40 /GM (O) PESCO / RA dated 30-07-2010. An undertaking on a non-judicial paper will be provided by QAAP the PD GSC will ensure before construction of grid station.
17. M/s QAAP, PIEDMC will submit an undertaking before energizing of his connection that they will not extend their load beyond sanctioned limit and will not make any alteration in the grid equipment including the power transformer without prior approval of LESCO. In case of violation LESCO reserves the right to disconnect the supply.
18. The Contract for Consumer Connection and Supply of Electric Power will be signed between the LESCO (SE GSO) and M/s QAAP, PIEDMC, in accordance with the stipulations in grid code for the distribution code of LESCO under which the connection is being applied by QAAP for tapping the 32-MW load of QAAP, 132 KV grid station with 132 KV LESCO Networking.
19. M/s QAAP, PIEDMC will install power factor correction equipments at his own cost to ensure that the power factor at his premises should not fall below 90%. This shall be ensured by the Standing Technical Committee before energizing of connection at B-IV tariff.
20. Installation shall be inspected and certified by the Electric inspector Govt of Punjab for issuance of necessary Test Report & NOC before energizing of connection at B-IV tariff and same may be submitted to this office after completion of grid station for further process.

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21. Provision of clear Right-of-Way and NOC from TEPA /PHA /NHA/MOTORWAY/ City District Govt etc will be the sole responsibility of M/s QAAP, PIEDMC, in case of any dispute with Govt. agencies or private owners will be settled by QAAP, on cost deposit basis where the installations of 132 KV Towers / poles foundations with stringing work is required. M/s QAAP, PIEDMC will also deposit the difference of amount due to any change of route or requirement of excess material etc. The PD GSC may ensure the deposit of difference amount if any before energizing of the Transmission line / grid station.

22. The Separate Metering Room as per Drawing No. CEDD/3-C for housing the 132 KV Metering Panel shall be constructed at the proposed grid station with the excess near main gate proposed by C.E Design NTDC PEPCO. The Manager (Op) SKP Circle will keep the keys with his safe custody.

23. The work shall only be taken in hand by The Standing Technical Committee comprising the following officers after receiving go-ahead signal from CE (P&D) as soon as realization of capital cost and security amount is confirmed by Finance Director LESCO and AM (CS) concerned, LESCO respectively.

1)	Manager GSO LESCO.	Convener.
2)	Manager (Operation) SKP Circle LESCO.	Member
3)	Manager M&T (West) Circle LESCO.	Member
4)	Dy. Manager (Op) City SKP Division LESCO	Member

24. The Dy. Manager (P&I), WAPDA / LESCO, Dy. Manager (SS&T) LESCO, Dy. Manager (T&I) LESCO will associate The Standing Technical Committee for testing and securing the 132KV CTs, PTs, metering Panels conduit pipes etc.

25. The two No. Static (TOU) 132 KV Energy Meters of accuracy clause 0.2 for billing and back up metering may be provided by the consumer. The necessary demand notice for installation and testing fees of M&T etc or any other charges will be issued by the Manager (O) SKP Circle and got deposited by QAAP.

26. The Standing Technical Committee for grid station will adjust the relay setting to avoid any discriminate tripping of the system with the recommendation issued by the C.E. Development, LESCO.

27. The Standing Technical Committee shall observe the followings before energizing of B-IV Connection:-

- i. Metering system will be 3-Phase / 4-wire.
- ii. Control cables from P.Ts will be laid in separate steel conduit pipes. Size of control cables will be 4-core 2.5mm sq copper.
- i. Secondary connection boxes of all the 132 KV C.TS & P.Ts will be secured properly by pasting postal orders to be signed by all the Committee members.
- ii. The 11KV energy meters will be installed in proper panels/ steel cubical. This panel will have hinged door with locking / sealing arrangements Glass windows will be provided in

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the door for viewing the readings of all the meters. Proper fixing arrangements will be provided in the panel for easy installation of energy meters. Terminal blocks for each C.T / P.T circuit as mentioned above will also be provided in the panel. In addition to above, proper arrangements for earthing of all meters etc. will also be provided in the panel.

28. The **Standing Technical Committee** is directed to ensure the following:-
 - a. To check the clearance of dues against the existing connection (if any).
 - b. To check that no other connection is running at the same premises.
 - c. To check any other observations.
 - d. To dismantle any Material lying at site and returned to Store through MRN.
29. The **Standing Committee** shall ensure that after affection / energization of instant NEW CONNECTION, any other connection temporary or permanent existing in the same premises shall be disconnected permanently.
30. In case of variation in prices of material due to escalation or additional material is required to be used or any other charges detected at any later stage, QAAP will remain liable to deposit the same, for which you will submit the undertaking to the CE (Dev)LESCO.
31. All other **usual formalities** shall be fully observed by The **Standing Technical Committee** before taking the work in hand before energizing of the connection at B-IV Tariff.
32. Dy. Manager (Op) concerned Division may be directed to get **return all the dismantled material (if any) through MRN** to concerned field store after energizing of B-IV connection by observing all departmental formalities.
33. Manager (Op) SKP Circle may be directed to **watch the MDI** to restrict with in sanctioned load besides follow the implementation of load management schedule issued by PEPCO/LESCO.
34. Regional Manager M&T West may be directed to circulate the **Test Check Performa** to all concerned after duly signed by all committee members along with representative of the consumer also copy to CE (P&D) Office LESCO for record.
35. The Automatic /Manual change over switch will be provided by QAAP Ltd, in case of his own source of supply /self-generation. The proper installing / testing of the same should be ensured by Manager M&T West.
36. Manager (Op) SKP Circle may be directed to submit the SCO issued by C.E. (P&D), LESCO after completion by observing all departmental formalities to this office for record and he may also be directed to submit all required documents to the office of AM (CS) for proper billing from MIS Directorate in time.
37. PD (GSC), LESCO shall hand over said grid station to the Management of SE (GSO) with the complete set of drawings and records after getting necessary checking / testing from all concerned like P&I, T&I and SS&T divisions LESCO etc by observing all departmental formalities.
38. QAAP shall follow the **NEPRA Act 1997 clause 22(2) and electricity act 1910.**

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39. All the work shall be executed according to the WAPDA / PEPCO/LESCO Standard Design & Specifications issued by NTDC / PEPCO / LESCO.
40. All other terms and conditions of tariff B-IV of 132 kV independent grid station with independent feeding transmission arrangement shall be applicable.

DA/ DN of Capital Cost:


CHIEF ENGINEER (P&D)
LESCO H/Q, LAHORE

✓
To,

Muhammad Javed Ilyas,
CEO Punjab Industrial Estate,
Railwind Road Lahore,
At Quaid-e-Azam Apparel Park, At M-2, MotorWay,
Sheikhupura

Info:

1. Chief Financial Officer LESCO, 22-A, Queen's Road, Lahore. As soon as the above mentioned amounts are realized, it may be transferred to relevant accounts as per following distribution under intimation to this office.

Accounts of:	Description	Total Amount
PD (GSC)	Capital Cost of 132-KV Grid station and 132-KV Transmission Line	Rs.177,454,511/-
Manager M&T	M&T Charges	Rs.25,000/-
TOTAL AMOUNT		Rs.177,479,511/-

2. PD (GSC) LESCO.
3. Manager (Operation) Sheikhupura Circle, LESCO.
4. Manager (GSO) LESCO.
5. Manager (M&T) West LESCO.
6. Dy. Manager (Op) City SKP Division, LESCO.
7. Assistant Manager (CS) City SKP Division LESCO.
8. Master File.

Letter No. 6894-6901 /SKP/DRW-704

Dated: 22/11/2019


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LAHORE ELECTRIC SUPPLY COMPANY LIMITED
GRID SYSTEM CONSTRUCTION DIRECTORATE
34 - INDUSTRIAL AREA GULBERG-III LAHORE
Phone NO 042-99263256, Fax No 042 -99263255

No-PD/GSC /LESCO /-1169-73

Dated 01-02-22

Project Director

✓ Quaid - e - Azam Business Park

Commercial area (North), Sundar Industrial Estate

Sundar Raiwind road, Lahore

Subject: - TENTATIVE DEMAND NOTICE FOR 132 KV T/LINE (IN & OUT)
INCLUDING 04-NOS. LINE BAYS FOR 132 KV G/S QUAID.- E -
AZAM BUSINESS PARK.

Enclosed please find herewith the tentative demand notice for subjected work amounting to Rs. 344,801,438/- (Rupees thirty four crore forty eight lac one thousand four hundred and thirty eight only) which may be deposited in favour of Chief Financial Officer, LESCO for further necessary action, under intimation to this office.


DA / As above

1. Demand Notice


PROJECT DIRECTOR
GSC LESCO LAHORE

Copy to:

1. G.M (Tech) LESCO, Lahore
2. Chief Financial Officer LESCO, Lahore
3. Chief Engineer Development (PMU) LESCO, Lahore
4. Chief Engineer P&D LESCO, Lahore
5. XEN GC Division GSC LESCO, Lahore


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سی ڈی ایم ۶۰۶/۱۵۴
محکمہ کرشن برہنہ کوڈ نمبر ۶۰۶/۱۵۴/۶۰۳/۶۰۳

پاکستان کابجلی اور پانی کاتر قیاتی ادارہ (شعبہ برقیات)

۱۱۶۹-۷۳ ڈیما ڈولز کاسیٹے وارڈ

ڈیما ڈولز کی تاریخ اجراء
درخواست وصول کنکشن کالائٹ شدہ اکاؤنٹ/احوالہ نمبر
(جس کے تحت رقم بینک میں یا ادارہ کے متعلقہ افسر کے پاس جمع کرائی ہیں)
ادارہ کے منظور شدہ بینک کا نام
ادارہ کے متعلقہ رہنما افسر کے دفتر کا مکمل پتہ
01-02-2022
درخواست رجسٹریشن نمبر: _____
تاریخ _____
(ڈیما کنکشن بحالی کنکشن دلیور
قسم ڈیما ڈولز یا کنکشن دلیوری
مطلوبہ بجلی کی لاڈ (کلواٹ میں)
مطلوبہ سیٹلائٹ ڈولز
متعلقہ ٹریفک ٹیڈل اگر آپ نمبر

Capital Cost

ڈیما ڈولز

(اطلاع نامہ منظوری درخواست و طلبی اخراجات سرویس کنکشن)
پرت برائے درخواست دہندہ

PROJECT DIRECTOR

(درخواست دہندہ یا صارف کا نام مکمل پتہ)

QUAID-E-AZAM BUSINESS PARK COMMERCIAL AREA (NORTH) SUNDAR INDUSTRIAL ESTATE, RAIWIND ROAD LAHORE

آپ کو بذریعہ ڈیما ڈولز ہذا اطلاع دی جاتی ہے کہ آپ کی درخواست برائے حصول کنکشن بجلی جس کے کالاف اور دین کے لئے اس امر پر جانے ادارہ کی سرحد عام شرائط کنکشن کے علاوہ متعلقہ بل شرائط پر منظور کر لی ہے۔
آپ ان ڈولز کے اجراء کی تاریخ سے 30 دن کے اندر اندر مندرجہ ذیل رقم ادارہ کے منظور شدہ بینک میں یا خود ادارہ کے متعلقہ افسر کے پاس جمع کروا کر ان کی ادائیگی سے متعلق رسید سرکار درج سے دفتر کو مطلع کریں
(الف) اخراجات سرویس کنکشن برطانیہ منظور شدہ نمبر رجسٹریشن: RS:344,801,438/- (ب) رقم ادارہ کے متعلقہ افسر کے پاس جمع کرائی ہے) اگر کنکشن لگانے سے پہلے اخراجات سرویس کنکشن منظور شدہ نمبر سے زائد پائے گئے تو جمع شدہ رقم کے فرق کے برابر مزید رقم جمع کرنا ہوگی جس کے لئے اضافی ڈیما ڈولز جاری کیا جائے گا۔

(RUPEES: THIRTY FOUR CRÖRE FORTY EIGHT LAC ONE THOUSAND FOUR HUNDRED & THIRTY EIGHT Only)

- (ب) ڈیما ڈولز کے اجراء کے بعد تمام ادائیگی سائیکل مل میجرہ..... روپے (ب) رقم ادارہ کے افسر سے اخراجی مل وصولی کر کے بینک میں جمع کرائی ہے۔
نوٹ: اگر آپ گریڈ ۱۰ (کمرشل) صنعتی ٹوک سیٹلائٹ کے درخواست دہندہ یا صارف ہیں تو آپ اس سلسلہ میں ڈیما ڈولز ہذا کی کوئی پرت کو (جو آپ کے جواب کے لئے شخص کی گئی ہے) پر کریں اور اس پر اپنے دستخط و تاریخ ثبت کر کے میرے دفتر کو ابجلیجائیں۔
- آپ اس ڈولز کے اجراء کی تاریخ سے 30 دن/ماہ کے اندر اندر اپنی قمارت کی اندرونی ڈانگ کے تحت اور معیاری ہونے اور اپنے آلہ جات برائے استعمال بجلی کی تنصیب مکمل ہو جانے کے ثبوت میں گورنمنٹ کے منظور شدہ ڈانگ کنٹرولر سے شہر پورٹ حاصل کر کے برائے مزید ٹھکانہ معائنہ اور شہر میرے دفتر کو ابجلیجائیں اور رسید حاصل کریں (خالی شدہ پورٹ فارم کی پی۔ خلاف ہے)۔
- آپ نے چونکہ ادارہ کو بجلی کی سیٹلائٹ کے لئے اپنا درخواستی نمبر مہیا نہیں کیا اس لئے آپ سے ادارہ کی سرحد سرویس چارجز ٹیڈل کے مطابق..... روپے ماہوار کر ایہ مل چارج کیا جائے گا۔
- ڈیما ڈولز برائے درج ذیل متعلقہ ارسال کیا گیا ہے کنکشن کی کارروائی دونوں ڈیما ڈولز کی رقم ملیدہ طریقہ داخل ہونے کے بعد شروع ہوگی۔
(جو غیر متعلقہ ہو تو کالٹ دیا جائے)

اگر آپ نے ڈیما ڈولز ہذا کے جواب میں مندرجہ بالا شرائط کی مقررہ معیار کے اندر قیام نہ کیا تو آپ کی درخواست فارم برائے حصول بجلی کالائٹ شدہ جاری نمبر کا ڈیما ڈولز رٹگنا جائے گا۔ ڈیما ڈولز کی تاریخ اجراء سے 01 ماہ بعد خود بخود غیر معزز تصور ہوگا۔

PROJECT DIRECTOR
GSC-LESCO-LAHORE

مہر و دستخط افسر بینک

برائے استعمال بینک
(متعلقہ بینک اس پرت کو ڈیما ڈولز سے علیحدہ کر کے اپنے بینک سکروال کے ساتھ متعلقہ دفتر مہتمم بجلی کو بھیجے گا)

1- درخواست دہندہ یا صارف کا نام مکمل پتہ:

M/S QUAID-E-AZAM BUSINESS PARK-II

اداشدہ رقم کی تفصیل

- نمبر شمار کیفیت رقم رسید نمبر تاریخ ادائیگی
1- اخراجات سرویس کنکشن
- 2- درخواست رجسٹریشن نمبر تاریخ
- 3- ڈیما ڈولز کاسیٹے وارڈ نمبر تاریخ
- 4- درخواست کو کالائٹ شدہ اکاؤنٹ نمبر/حوالہ نمبر
- 5- منظور شدہ بینک کا نام

QUAID-E-AZAM BUSINESS PARK
FINANCIAL HIGHLIGHTS

BIFERCATION OF AREA AND AVAILABILITY OF PLOTS – UPTO JUNE, 2022

Quaid-e-Azam Industrial Park

Plots Detail (Industrial)			
Size	Total	Sold	Available
0.5 Acres	154	12	142
1 Acres	190	84	106
2 Acres	177	53	124
3 Acres	16	7	9
4 Acres	143	97	46
Total	680	253	427

Area Detail (Inclusive of Commercial Area)			
Total Area	Total Saleable Area	Area Sold	Available Area
1,860 Acres	1,316.95	662.68	654.27

INFORMATION RELATING TO SALE OF PLOTS – UPTO JUNE, 2022

Sr. No.	Rate per Acre	Acres Sold	Total Price	Payment Received	Balance Receivable	Refund Payable
With 100% Full Payment						
1	Rs. 13.3 million (10 % additional for Corner + Main boulevard and 5% for Front)	0.50	13,300,000	13,300,000	-	-
2	Rs. 26.6 million (10 % additional for Corner + Main boulevard and 5% for Front)	1.02	29,768,150	29,845,200	-	(77,050)
	TOTAL	1.52	43,068,150	43,145,200	-	(77,050)

FIVE (05) YEARS PROJECTED REVENUE PLAN – INDUSTRIAL

Acres to be sold	Rate per acre	Total Revenue	Terms of Payment	2022-23				2023-24			
				Q-1	Q-2	Q-3	Q-4	Q-1	Q-2	Q-3	Q-4
124.30	32	3978	30% advance and remaining in 6 installments of 4 months each	672.00	782.69	464.19	464.19	464.19	464.19	464.19	202.78
200	36	7200		-	277.56	1,403.97	1,198.55	840.24	840.24	840.24	840.24
200	40	8000		-	-	-	312.00	721.37	1,074.77	1,402.85	933.60
129.97	45	5849		-	-	-	-	-	-	-	823.50
654.27		25,026	Sub Total	672.00	1,060.25	1,868.16	1,974.74	2,025.79	2,379.19	2,707.27	2,800.12
							5,575.15				9,912.38

2024-25				2025-26				2026-27				Total Inflow
Q-1	Q-2	Q-3	Q-4	Q-1	Q-2	Q-3	Q-4	Q-1	Q-2	Q-3	Q-4	
-	-	-	-	-	-	-	-	-	-	-	-	3978.40
732.27	228.13	-	-	-	-	-	-	-	-	-	-	7201.44
933.60	933.60	812.23	578.83	298.75	-	-	-	-	-	-	-	8001.60
1,251.44	682.54	682.54	682.54	682.54	682.54	362.20	-	-	-	-	-	5849.82
2,917.31	1,844.26	1,494.77	1,261.37	981.29	682.54	362.20	-	-	-	-	-	25,031.26
			7,517.71				2,026.02				-	

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FIVE (05) YEARS PROJECTED REVENUE PLAN – COMMERCIAL

Acres to be sold	Rate per acre	Total Revenue	Terms of Payment	2022-23				2023-24			
				Q-1	Q-2	Q-3	Q-4	Q-1	Q-2	Q-3	Q-4
4.07	400	1628	30% advance and remainig in 4 installments 3 months each	-	-	-	-	-	-	-	-

2024-25				2025-26				2026-27				Total Inflow	Total Inflow
Q-1	Q-2	Q-3	Q-4	Q-1	Q-2	Q-3	Q-4	Q-1	Q-2	Q-3	Q-4		
-	488.40	284.90	284.90	284.90	284.90	-	-	-	-	-	-	0.00	-

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QUARTER WISE PROJECTED RECEIVABLE PLAN OF INSALLEMENTS

Project	Q1 2022-23	Q2 2022-23	Q3 2022-23	Q4 2022-23	Q1 2023-24	Q2 2023-24	Q3 2023-24	Q4 2023-24	Total Projected Inflow
Quaid-e-Azam Busniess Park	528.76	846.02	1,057.52	1,269.03	1,480.53	1,692.04	1,903.54	1,797.79	10,575.23

QUARTER WISE PROJECTED RECOVERY PLAN – OVERDUE RECEIVABLES

Project	Recovery - Q1 2022-23	Recovery - Q2 2022-23	Recovery - Q3 2022-23	Recovery - Q4 2022-23	TOTAL Inflow
Quaid-e-Azam Business Park	17.95	14.36	25.13	14.36	71.80

QUAID-E-AZAM BUSINESS PARK FINANCIAL PROJECT DETAIL

DEVELOPMENT COMPONENT	ESTIMATED COST OF COMPONENT (Rs. Million)	Proposed Financial Expenditure			
		Actual Incurred	2022-2023	2023-2024	2024-2025
ROAD NETWORK (INTERNAL)	6,094.00	1,452.40	2,800.00	1,500.00	342.00
WATER SUPPLY SYSTEM	1,043.00	207.00	500.00	336.00	NI
WASTEWATER COLLECTION SYSTEM	1,154.00	3.00	600.00	400.00	151.00
DRAINAGE SYSTEM FOR ROAD NETWORK	1,658.00	50.00	650.00	550.00	408.00
MISCELLANEOUS WORKS	200.00	83.24	30.00	35.00	52.00
LANDSCAPE WORK	150.00	-	30.00	80.00	40.00
MULTI-PURPOSE COMPLEX	3,000.00	461.00	1,500.00	500.00	539.00
ENTRANCE GATES (04 NOS.)	425.00	-	250.00	100.00	75.00
EXTERNAL DEVELOPMENT	404.00	204.68	100.00	50.00	50.00
INTERCHANGE	2,500.00	176.97	1,554.00	400.00	370.00
AMENITIES, PRELIMINARY & MISC. DEV EXPENSES	550.00	9.09	100.00	250.00	191.00
GAS NETWORK (EXTERNAL)	938.00	929.50	NI	NI	NI
GAS NETWORK (INTERNAL)	1,150.00	937.00	160.00	53.00	NI
INTERNAL ELECTRIFICATION	8,863.00	-	4,000.00	2,500.00	2,363.00
EXTERNAL ELECTRIFICATION	1,115.00	844.02	200.00	61.00	NI
GRID STATIONS (02 NOS.)	2,250.00	317.98	500.00	1,000.00	433.00
TEMPORARY ELECTRICITY	270.00	10.00	200.00	50.00	NI
CONSULTANCY	450.00	151.00	200.00	80.00	19.00
FIBER OPTIC / PTCL	500.00	-	500.00	NI	NI
CETP	4,000.00	-	500.00	2,000.00	1,500.00
ADMINISTRATIVE / DEPARTMENTAL EXPENSE	805.00	377.61	160.00	150.00	118.00
MARKETING EXP	302.00	104.24	100.00	50.00	48.00
CONTINGENCIES / ESCALATION ETC.	2,000.00	-	1,000.00	600.00	400.00
TOTAL ESTIMATED DEVELOPMENT COST	39,821.00	6,318.72	15,634.00	10,745.00	7,099.00
RELOCATION OF BAMB VILLAGE	400.00	NI	200.00	200.00	NI
LAND COST	3,810.00	3,788.18	21.82	NI	NI
TOTAL COST	44,031.00	10,106.90	15,855.82	10,945.00	7,099.00

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LESCO Tariff for 2022 | Electricity Unit Rates in Pakistan

LAST UPDATED ON JUNE 23, 2022 BY JOHN THOMAS

Not everybody knows about the LESCO Tariff and the difference between 2019 and 2020 electricity rates. What is the price of 1 unit of electricity? These are the facts and figures everybody wants to know about.

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It's no surprise that the schedule of electricity rates fluctuates and goes up and down with the passage of time. And it is happening a lot these days due to the renewal of agreements with IPPs (Individual power producers) so it put an immense effect on electricity prices. Well, this is a separate discussion and we will also write about the recent electricity agreement changes.

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Let's move to the point that is, what is the LESCO/Wapda unit rate and what is the electricity rate in Pakistan, etc?

Are you getting it?

Moreover, it is also a fact that the tariff amount or electricity pricing depends upon various factors. Perhaps, those factors are brought into a highlight by the electricity supply companies themselves.

First of all, let's shed some light on Peak and Off-Peak hours, and then we will talk about MEPCO Tariff and details for IESCO Tariff

Contents [hide]

LESCO Peak and Off-Peak Hours

Rates For 1 Unit of Electricity

SCHEDULE OF ELECTRICITY TARIFF W.E.F 05-11-2021

Here is the detailed breakdown of the LESCO Electricity Tariff.

A1 General Supply Tariff-Residential

SCHEDULE OF ELECTRICITY TARIFF W.E.F 12-02-2021

SCHEDULE OF ELECTRICITY TARIFF W.E.F 2019

SCHEDULE OF ELECTRICITY TARIFF W.E.F JULY 2019

SCHEDULE OF ELECTRICITY TARIFF W.E.F OCTOBER 2019

SCHEDULE OF ELECTRICITY TARIFF W.E.F DECEMBER 2019

Frequently Asked Questions

1. What is LESCO Tariff?
2. What are Peak and Off-Peak Hours?
3. What is the price of 1 unit of electricity?
4. What are LESCO Tariff Slabs?
5. How is the tariff hike controlled?
6. What are the types of tariffs?

LESCO Peak and Off-Peak Hours

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Below are the Peak and Off-Peak Hours details along with months and timings.

PEAK / OFF-PEAK TIMINGS

Season	Peak Timing	Off-Peak Timing
Dec to Feb	5 PM to 9 PM	Remaining 20 hours
Mar to May	6 PM to 10 PM	-do-
Jun to Aug	7 PM to 11 PM	-do-
Sep to Nov	6 PM to 10 PM	-do-

Rates For 1 Unit of Electricity

LESCO has a different unit price for domestic and commercial users. As inflation is rising, LESCO also has revised the Electricity per unit rate and has increased the prices.

As domestic users are more curious about unit prices so we will share unit prices for domestic or residential consumers here.

- For the 1-100 Units: 9.42 Rs. per unit
- For the 100-200 Units: 11.74 Rs. per unit
- For the Next 201-300 Units: 13.83 Rs. per unit
- For 301-400 Units: 21.23 Rs. per unit
- For 401-700 Units: 21.23 Rs. per unit
- Above 700 Units: 24.33 Rs. per unit

'Please note As per the Authority's decision residential consumers will be given the benefits of only one previous slab. That means you can not take the benefit of all slabs. Only 2 slabs will be applicable to your number of units consumed'

Here are the complete details with the unit price and technical features.

SCHEDULE OF ELECTRICITY TARIFF W.E.F 05-11-2021

Here is the detailed breakdown of the LESCO Electricity Tariff.

A1 General Supply Tariff-Residential

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff	Variable Charges (Rs/KWh)	Applicable Variable Charges
a)	For sanctioned load less than 5 kW				

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iv	a.101-200 Units	16.41	10.06
	Un-Protected		
v	001-100 Units	14.59	9.42
vi	100-200Units	16.41	11.74
vii	201-300 Units	17.53	13.83
viii	301-400 Units	19.07	21.23
ix	401-500 Units	19.07	21.23
x	501-600 Units	19.07	21.23
xi	601-700 Units	19.07	21.23
xii	Above 700 Units	20.61	24.33
b)	For Sanctioned load 5 kW & above		

	Peak	Off-Peak	Peak	Off-Peak
Time of Use	20.27	13.1	24.33	18.01

As per Authority's decision residential consumers will be given the benefits of only one previous slab

Under Tariff A-1, there shall be a minimum monthly customer charge at the following rates even if no energy is consumed.

a) Single Phase connections: Rs. 75/- per consumer per month

b) Three-phase connection: Rs.150/- per consumer per month

A2 General Supply Tariff-Commercial

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff	Variable Charges (Rs/KWh)	Applicable Variable Charges	
a)	For Sanctioned load less than 5 kW	440		19.56	21.34	
b)	For Sanctioned load 5 kW & above			19.22	23.04	
			Peak	Off-Peak	Peak	Off-Peak
c)	Time of Use	440	21.02	13.49	24.94	18.97

Under Tariff A-2, there shall be a minimum monthly customer charge at the following rates even if no energy is consumed.

a) Single-phase connections: Rs. 175/- per consumer per month

b) Three-phase connections: Rs. 350/- per consumer per month

A3 General Services

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff	Variable Charges (Rs/KWh)	Applicable Variable Charges
a)	General Services			17.05	20.9

Under Tariff A-3, there shall be a minimum monthly customer charge at the following rates even if no energy is consumed.

a) Single-phase connections: Rs. 175/- per consumer per month

✓b) Three-phase connections: Rs. 350/- per consumer per month

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B1 (a)	Up to 25 kw (at 400/230 volts)	-	18.31	-	18.62
B2(a)	exceeding 25-500 Kw (at 400 Volts)	440	17.87	-	18.12
	Time of Use		Peak	Off-Peak	Peak Off-Peak
B1 (b)	Up to 25 kw	-	21.19	13.41	22.18 16.62
B2 (b)	exceeding 25-500 Kw (at 400 Volts)	440	20.98	13.5	22.12 16.41
B3	For All Loads up to 5000 KW(at 11,33 KV)	420	21.11	12.63	22.12 16.32
B4	For All Loads (at 66,132 KV & above)	400	20.93	12.97	22.12 16.22

For B1 consumers there shall be a fixed minimum charge of Rs. 350 per month.

For B2 consumers there shall be a fixed minimum charge of Rs. 2,000 per month.

For B3 consumers there shall be a fixed minimum charge of Rs. 50,000 per month.

For B4 consumers there shall be a fixed minimum charge of Rs. 500,000 per month.

C-SINGLE POINT SUPPLY FOR PURCHASE IN BULK BY A DISTRIBUTION LICENSEE AND MIXED LOAD CONSUMERS NOT FALLEN IN ANY OTHER CONSUMER CLASS

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff	Variable Charges (Rs/KWh)	Applicable Variable Charges
C-1	For supply at 400/230 Volts				
a)	Sanctioned load less than 5 kW	-		24.36	22.02
b)	Sanctioned load 5 kW & up to 500 kW	440		21.31	21.52
C-2(a)	For supply at 11,33 kV up to and including 5000 kW	420		17.03	21.32
C-3(a)	For supply at 66 kV & above and sanctioned load above 5000 kW	400		15.11	21.22
	Time Of Use		Peak	Off-Peak	Peak Off-Peak
C-1(c)	For supply at 400/230 Volts 5 kW & up to 500 kW	440	22.43	15	24.94 18.34
C-2(b)	For supply at 11,33 kV up to and including 5000 kW	420	20.4	12.89	24.94 18.14
C-3(b)	For supply at 66 kV & above and sanctioned load above 5000 kW	400	19.51	11.68	24.94 18.04

D-AGRICULTURE TARIFF

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff	Variable Charges (Rs/KWh)	Applicable Variable Charges
D-1(a)	SCARP less than 5 KW	-		22.92	19.02
D-2(a)	Agricultural Tube Well	200		17.63	8.69
			Peak	Off-Peak	Peak Off-Peak

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Note: The consumers having sanctioned loads less than 5 kW can opt for TOU metering.

E-TEMPORARY SUPPLY TARIFF

Sr. No. Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Applicable Variable Charges
E-1(i) Residential Supply	-	21.73	24.47
E-1(ii) Commercial Supply	-	19.23	21.73
E-2 Industrial Supply	-	18.38	19.7

Note: For the categories of E-1(i&ii) above, the minimum bill of the consumers shall be Rs. 50/- per day subject to a minimum of Rs. 500/- for the entire period of supply, even if no energy is consumed.

F – Seasonal Industrial Supply TARIFF

125% of relevant Industrial Tariff

Note: Tariff F consumers will have the option to convert to regular tariff and vice versa. This option can be exercised at the time of a new connection or at the beginning of the season. Once

G-PUBLIC LIGHTING

Sr. No. Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Applicable Variable Charges
Street Lighting	-	19.02	22.02

Under Tariff-G, there shall be a minimum monthly charge of Rs. 500/- per month per kW of lamp capacity installed.

H- RESIDENTIAL COLONIES ATTACHED TO INDUSTRIAL PREMISES

Sr. No. Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Applicable Variable Charges
Residential Colonies attached to industrial premises	-	21.02	22.02

I – RAILWAY TRACTION

Sr. No. Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Applicable Variable Charges
Railway Traction	-	19.17	22.02

K-SPECIAL CONTRACTS

Sr. No. Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Applicable Variable Charges
1 Azad Jammu & Kashmir (AJK)	400	14.23	19.24
Time of Use	400	Peak 18.63 Off-Peak 11.95	Peak 24.94 Off-Peak 18.04
2 Rawat Lab	-	17.07	22.02

SCHEDULE OF ELECTRICITY TARIFF W.E.F 12-02-2021

A1 General Supply Tariff-Residential

Sr. Tariff Category/Particulars	Fixed Charges	Uniform Tariff Variable	Applicable Variable
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For Consumption exceeding 50 Units

ii	For first 100 Units	-	14.89	7.74
iii	a.101-200 Units	-	16.41	10.06
iii	b.201-300 Units	-	17.53	12.15
iv	301-700 Units	-	19.07	19.55
v	Above 700 Units	-	20.61	22.65
b)	For Sanctioned load 5 kW & above			
		Peak	Off-Peak	Peak Off-Peak
	Time of Use	-	20.27 13.1	22.65 16.33

As per Authority's decision residential consumers will be given the benefits of only one previous slab

Under Tariff A-1, there shall be a minimum monthly customer charge at the following rates even if no energy is consumed.

a) Single Phase connections: Rs. 75/- per consumer per month

b) Three-phase connection: Rs.150/- per consumer per month

A2 General Supply Tariff-Commercial

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Applicable Variable Charges
a)	For Sanctioned load less than 5 kW	440	19.56	19.95
b)	For Sanctioned load 5 kW & above		19.22	21.63
			Peak Off-Peak	Peak Off-Peak
c)	Time of Use	440	21.02 13.49	23.55 17.58

Under Tariff A-2, there shall be a minimum monthly customer charge at the following rates even if no energy is consumed.

a) Single-phase connections: Rs. 175/- per consumer per month

b) Three-phase connections: Rs. 350/- per consumer per month

A3 General Services

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Applicable Variable Charges
a)	General Services		17.05	19.51

Under Tariff A-3, there shall be a minimum monthly customer charge at the following rates even if no energy is consumed.

a) Single-phase connections: Rs. 175/- per consumer per month

b) Three-phase connections: Rs. 350/- per consumer per month

B Industrial Supply Tariff

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Applicable Variable Charges
B1	(a Up to 25 kw (at 400/230 volts)	-	18.31	- 17.23
B2(a)	exceeding 25-500 Kw (at 400 Volts)	440	17.87	- 16.73
	Time of Use		Peak Off-Peak	Peak Off-Peak

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B3	For All Loads up to 5000 KW(at 11,33 KV)	420	21.11	12.63	20.73	14.93
B4	For All Loads (at 66,132 KV & above)	400	20.93	12.97	20.73	14.83

For B1 consumers there shall be a fixed minimum charge of Rs. 350 per month.

For B2 consumers there shall be a fixed minimum charge of Rs. 2,000 per month.

For B3 consumers there shall be a fixed minimum charge of Rs. 50,000 per month.

For B4 consumers there shall be a fixed minimum charge of Rs. 500,000 per month.

C-SINGLE POINT SUPPLY FOR PURCHASE IN BULK BY A DISTRIBUTION LICENSEE AND MIXED LOAD CONSUMERS NOT FALLEN IN ANY OTHER CONSUMER CLASS

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Charges (Rs/KWh)	Variable Charges (Rs/KWh)	Applicable Variable Charges
C-1	For supply at 400/230 Volts				
a)	Sanctioned load less than 5 kW	-		24.36	20.63
b)	Sanctioned load 5 kW & up to 500 kW	440		21.31	20.13
C-	For supply at 11,33 kV up to and including 5000 kW	420		17.03	19.93
2(a)					
C-	For supply at 66 kV & above and sanctioned load above 5000 kW	400		15.11	19.83
3(a)					
	Time Of Use		Peak	Off-Peak	Peak Off-Peak
C-	For supply at 400/230 Volts 5 kW & up to 500 kW	440	22.43	15	23.55 16.95
1(c)					
C-	For supply at 11,33 kV up to and including 5000 kW	420	20.4	12.89	23.55 16.75
2(b)					
C-	For supply at 66 kV & above and sanctioned load above 5000 kW	400	19.51	11.68	23.55 16.65
3(b)					

D-AGRICULTURE TARIFF

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Charges (Rs/KWh)	Variable Charges (Rs/KWh)	Applicable Variable Charges
D-	SCARP less than 5 KW	-		22.92	17.63
1(a)					
D-	Agricultural Tube Well	200		17.63	7.3
2(a)					
			Peak	Off-Peak	Peak Off-Peak
D-	SCARP 5 KW & above	200	23.76	14.25	20.55 13.3
1(b)					
D-	Agricultural 5 KW & above	200	21.44	13.04	7.3 7.3
2(b)					

Under this tariff, there shall be minimum monthly charges Rs. 2000/- per consumer per month, even if no energy is consumed.

Note: The consumers having sanctioned load less than 5 kW can opt for TOU metering.

E-TEMPORARY SUPPLY TARIFF

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Charges (Rs/KWh)	Variable Charges (Rs/KWh)	Applicable Variable Charges
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1(ii)

E-2 Industrial Supply

18.38

18.31

Note : For the categories of E-1(i&ii) above, the minimum bill of the consumers shall be Rs. 50/- per day subject to a minimum of Rs. 500/- for the entire period of supply, even if no energy is consumed.

F – Seasonal Industrial Supply TARIFF

125% of relevant Industrial Tariff

Note: Tariff F consumers will have the option to convert to regular tariff and vice versa. This option can be exercised at the time of a new connection or at the beginning of the season. Once exercised, the option remains in force for at least one year.

G-PUBLIC LIGHTING

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Applicable Variable Charges
	Street Lighting	-	21.02	20.63

Under Tariff-G, there shall be a minimum monthly charge of Rs. 500/- per month per kW of lamp capacity installed.

H- RESIDENTIAL COLONIES ATTACHED TO INDUSTRIAL PREMISES

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Applicable Variable Charges
	Residential Colonies attached to industrial premises	-	21.02	20.63

I – RAILWAY TRACTION

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Applicable Variable Charges
	Railway Traction	-	19.17	20.63

K-SPECIAL CONTRACTS

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Applicable Variable Charges
1	Azad Jammu & Kashmir (AJK)	400	14.23	17.55
	Time of Use	400	Peak 18.63 Off-Peak 11.95	Peak 23.55 Off-Peak 16.65
2	Rawat Lab	-	17.07	20.63

SCHEDULE OF ELECTRICITY TARIFF W.E.F 2019

A1 General Supply Tariff-Residential

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Nepa Variable Charges Rs/kwh	Applicable Variable Charges	Government Subsidy Fixed Charges Rs/Kw/M	Variable Charges Rs/Kw/M
a)	For Sanctioned load less than 5 kW						
1	Up to 50 Units	-	4.00	4.0	2.0		2.0

✓ For Consumption exceeding 50

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iii	b.201-300 Units	-	16.83	15.27	10.20	5.07
iv	301-700 Units	-	18.54	16.91	17.60	-0.69
v	Above 700 Units	-	20.94	19.24	20.70	-1.46

b) For Sanctioned load 5 kW & above

		Peak	Off-Peak	Peak	Off-Peak	Peak	Off-Peak	Peak	Off-Peak
Time of Use	-	19.33	12.80	18.81	12.5	20.70	14.38	-	-1.89 -1.88

As per Authority's decision residential consumer will be given the benefits of only one previous slab

Under Tariff A-1, there shall be minimum monthly customer charge at the following rates even if no energy is consumed.

- a) Single Phase connections: Rs. 75/- per consumer per month
b) Three phase connection: Rs.150/- per consumer per month

A2 General Supply Tariff-Commercial

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff		Nepra VariableApplicable				Government Subsidy	
			Variable Charges (Rs/KWh)		Charges Rs/kwh		Variable Charges		Fixed Charges Rs/Kw/M	Variable Charges Rs/Kw/M
a)	For Sanctioned load less than 5 kW		19.26		19.08	-	18	-		1.08
b)	For Sanctioned load 5 kW & above	400.00	18.01		16.81	-	19.68	-		-2.87
			Peak	Off-Peak	Peak	Off-Peak	Peak	Off-Peak		Peak Off-Peak
c)	Time of Use	400.00	20.09	13.48	19.18	12.26	21.6	15.63	-	-2.42 -3.37

Under Tariff A-2, there shall be minimum monthly customer charge at the following rates even if no energy is consumed.

- a) single phase connections: Rs. 175/- per consumer per month
b) Three phase connections: Rs. 350/- per consumer per month

A3 General Services

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Nepra Variable Charges		Applicable Variable Charges		Government Subsidy	
				Rs/kwh				Fixed Charges Rs/Kw/M	Variable Charges Rs/Kw/M
a)	General Services		17.56		17.6	-	17.56	-	0.04

Under Tariff A-3, there shall be minimum monthly customer charge at the following rates even if no energy is consumed.

- a) single phase connections: Rs. 175/- per consumer per month
b) Three phase connections: Rs. 350/- per consumer per month

B Industrial Supply Tariff

Sr. No.	Tariff Category/Particulars	Fixed	Uniform Tariff		Nepra Variable		Applicable		Government Subsidy		
		Charges Rs/KW/M	Variable Charges (Rs/KWh)		Charges Rs/kwh		Variable Charges		Fixed Charges Rs/Kw/M	Variable Charges Rs/Kw/M	
B1	(a)Up to 25 kw (at 400/230 volts)	-		18.32		17.59	-	15.28	-	2.31	
B2	(a)exceeding 25-500 Kw (at 400 Volts)	400.00		15.79		14.95	-	14.78	-	0.17	
	Time of Use		Peak	Off-Peak	Peak	Off-Peak	Peak	Off-Peak		Peak	Off-Peak

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B3

For All Loads up to 5000 KW(at 11,33 KV)	380.00	20.39	12.61	20.58	11.61	18.78	12.98	-	1.8	-1.37
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B4 For All Loads (at 66,132 KV & above)	360.00	20.27	13.25	20.25	12	18.78	12.88	-	1.47	-0.88
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For B1 consumers there shall be fixed minimum charge of Rs. 350 per month.

For B2 consumers there shall be fixed minimum charge of Rs. 2,000 per month.

For B3 consumers there shall be fixed minimum charge of Rs. 50,000 per month.

For B4 consumers there shall be fixed minimum charge of Rs. 500,000 per month.

C-SINGLE POINT SUPPLY FOR PURCHASE IN BULK BY A DISTRIBUTION LICENSEE AND MIXED LOAD CONSUMERS NOT FALLEN IN ANY OTHER CONSUMER CLASS

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)		Nepra Variable Charges Rs/kwh		Applicable Variable Charges		Government Subsidy Fixed Charges Rs/Kw/M		Variable Charges Rs/Kw/M	
C-1	For supply at 400/230 Volts											
a)	Sanctioned load less than 5 kW	-	21.32		16.2		18.68		-		-2.48	
b)	Sanctioned load 5 kW & up to 500 kW	400	20.13		15.7		18.18		-		-2.48	
C-	For supply at 11,33 kV up to and 2(a) including 5000 kW	380	15.61		15.21		17.98		-		-2.77	
C-	For supply at 66 kV & above and 3(a) sanctioned load above 5000 kW	360	14.42		13.97		17.88		-		-3.91	
	Time Of Use		Peak	Off Peak	Peak	Off Peak	Peak	Off Peak			Peak	Off-Peak
C-1	For supply at 400/230 Volts 5 kW & up to 500 kW	400	21.52	14.99	19	12.5	21.6	15	-		-2.6	-2.5
C-	For supply at 11,33 kV up to and 2(b) including 5000 kW	380	19.73	12.57	19	12.1	21.6	14.8	-		-2.6	-2.7
C-	For supply at 66 kV & above and 3(b) sanctioned load above 5000 kW	360	18.49	11.59	19	12	21.6	14.7	-		-2.6	-2.7

D-AGRICULTURE TARIFF

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)		Nepra Variable Charges Rs/kwh		Applicable Variable Charges		Government Subsidy Fixed Charges Rs/Kw/M		Variable Charges Rs/Kw/M	
D-1(a)	SCARP less than 5 KW	-	23.17		23.17		15.68		-		7.49	
D-2	Agricultural Tube Well	200	14.56		14.56		5.35		-		9.21	
			Peak	Off Peak	Peak	Off Peak	Peak	Off-Peak			Peak	Off-Peak
D-1(b)	SCARP 5 KW & above	200	20.87	14.03	22	12.02	18.6	11.35	-		3.4	0.67

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Note: The consumers having sanctioned load less than 5 kW can opt for TOU metering.

E-TEMPORARY SUPPLY TARIFF

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Nepa Variable Charges Rs/kwh	Applicable Variable Charges	Government Subsidy	
						Fixed Charges Rs/Kw/M	Variable Charges Rs/Kw/M
E-1(i)	Residential Supply	-	20.84	18.15	20.84	-	-2.69
E-1(ii)	Commercial Supply	-	18.39	18.47	18.39	-	0.08
E-2	Industrial Supply	-	16.36	14.70	16.36	-	-1.66

Note: For the categories of E-1(i&ii) above, the minimum bill of the consumers shall be Rs. 50/- per day subject to a minimum of Rs. 500/- for the entire period of supply, even if no energy is consumed.

F – Seasonal Industrial Supply TARIFF

125% of relevant Industrial Tariff

Note: Tariff F consumers will have the option to convert to regular tariff and vice versa. This option can be exercised at the time of a new connection or at the beginning of the season. Once exercised, the option remains in force for at least one year.

G-PUBLIC LIGHTING

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Nepa Variable Charges Rs/kwh	Applicable Variable Charges	Government Subsidy	
						Fixed Charges Rs/Kw/M	Variable Charges Rs/Kw/M
	Street Lighting	-	18.78	19.78	18.68		1.1

Under Tariff-G, there shall be a minimum monthly charge of Rs. 500/- per month per kW of lamp capacity installed.

H- RESIDENTIAL COLONIES ATTACHED TO INDUSTRIAL PREMISES

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Nepa Variable Charges Rs/kwh	Applicable Variable Charges	Government Subsidy	
						Fixed Charges Rs/Kw/M	Variable Charges Rs/Kw/M
	Residential Colonies attached to Industrial premises	-	18.42	20.39	- 18.68		1.71

I – RAILWAY TRACTION

Sr. No.	Tariff Category/Particulars	Fixed Charges Rs/KW/M	Uniform Tariff Variable Charges (Rs/KWh)	Nepa Variable Charges Rs/kwh	Applicable Variable Charges	Government Subsidy	
						Fixed Charges Rs/Kw/M	Variable Charges Rs/Kw/M
	Railway Traction	-	17.9	17.9	18.68		-0.78

J- SPECIAL CONTRACTS UNDER NEPRA (SUPPLY OF POWER)

Government Subsidy

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J-1	For supply of 66 kv & above and having sactioned load of 20MW & above	360.00	16.14		11.77	17.88				-6.11
J-2(a)	For supply at 11,33 kv	380.00	16.46		14.1	17.98				-3.88
J-2(b)	For supply at 66 kv & above	360.00	16.36		14	-	17.88			-3.88
J-3(a)	For supply at 11,33 kv	380.00	16.46		14.1	-	17.98			-3.88
J-3(b)	For supply at 66 kv & above	360.00	16.36		14	-	17.88			-3.88
	Time of Use		Peak	Off-Peak	Peak	Off-Peak	Peak	Off-Peak		Peak Off-Peak
J-1 (b)	For supply of 66 kv & above and having sactioned load of 20MW & above	360	20.66	14.33	18.60	11.62	21.60	14.70	-	-3.0 -3.08
J-2 (c)	For supply at 11,33 kv	380.00	20.66	14.44	18.60	11.72	21.60	14.80	-	-3.0 -3.08
J-2(d)	For supply at 66 kv & above	360.00	20.66	14.33	18.60	11.62	21.60	14.70	-	-3.0 -3.08
J-3(c)	For supply at 11,33 kv	380.00	20.66	14.44	18.60	11.72	21.60	14.80	-	-3.0 -3.08
J-3(d)	For supply at 66 kv & above	360.00	20.66	14.33	18.60	11.62	21.60	14.70	-	-3.0 -3.08

Note:

1:- Neelum Jhelum Surcharge at rate of Rs. 0.10 per KWh on all electricity consumers except lifeline domestic consumers of the category 'Residential-A' for Electricity Sold.

2:- Financial Cost Surcharge at the rate of Rs. 0.43 per KWh applicable to all the categories of Electricity Consumers except lifeline domestic consumers of the Category 'Residential-A' for Electricity sold.

SCHEDULE OF ELECTRICITY TARIFF W.E.F JULY 2019

A1 General Supply Tariff-Residential

Sr. No.	Tariff Category/Particulars	Uniform Qtrly Adjustment 1st & 2nd Qtr FY 2018-19 (Rs/KWh)	Applicable Uniform Qtrly Adjustment 1st & 2nd Qtr FY 2018-19 (Rs/KWh)
a)	For Sanctioned load less than 5 kW		
i	Up to 50 Units		
	For Consumption exceeding 50 Units		-
ii	For first 100 Units	1.49	-
iii	a.101-200 Units	1.49	
iii	b.201-300 Units	1.49	
iv	301-700 Units	1.49	0.75
v	Above 700 Units	1.49	0.75
b)	For Sanctioned load 5 kW & above		

Peak Off-Peak Peak Off-Peak

Time of Use

1.49 1.49 0.75 0.75

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	1st & 2nd Qtr FY 2018-19 (Rs/KWh)		1st & 2nd Qtr FY 2018-19 (Rs/KWh)	
a) For Sanctioned load less than 5 kW	1.49			
b) For Sanctioned load 5 kW & above	1.49		1.80	
	Peak	Off-Peak	Peak	Off-Peak
c) Time of Use	1.49	1.49	1.80	1.80

A3 General Services

Sr. No.	Tariff Category/Particulars	Uniform Qtrly Adjustment 1st & 2nd Qtr FY 2018-19 (Rs/KWh)	Applicable Uniform Qtrly Adjustment 1st & 2nd Qtr FY 2018-19 (Rs/KWh)
a)	General Services	1.49	1.80

B Industrial Supply Tariff

Sr. No.	Tariff Category/Particulars	Uniform Qtrly Adjustment 1st & 2nd Qtr FY 2018-19 (Rs/KWh)	Applicable Uniform Qtrly Adjustment 1st & 2nd Qtr FY 2018-19 (Rs/KWh)
B1 (a)	Up to 25 kw (at 400/230 volts)	1.49	1.80
B2(a)	exceeding 25-500 Kw (at 400 Volts)	1.49	1.80
	Time of Use	Peak	Off-Peak
B1 (b)	Up to 25 kw	1.49	1.80
B2 (b)	exceeding 25-500 Kw (at 400 Volts)	1.49	1.80
B3	For All Loads up to 5000 KW(at 11,33 KV)	1.49	1.80
B4	For All Loads (at 66,132 KV & above)	1.49	1.80

C-SINGLE POINT SUPPLY FOR PURCHASE IN BULK BY A DISTRIBUTION LICENSEE AND MIXED LOAD CONSUMERS NOT FALLEN IN ANY OTHER CONSUMER CLASS

Sr. No.	Tariff Category/Particulars	Uniform Qtrly Adjustment 1st & 2nd Qtr FY 2018-19 (Rs/KWh)	Applicable Uniform Qtrly Adjustment 1st & 2nd Qtr FY 2018-19 (Rs/KWh)
C-1	For supply at 400/230 Volts		
a)	Sanctioned load less than 5 kW	1.49	1.80
b)	Sanctioned load 5 kW & up to 500 kW	1.49	1.80
C-2(a)	For supply at 11,33 kV up to and including 5000 kW	1.49	1.80
C-3(a)	For supply at 66 kV & above and sanctioned load above 5000 kW	1.49	1.80
	Time Of Use	Peak	Off-Peak
C-1(c)	For supply at 400/230 Volts 5 kW & up to 500 kW	1.49	1.80
C-2(b)	For supply at 11,33 kV up to and including 5000 kW	1.49	1.80

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	1st & 2nd Qtr FY 2018-19 (Rs/KWh)		1st & 2nd Qtr FY 2018-19 (Rs/KWh)	
	Peak	Off-Peak	Peak	Off-Peak
D-1(a) SCARP less than 5 KW	1.49		1.80	
D-2(a) Agricultural Tube Well	1.49		1.49	
D-1(b) SCARP 5 KW & above	1.49	1.49	1.80	1.80
D-2(b) Agricultural 5 KW & above	1.49	1.49	1.49	1.49

E-TEMPORARY SUPPLY TARIFF

Sr. No.	Tariff Category/Particulars	Uniform Qtrly Adjustment	Applicable Uniform Qtrly Adjustment
		1st & 2nd Qtr FY 2018-19 (Rs/KWh)	1st & 2nd Qtr FY 2018-19 (Rs/KWh)
E-1(I) Residential Supply		1.49	1.80
E-1(II) Commercial Supply		1.49	1.80
E-2 Industrial Supply		1.49	1.80

F – Seasonal Industrial Supply TARIFF

125% of relevant Industrial Tariff

G-PUBLIC LIGHTING

Sr. No.	Tariff Category/Particulars	Uniform Qtrly Adjustment	Applicable Uniform Qtrly Adjustment
		1st & 2nd Qtr FY 2018-19 (Rs/KWh)	1st & 2nd Qtr FY 2018-19 (Rs/KWh)
	Street Lighting	1.49	1.80

H- RESIDENTIAL COLONIES ATTACHED TO INDUSTRIAL PREMISES

Sr. No.	Tariff Category/Particulars	Uniform Qtrly Adjustment	Applicable Uniform Qtrly Adjustment
		1st & 2nd Qtr FY 2018-19 (Rs/KWh)	1st & 2nd Qtr FY 2018-19 (Rs/KWh)
	Residential Colonies attached to industrial premises	1.49	1.80

I – RAILWAY TRACTION

Sr. No.	Tariff Category/Particulars	Uniform Qtrly Adjustment	Applicable Uniform Qtrly Adjustment
		1st & 2nd Qtr FY 2018-19 (Rs/KWh)	1st & 2nd Qtr FY 2018-19 (Rs/KWh)
	Railway Traction	1.49	1.80

J- SPECIAL CONTRACTS UNDER NEPRA (SUPPLY OF POWER)

Sr. No.	Tariff Category/Particulars	Uniform Qtrly Adjustment	Applicable Uniform Qtrly Adjustment

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J-2(a) For supply at 11,33 kv	1.49	1.80
J-2(b) For supply at 66 kv & above	1.49	1.80
J-3(a) For supply at 11,33 kv	1.49	1.80
J-3(b) For supply at 66 kv & above	1.49	1.80
Time of Use	Peak	Off-Peak
J-1 (b) For supply of 66 kv & above and having sanctioned load of 20MW & above	1.49	1.80
J-2 (c) For supply at 11,33 kv	1.49	1.80
J-2(d) For supply at 66 kv & above	1.49	1.80
J-3(c) For supply at 11,33 kv	1.49	1.80
J-3(d) For supply at 66 kv & above	1.49	1.80

SCHEDULE OF ELECTRICITY TARIFF W.E.F OCTOBER 2019

A1 General Supply Tariff-Residential

Sr. No.	Tariff Category/Particulars	Uniform Annual D.M and Qtrly Adjustment (Rs/KWh)	Applicable Uniform Annual D.M and Qtrly Adjustment (Rs/KWh)
a)	For Sanctioned load less than 5 kW		
i	Up to 50 Units		
	For Consumption exceeding 50 Units	-	-
ii	For first 100 Units	0.53	-
iii	a.101-200 Units	0.53	
iii	b.201-300 Units	0.53	
iv	301-700 Units	0.53	0.53
v	Above 700 Units	0.53	0.53
b)	For Sanctioned load 5 kW & above		
	Time of Use	Peak	Off-Peak
		0.53	0.53

A2 General Supply Tariff-Commercial

Sr. No.	Tariff Category/Particulars	Uniform Annual D.M and Qtrly Adjustment (Rs/KWh)	Annual D.M and Qtrly Adjustment (Rs/KWh)
a)	For Sanctioned load less than 5 kW	0.53	0.53
b)	For Sanctioned load 5 kW & above	0.53	0.53
	Time of Use	Peak	Off-Peak
c)		0.53	0.53

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a) General Services	0.53	0.53
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B Industrial Supply Tariff

Sr. No.	Tariff Category/Particulars	Uniform Annual D.M and Qtrly Adjustment (Rs/KWh)		Annual D.M and Qtrly Adjustment (Rs/KWh)	
B1	(a) Up to 25 kw (at 400/230 volts)	0.53		0.53	
B2	(a) exceeding 25-500 Kw (at 400 Volts)	0.53		0.53	
	Time of Use	Peak	Off-Peak	Peak	Off-Peak
B1	Up to 25 kw	0.53	0.53	0.53	0.53
B2	exceeding 25-500 Kw (at 400 Volts)	0.53	0.53	0.53	0.53
B3	For All Loads up to 5000 KW(at 11,33 KV)	0.53	0.53	0.53	0.53
B4	For All Loads (at 66,132 KV & above)	0.53	0.53	0.53	0.53

C-SINGLE POINT SUPPLY FOR PURCHASE IN BULK BY A DISTRIBUTION LICENSEE AND MIXED LOAD CONSUMERS NOT FALLEN IN ANY OTHER CONSUMER CLASS

Sr. No.	Tariff Category/Particulars	Uniform Annual D.M and Qtrly Adjustment (Rs/KWh)		Annual D.M and Qtrly Adjustment (Rs/KWh)	
C-1	For supply at 400/230 Volts				
a)	Sanctioned load less than 5 kW	0.53		0.53	
b)	Sanctioned load 5 kW & up to 500 kW	0.53		0.53	
C-	For supply at 11,33 kV up to and including 5000				
2(a)	kW	0.53		0.53	
C-	For supply at 66 kV & above and sanctioned load				
3(a)	above 5000 kW	0.53		0.53	
	Time Of Use	Peak	Off-Peak	Peak	Off-Peak
C-1(c)	For supply at 400/230 Volts 5 kW & up to 500 kW	0.53	0.53	0.53	0.53
C-	For supply at 11,33 kV up to and including 5000				
2(b)	kW	0.53	0.53	0.53	0.53
C-	For supply at 66 kV & above and sanctioned load				
3(b)	above 5000 kW	0.53	0.53	0.53	0.53

D-AGRICULTURE TARIFF

Sr. No.	Tariff Category/Particulars	Uniform Annual D.M and Qtrly Adjustment (Rs/KWh)		Annual D.M and Qtrly Adjustment (Rs/KWh)	
D-1(a)	SCARP less than 5 KW	0.53		0.53	
✓D-1	Agricultural Tube Well	0.53		0.53	

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D- 2(b)	Agricultural 5 KW & above	0.53	0.53	0.53	0.53
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E-TEMPORARY SUPPLY TARIFF

Sr. No.	Tariff Category/Particulars	Uniform Annual D.M and Qtrly Adjustment (Rs/KWh)	Annual D.M and Qtrly Adjustment (Rs/KWh)
E-1(i)	Residential Supply	0.53	0.53
E-1(ii)	Commercial Supply	0.53	0.53
E-2	Industrial Supply	0.53	0.53

F - Seasonal Industrial Supply TARIFF

125% of relevant Industrial Tariff

G-PUBLIC LIGHTING

Sr. No.	Tariff Category/Particulars	Uniform Annual D.M and Qtrly Adjustment (Rs/KWh)	Annual D.M and Qtrly Adjustment (Rs/KWh)
	Street Lighting	0.53	0.53

H- RESIDENTIAL COLONIES ATTACHED TO INDUSTRIAL PREMISES

Sr. No.	Tariff Category/Particulars	Uniform Annual D.M and Qtrly Adjustment (Rs/KWh)	Annual D.M and Qtrly Adjustment (Rs/KWh)
	Residential Colonies attached to industrial premises	0.53	0.53

I - RAILWAY TRACTION

Sr. No.	Tariff Category/Particulars	Uniform Annual D.M and Qtrly Adjustment (Rs/KWh)	Annual D.M and Qtrly Adjustment (Rs/KWh)
	Railway Traction	0.53	0.53

J- SPECIAL CONTRACTS UNDER NEPRA (SUPPLY OF POWER)

Sr. No.	Tariff Category/Particulars	Uniform Annual D.M and Qtrly Adjustment (Rs/KWh)	Applicable Uniform Annual D.M and Qtrly Adjustment (Rs/KWh)
J-1	For supply of 66 kv & above and having sanctioned load of 20MW & above	0.53	0.53
J-2(a)	For supply at 11,33 kv	0.53	0.53
J-2(b)	For supply at 66 kv & above	0.53	0.53
J-3(a)	For supply at 11,33 kv	0.53	0.53
J-3(b)	For supply at 66 kv & above	0.53	0.53

✓	Time of Use	Peak	Off-Peak	Peak	Off-Peak
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(c)

J-2(d) For supply at 66 kv & above	0.53	0.53	0.53	0.53
J-3(c) For supply at 11,33 kv	0.53	0.53	0.53	0.53
J-3(d) For supply at 66 kv & above	0.53	0.53	0.53	0.53

S.R.O 1168(I)2019. -Pursuant to section 31(7) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997, the Federal Government notifies the adjustment in the approved tariff. on account of periodic adjustment for 3rd and 4th Quarters of FY 2018-19 and annual indexation/adjustment of distribution margin with the immediate application as determined and recommended by National Electric Power Regulatory Authority (NEPRA) vide decisions both dated September 27, 2019, in respect of Lahore Electric Supply Company Limited (LESCO), as Schedule I, IIA & IIB by way of amendment in its notification no. SRO. 05(1) 2019 dated January 1, 2019

The above adjustments are being notified along with tariff differential subsidy for lifeline, domestic consumers consuming up to 300 units, and the additional charge of Rs. 0.30 per unit for maintaining a uniform tariff on all categories of consumers (except for lifeline and domestic consumers consuming up to 300 units) so that the consolidated revenue requirement approved and determined by NEPRA on September 27, 2019 is maintained. The said adjustment shall be shown separately in the consumers' bill by the XWDISCOs and applicable for next twelve-monthly billing cycles effective from October 1st, 2019.

SCHEDULE OF ELECTRICITY TARIFF W.E.F DECEMBER 2019

A1 General Supply Tariff-Residential

Sr. No.Tariff Category/Particulars	Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)		Applicable Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)	
	Peak	Off-Peak	Peak	Off-Peak
a) For Sanctioned load less than 5 kW				
i Up to 50 Units				
For Consumption exceeding 50 Units			-	-
ii For first 100 Units	0.15		-	
iii a.101-200 Units	0.15			
iii b.201-300 Units	0.15			
iv 301-700 Units	0.15		0.07	
v Above 700 Units	0.15		0.07	
b) For Sanctioned load 5 kW & above				
Time of Use	0.15	0.15	0.07	0.07

A2 General Supply Tariff-Commercial

Sr. No.Tariff Category/Particulars	Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)		Applicable Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)	
	Peak	Off-Peak	Peak	Off-Peak
✓a) For Sanctioned load less than 5 kW	0.15		0.15	

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A3 General Services

Sr. No.Tariff Category/Particulars	Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)	Applicable Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)
a) General Services	0.15	0.15

B Industrial Supply Tariff

Sr. No.Tariff Category/Particulars	Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)	Applicable Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)
B1 (a) Up to 25 kw (at 400/230 volts)	0.15	0.15
B2(a) exceeding 25-500 Kw (at 400 Volts)	0.15	0.15
Time of Use	Peak Off-Peak	Peak Off-Peak
B1 (b) Up to 25 kw	0.15 0.15	0.15 0.15
B2 (b) exceeding 25-500 Kw (at 400 Volts)	0.15 0.15	0.15 0.15
B3 For All Loads up to 5000 KW(at 11,33 KV)	0.15 0.15	0.15 0.15
B4 For All Loads (at 66,132 KV & above)	0.15 0.15	0.15 0.15

C-SINGLE POINT SUPPLY FOR PURCHASE IN BULK BY A DISTRIBUTION LICENSEE AND MIXED LOAD CONSUMERS NOT FALLEN IN ANY OTHER CONSUMER CLASS

Sr. No.Tariff Category/Particulars	Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)	Applicable Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)
C-1 For supply at 400/230 Volts		
a) Sanctioned load less than 5 kW	0.15	0.15
b) Sanctioned load 5 kW & up to 500 kW	0.15	0.15
C-2(a) For supply at 11,33 kV up to and including 5000 kW	0.15	0.15
C-3(a) For supply at 66 kV & above and sanctioned load above 5000 kW	0.15	0.15
Time Of Use	Peak Off-Peak	Peak Off-Peak
C-1(c) For supply at 400/230 Volts 5 kW & up to 500 kW	0.15 0.15	0.15 0.15
C-2(b) For supply at 11,33 kV up to and including 5000 kW	0.15 0.15	0.15 0.15
C-3(b) For supply at 66 kV & above and sanctioned load above 5000 kW	0.15 0.15	0.15 0.15

D-AGRICULTURE TARIFF

Sr. No.Tariff Category/Particulars	Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)	Applicable Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)
✓ D-1(a) SCARP less than 5 KW	0.15	0.15

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D-2(b) Agricultural 5 KW & above

0.15 0.15

0.15 0.15

E-TEMPORARY SUPPLY TARIFF

Sr. No.Tariff Category/Particulars

Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)	Applicable Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)
---	--

E-1(i) Residential Supply

0.15

0.15

E-1(ii) Commercial Supply

0.15

0.15

E-2 Industrial Supply

0.15

0.15

F – Seasonal Industrial Supply TARIFF

125% of relevant Industrial Tariff

G-PUBLIC LIGHTING

Sr. No.Tariff Category/Particulars

Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)	Applicable Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)
---	--

Street Lighting

0.15

0.15

H- RESIDENTIAL COLONIES ATTACHED TO INDUSTRIAL PREMISES

Sr. No.Tariff Category/Particulars

Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)	Applicable Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)
---	--

Residential Colonies attached to industrial premises

0.15

0.15

I – RAILWAY TRACTION

Sr. No.Tariff Category/Particulars

Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)	Applicable Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)
---	--

Railway Traction

0.15

0.15

J- SPECIAL CONTRACTS UNDER NEPRA (SUPPLY OF POWER)

Sr. No.Tariff Category/Particulars

Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)	Applicable Uniform Qtrly Adjustment 1st Qtr. 2019-20 (Rs/KWh)
---	--

J-1 For supply of 66 kv & above and having sactioned load of 20MW & above

0.15

0.15

J-2(a) For supply at 11,33 kv

0.15

0.15

J-2(b) For supply at 66 kv & above

0.15

0.15

J-3(a) For supply at 11,33 kv

0.15

0.15

J-3(b) For supply at 66 kv & above

0.15

0.15

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J-2(d) For supply at 66 kv & above	0.53	0.15	0.15	0.15
J-3(c) For supply at 11,33 kv	0.53	0.15	0.15	0.15
J-3(d) For supply at 66 kv & above	0.53	0.15	0.15	0.15

S.R.O 1471(I)2019. -Pursuant to section 31(7) of the Regulation of Generation, Transmission, and Distribution of Electric Power Act, 1997, the Federal Government notifies the adjustment in the approved tariff, on account of periodic adjustment for 1st Quarter of FY 2019-20 as determined and recommended by National Electric Power Regulatory Authority (NEPRA) vide decisions of November 26, 2019, in respect of Lahore Electric Supply Company Limited (LESCO), as Schedule I, II.

The above adjustments are being notified along with tariff differential subsidy for lifeline, domestic consumer, and the additional charge of Rs. 0.11 per unit for maintaining a uniform tariff on all categories of consumers (domestic consumers) so that the consolidated revenue requirement approved and determined by NEPRA on November 26, 2019, is maintained. The said adjustment shall be shown separately in the consumers' bill by the XWDISCOs and applicable for the next twelve-monthly billing cycles effective from December 1st 2019.

Frequently Asked Questions

1. What is LESCO Tariff?

LESCO Tariff is the pricing plan for their consumers that what they are charging for each unit per month. However, the total amount of tariff includes the tax amount, electricity usage, and the cost of the produced and supplied electrical energy.

2. What are Peak and Off-Peak Hours?

The principal difference between Peak and Off-Peak hours is the price per unit. Due to the demand and consumption curve, peak hours' units get pricier. So try to reduce your electricity usage in between peak hours.

Peak hours are usually 5 PM to 11 PM but these timings fluctuate in the summer and winter seasons.

- Dec to Feb – 5 to 9 PM
- Mar to May – 6 to 10 PM
- Jun to Aug – 7 to 11 PM
- Sep to Nov – 6 to 10 PM

Rest are off-peak hours that are 20 hours.

3. What is the price of 1 unit of electricity?

Electricity price changes with each consumer type. If you are a domestic consumer, charges would be a little bit low for you. For industrial connections, prices go a little bit higher due to the heavy usage of electricity.

For 1 unit of electricity, the unit price for domestic consumers is Rs-9.42 per unit for 1st 100 units and after 1st 100 units, it will go up towards Rs-11.74 per unit according to NEPRA (Variable Charges) and so on.



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Read More: You can also [check your LESCO Bill](#) Here.

4. What are LESCO Tariff Slabs?

LESCO Tariff Slab is a correlation between units consumed and the price for each unit. LESCO has a fixed rate for each slab and number of units so it facilitates the consumer according to their usage and needs.

5. How is the tariff hike controlled?

When the tariff is likely to go on an increasing level, there are various methods through which it can be controlled. Besides controlling the tariff some measures are used by the government and the authorities to limit the price hike.

Learn more!

Tariff can be controlled through:

- Introducing well-formed flexible policies
- Finalize annual tariff or rates after renewing agreements
- Enhance efficiency transmission of Electricity
- Prevent Electricity Theft
- Consulting stakeholders

6. What are the types of tariffs?

Meanwhile, here we will discuss some of the key types of tariffs that are related to electricity and power supply.

Furthermore, this includes a Two-part tariff, Three-part tariff, Straight-line meter, and Seasonal or peak meter tariff. Thus, these are some of the most important tariff types.

However, there are many other tariffs also. Thus, if you want to know more about tariff-related details, then read more! If you also want to learn about [LESCO Customer Services](#) you may click on this link to read more about it.

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NATIONAL TRANSMISSION & DESPATCH CO. LTD (NTDC)

General Manager Planning Power, NTDC

No. GMPP/CEMP/TRP-300/15555

Dated: 11-04-2017

Chief Engineer Electrical (PIEDMC)
Commercial Area (North) Sundar Industrial Estate,
Sundar-Raiwind Road, Lahore.
Fax #: +92-42-35297207

Sub: Submission of Draft Study Report of Power Supply Scheme for 2x120 MW Load Demand for Quaid-e-Azam Apparel Park (QAAP) Sheikhpura under M/s Punjab Industrial Estates Development & Management Company (PIEDMC)

Ref: (i) M/s PIEDMC letter No. PIE/ELECT/QAAP/NTDC-3265 dated 07-03-2017.
(ii) Energy Department letter No. CE(P)/240/DS dated 10-02-2017

Enclosed please find herewith two copies of the system study report of the proposed power supply scheme to feed 2x120 MW load demand for Quaid-e-Azam Apparel Park (QAAP) Sheikhpura under M/s Punjab Industrial Estates Development & Management Company (PIEDMC). The report contains the proposed power supply scheme for QAAP and the results of load flow and short circuit studies.

DA/As Above

(Imtiaz Ahmad Shad)
Chief Engineer Master Planning

cc:

- General Manager (Service Division) NTDC, Wapda House, Lahore. (Fax: 042-99204185)
- Chief Engineer (Power), Energy Department, 1st Floor Central Design Building, Irrigation Secretariat, Old Anarkali Lahore. (Fax: 042-99212796)
- Master File (MP)

SAMI SAAD
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**National Transmission and Despatch Company
Limited (NTDC)**



**System Study Report for Power Supply Scheme
to Feed Load Demand of
Quaid-e-Azam Apparel Park (QAAP) Sheikhpura**

(Draft Report)

**Planning (Power) Department
4th Floor, PIA Tower, Egerton Road, Lahore.**

April 2017

Executive Summary

1. Punjab Industrial Estates Development and Management Company (PIEDMC) is planning to establish Industrial Zone named Quaid-e-Azam Apparel Park (QAAP) Sheikhupura. The location of QAAP is near M-2 motorway in District Sheikhupura. PIEDMC has already planned two 132 kV substations to meet load demand of QAAP which would be 2x8 MW in the first year and increase to 2x120 MW in year 2023.
2. PIEDMC has requested Planning Power department of NTDC to carry out system studies to propose the power supply scheme to meet the load demand of QAAP.
3. This is draft system study report prepared by Planning Power department of NTDC in which the results of load flow and short circuit studies have been presented for the proposed power supply scheme to QAAP. The scope of services for proposed power supply scheme to QAAP in this study report is limited to 220 kV and 132 kV voltage levels only.
4. In order to prepare this study report, the basic information has been provided by PIEDMC to NTDC which include; location of 132 kV substations of QAAP and their distances from existing substations and the transmission lines QAAP and the yearly load demand of QAAP. A joint site visit of QAAP was also carried out by the officers of NTDC and PIEDMC during the course of this study.
5. The following phase-wise power supply scheme to feed QAAP has been proposed in view of its location & load development plan, the existing & planned transmission network in its vicinity, the availability of right of way and the time lines to construct the interconnection lines and substations:

Phase-1 (2018-19):

- A 220/132/11 kV substation at QAAP-1 with 2x250 MVA, 220/132 kV transformers and one 132/11 kV substation at QAAP-2.
- The 132/11 kV transformers at QAAP-1 and QAAP-2 with 40 MVA rating and the number of transformers be added as per load development plan of QAAP.
- A 220 kV Double Circuit (D/C) transmission line, approx. 3 km long on Rail conductor, for looping in-out of one circuit of the existing 220 kV Bandala New – K.S. Kaku D/C line at QAAP-1 220/132/11 kV substation.
- A 132 kV D/C transmission line, approx. 5.8 km long on Rail conductor, from QAAP-1 to QAAP-2.

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Phase-2 (2020-21):

- Another 220 kV D/C transmission line, approx. 3 km long on Rail conductor, for looping in-out of 2nd circuit of the existing 220 kV Bandala – K.S. Kaku D/C line at QAAP-1 220/132/11 kV substation.

Phase-3 (2022-23):

- 36 MVAR, 132 kV shunt capacitors at QAAP-2 132 kV substation.
6. Load flow studies have been carried out for the selected system scenarios of summer 2019, 2021 and 2023 in order to evaluate the adequacy of the above proposed power supply scheme in the light of NEPRA Grid Code.
 7. Short circuit studies have also been carried out to compute short circuit levels at the 220 kV and 132 kV substations of QAAP. As per study results, short circuit rating of 40 kA for the switchgear equipment at the 220 & 132 kV substations of QAAP have been proposed.
 8. On the basis of the studies, the proposed power supply scheme to meet load demand of QAAP through a 220/132/11 kV substation (QAAP-1) and one 132 kV substation (QAAP-2) has been found adequate and reliable to meet ultimate load demand of $2 \times 120 = 240$ MW under normal and N-1 contingency conditions.
 9. The comments of PIEDMC and PPDB on this report are welcome and would be incorporated in the final report where found necessary.

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Figure 1: Geographical Diagram

Appendices

- Appendix-1: Data Provided by PIEDMC
- Appendix-2: Load Flow Study Exhibits
- Appendix-3: Short Circuit Study Exhibits

1. introduction

Punjab Industrial Estates Development and Management Company (PIEDMC) is planning to establish Industrial Zone named Quaid-e-Azam Apparel Park (QAAP) Sheikhupura. The location of QAAP is near M-2 motorway in District Sheikhupura. PIEDMC has already planned two 132 kV substations to meet load demand of QAAP which would be 2x8 MW in the first year and increase to 2x120 MW in year 2023.

PIEDMC has requested Planning Power department of NTDC to carry out system studies to propose the power supply scheme to meet the load demand of QAAP.

In order to prepare this study report, the basic information has been provided by PIEDMC to NTDC which include; location of 132 kV substations of QAAP and their distances from existing substations and the transmission lines QAAP and the yearly load demand of QAAP. A joint site visit of QAAP was also carried out by the officers of NTDC and PIEDMC during the course of this study

This is a draft system study report in which the results of load flow and short circuit studies have been presented for the proposed power supply scheme to QAAP. The load flow analysis has been carried out for the peak load scenarios of summer 2019, 2021 and 2023 in order to evaluate the adequacy of the proposed power supply scheme in the light of NEPRA Grid Code. Short circuit studies have also been carried out to compute short circuit levels at the 220 kV and 132 kV substations of QAAP and to propose the short circuit rating for the switchgear equipment at the 220 & 132 kV substations of QAAP.

2. Proposed Power Supply Scheme for QAAP

The following phase-wise power supply scheme to feed QAAP has been proposed in view of its location & load development plan, the existing & planned transmission network in its vicinity, the availability of right of way and the time lines to construct the interconnection lines and substations:

Phase-1 (2018-19):

- A 220/132/11 kV substation at QAAP-1 with 2x250 MVA, 220/132 kV transformers and one 132/11 kV substation QAAP-2.
- The 132/11 kV transformers at QAAP-1 and QAAP-2 with 40 MVA rating and the number of transformers be added as per load development plan of QAAP.
- A 220 kV Double Circuit (D/C) transmission line, approx. 3 km long on Rail conductor, for looping in-out of one circuit of the existing 220 kV Bandala New – K.S. Kaku D/C line at QAAP-1 220/132/11 kV substation.
- A 132 kV D/C transmission line, approx. 5.8 km long on Rail conductor, from QAAP-1 to QAAP-2.

Phase-2 in 2020-21:

- Another 220 kV D/C transmission line, approx. 3 km long on Rail conductor, for looping in-out of 2nd circuit of the existing 220 kV Bandala – K.S. Kaku D/C line at QAAP-1 220/132/11 kV substation.

Phase-3 in 2022-23:

- 36 MVAR, 132 kV shunt capacitors at QAAP-2 132 kV substation.

The geographical diagram showing the above proposed power supply scheme for QAAP is shown in Figure # 1.

3. Study Assumptions and Criteria

3.1. Study Assumption

The assumptions for the load flow studies are as under:

- Latest load forecast.
- Latest generation expansion plan.
- Latest transmission expansion plans of NTDC and DISCOs, especially, the expansion plans of LESCO. NTDC is upgrading its network to meet the load demand of northern part of LESCO in the vicinity of QAAP through the addition of 220/132 kV transformer at K.S.Kaku & augmentation of 3x160 MVA, 220/132 kV transformer at Lahore 500 kV substation with 3x250 MVA in year 2017 and a new 500/220/132 kV substation (Lahore North) in 2019.
- The system has been assumed to be operating in an interconnected manner, however split bus arrangement and necessary line openings have been assumed in some parts of the network as per requirements i.e., the split 132 kV bus bar arrangements at Bund Road, Lahore and K.S.K 220/132kV substations.
- The power factor at 132kV substations of QAAP is assumed as 0.9 lagging.
- Load forecast on both 132 kV substations (QAAP-1 & QAAP-2) as provided by PIEDMC has been assumed in the study and is attached in Appendix-1.
- Load power factor of 0.9 lagging at each of 132 kV substations of QAAP-1 and QAAP-2.
- The scope of services is limited to 220 kV and 132 kV voltage levels only at QAAP.

3.2. Study Criteria

The load flow studies have been carried out keeping in view of the following system operating criteria/limits in accordance with Grid Code:

Voltage Limits: $\pm 5\%$ under normal and $\pm 10\%$ under contingency conditions. However, voltages at some generating stations and/or substations at 500 kV & 220 kV may be kept up to $+8\%$ under normal operating conditions as per network configuration and/or system requirements.

Transmission Line Loading Limits: 100% of rating under normal and N-1 contingency conditions.

Transformer Loading Limits: 100% of rating under normal and 110% under N-1 contingency conditions.

4. Load Flow Studies

Load flow studies have been carried out for the peak load scenarios of summer seasons from July to September in years 2019, 2021 and 2023 to assess the adequacy of the proposed power supply scheme to feed Quaid-e-Azam Appareil Park (QAAP) and to analyze its impact on the system networks of LESCO and NTDC.

The results of the load flow studies with proposed power supply scheme for QAAP are described as under:

4.1. Peak Load Summer 2019 Scenario

Load flow studies for peak load scenario of summer 2019 have been carried out with its proposed power supply scheme (Phase-1) and 30 MW load at each of 132 kV substations of QAAP-1 and QAAP-2. The study results of normal operating condition for summer 2019 is attached as Exhibit #1.

As per load flow study, the power flows on the 220 kV & 132 kV transmission lines and 220/132 kV transformers feeding QAAP are given as under:

Transmission Line/Transformer	Power Flow
K.S.Kaku - QAAP-1 220 kV Single Circuit (S/C)	50.6 MW
Bandala - QAAP-1 New 220 kV S/C	9.6 MW
2x250 MVA, 220/132 kV Transformers QAAP-1	60 MW
QAAP-1 – QAAP-2 132 kV D/C line	2x15 MW

As per load flow study, the power flows on the proposed transmission lines and transformers at QAAP as well as the voltage profile at 220 kV & 132 kV substations of QAAP under normal conditions are within prescribed criteria of NEPRA. In general, the study depicts that the system would be operating well within limits, i.e., the line & transformer loadings and voltage profile at the surrounding network are also well within limits and there would be no transmission system constraints in feeding a load of 2x30MW of QAAP through the proposed power supply scheme.

N-1 Contingency Analysis:

The load flow studies have also been carried out for the single line contingency (N-1) analysis on the proposed power supply scheme of QAAP and are attached as Exhibit #2-6. The results of contingency studies have been summarized as under:

Exhibit #	Transmission Line / Transformer Outage	Remarks
2	K.S.Kaku - QAAP-1 220 kV Single Circuit (S/C) out	Power flows on the other transmission lines and transformers as well as the voltage profile of the system remain within limits.
3	Bandala New - QAAP-1 220kV S/C out	-do-
4	Bandala New - K.S.Kaku 220kV S/C out	-do-
5	QAAP-1 - QAAP-2 132 kV S/C out	-do-
6	1x250 MVA, 220/132 kV transformer out at QAAP-1	-do-

4.2. Peak Load Summer 2021 Scenario

Load flow studies for peak load scenario of summer 2021 have been carried out with its proposed power supply scheme (Phase-2) and 74 MW load at each of 132 kV substations of QAAP-1 and QAAP-2. The study results of normal operating condition for summer 2021 is attached as Exhibit #7.

As per load flow study, the power flows on the 220 kV & 132 kV transmission lines and 220/132 kV transformers feeding QAAP are given as under:

Transmission Line/Transformer	Power Flow (MW)
K.S.Kaku - QAAP-1 220 kV D/C line	2x63.2 MW
Bandala New - QAAP-1 220 kV D/C line	2x11 MW
<u>2x250 MVA, 220/132 kV Transformers QAAP-1</u>	148.1 MW
QAAP-1 – QAAP-2 132 kV D/C line	2x7 MW

As per load flow study, the power flows on the proposed transmission lines and transformers at QAAP as well as the voltage profile at 220 kV & 132 kV substations of QAAP under normal conditions are within prescribed criteria of NEPRA. In general, the study depicts that the system would be operating well within limits, i.e., the line & transformer loadings and voltage profile at the surrounding network are also well within limits and there would be no transmission system constraints in feeding a load of 2x74 MW of QAAP through the proposed power supply scheme.

N-1 Contingency Analysis:

The load flow studies have also been carried out for the single line contingency (N-1) analysis on the proposed power supply scheme of QAAP and are attached as Exhibit #8-11. The results of contingency studies have been summarized as under:

Exhibit #	Transmission Line / Transformer Outage	Remarks
8	K.S.Kaku - QAAP-1 220 kV S/C out	Power flows on the other transmission lines and transformers as well as the voltage profile of the system remain within limits.
9	Bandala New - QAAP-1 220kV S/C out	-do-
10	QAAP-1 – QAAP-2 132 kV S/C out	-do-
11	1x250 MVA, 220/132 kV transformer out at QAAP-1	-do-

4.3. Peak Load Summer 2023 Scenario

Load flow studies for peak load scenario of summer 2023 have been carried out with its proposed power supply scheme (Phase-3) and ultimate load of 120 MW load at each of 132 kV substations of QAAP-1 and QAAP-2. The study results of normal operating condition for summer 2023 is attached as Exhibit #12.

As per load flow study, the power flows on the 220 kV & 132 kV transmission lines and 220/132 kV transformers feeding QAAP are given as under:

Transmission Line/Transformer	Power Flow (MW)
K.S.Kaku - QAAP-1 220 kV D/C line	2x114.6 MW
Bandala New - QAAP-1 220 kV D/C line	2x6 MW
2x250 MVA, 220/132 kV Transformers QAAP-1	240.2 MW
QAAP-1 – QAAP-2 132 kV D/C line	2x60.1 MW

As per load flow study, the power flows on the above transmission lines and transformers at QAAP as well as the voltage profile at 220 kV & 132 kV substations of QAAP under normal conditions are within prescribed criteria of NEPRA. In general, the study depicts that the system would be operating well within limits, i.e., the line & transformer loadings and voltage profile at the surrounding network are also well within limits and there would be no transmission system constraints in feeding the ultimate load of 2x120 MW of QAAP through the proposed power supply scheme.

N-1 Contingency Analysis:

The load flow studies have also been carried out for the single line contingency (N-1) analysis on the proposed power supply scheme of QAAP and are attached as Exhibit #13-16. The results of contingency studies have been summarized as under:

Exhibit #	Transmission Line / Transformer Outage	Remarks
13	K.S.Kaku - QAAP-1 220 kV S/C out	Power flows on the other transmission lines and transformers as well as the voltage profile of the system remain within limits.
14	Bandala New - QAAP-1 220kV S/C out	-do-
15	QAAP-1 – QAAP-2 132 kV S/C out	-do-
16	1x250 MVA, 220/132 kV transformer out at QAAP-1	-do-

4.4. Conclusions of Load Flow Analysis

In all the study scenarios, it is found that the power flows on the proposed transmission lines and transformers at QAAP as well as the voltage profile at 220 kV & 132 kV substations of QAAP under normal conditions are within prescribed criteria of NEPRA. Moreover, the studies also reveal that the system would be operating well within limits. i.e., the line & transformer loadings and voltage profile at the surrounding network are also well within limits and there would be no transmission system constraints in feeding the ultimate load of 2x120 MW of QAAP through the proposed power supply scheme for QAAP.

It is important to mention that the load demand at QAAP needs to be developed in line with the COD of the planned 500/220/132 kV substation of Lahore North. In case of delay of Lahore North 500/220/132 kV substation, some load adjustment in the northern part of LESCO may have to be carried out to meet the load demand of QAAP.

5. Short Circuit Studies

Short circuit studies have been carried out to compute three phase and single phase fault levels at 220 kV & 132 kV substations of QAAP which is being fed through the proposed power supply scheme.

5.1. Methodology and Assumptions

The methodology of IEC 909 has been applied in the short circuit analysis in this report for which provision is available in the PSS/E software which is used for these studies.

The maximum fault currents have been calculated with the following assumptions under IEC 909:

- Set tap ratios to unity
- Set line charging to Zero
- Set shunt to zero in positive sequence
- Desired voltage magnitude at bus bars set equal to 1.10 P.U. to compute maximum the short circuit levels.

5.2. Short Circuit Study Results

The short circuit studies have been carried out with proposed power supply scheme for future scenario of 2023 to compute the maximum three phase and single phase short circuit levels at the 220 kV and 132 kV substations of QAAP. The studies have been carried out with all the existing and planned generation in operation and with interconnected transmission system. The analysis of the short circuit studies has been attached as Exhibit #17 and the results are summarized as under:

Name of Faulted Bus Bars	Voltage Level (kV)	Maximum Short Circuit Levels (kA)	
		Three Phase	Single Phase
QAAP-1 (220)	220	23.16	15.02
QAAP-1	132	11.98	10.27
QAAP-2	132	10.43	8.45

Although, the short circuit levels are below 24 kA at 220 kV and 12 kA at 132 kV substations of QAAP in year 2023, however, the short circuit levels of QAAP may rise in future in view of future developments in NTDC and LESCO networks. Therefore, the

short circuit rating of 40 kA for the switchgear equipment at the 220 & 132 kV substations of QAAP have been proposed.

6. Conclusions and Recommendations

- (a) The following phase-wise power supply scheme to feed QAAP has been proposed in view of its location & load development plan, the existing & planned transmission network in its vicinity, the availability of right of way and the time lines to construct the interconnection lines and substations:

Phase-1 (2018-19):

- A 220/132/11 kV substation at QAAP-1 with 2x250 MVA, 220/132 kV transformers and one 132/11 kV substation at QAAP-2.
- The 132/11 kV transformers at QAAP-1 and QAAP-2 with 40 MVA rating and the number of transformers be added as per load development plan of QAAP.
- A 220 kV Double Circuit (D/C) transmission line, approx. 3 km long on Rail conductor, for looping in-out of one circuit of the existing 220 kV Bandala New – K.S. Kaku D/C line at QAAP-1 220/132/11 kV substation.
- A 132 kV D/C transmission line, approx. 5.8 km long on Rail conductor, from QAAP-1 to QAAP-2.

Phase-2 (2020-21):

- Another 220 kV D/C transmission line, approx. 3 km long on Rail conductor, for looping in-out of 2nd circuit of the existing 220 kV Bandala – K.S. Kaku D/C line at QAAP-1 220/132/11 kV substation.

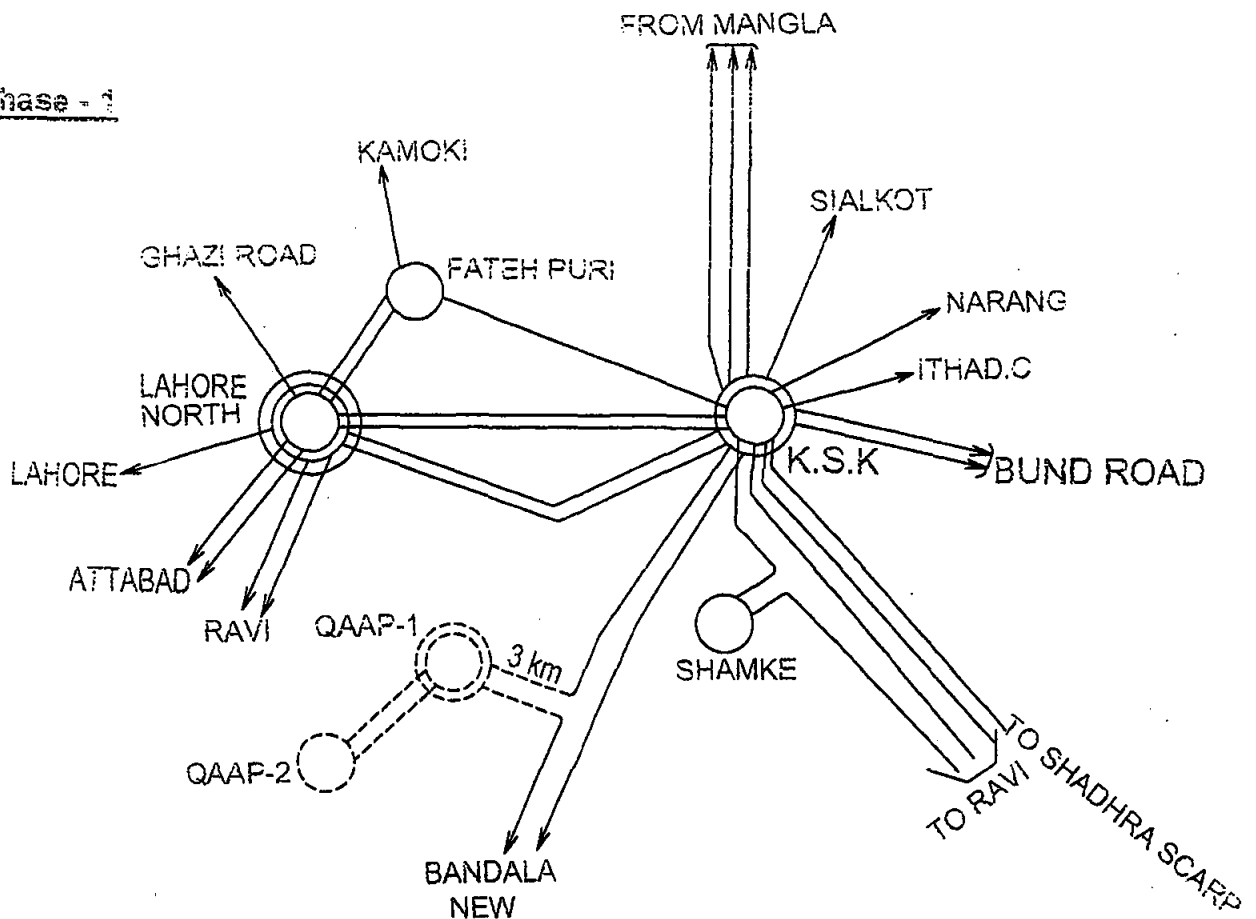
Phase-3 (2022-23):

- 132 kV, 36 MVAR, shunt capacitor at QAAP-2 132 kV substation.

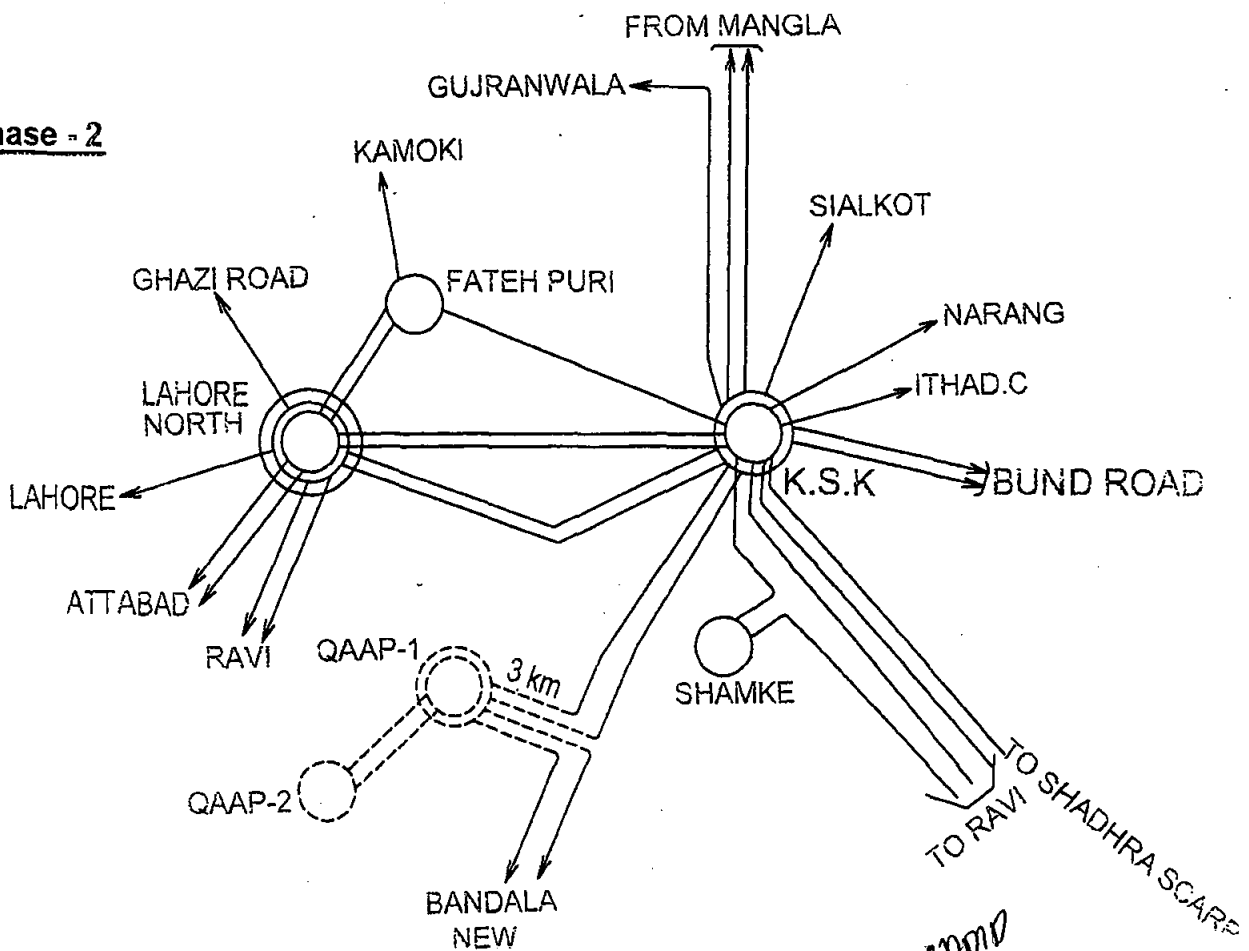
- (b) The above proposed power supply scheme has been found reliable to supply power to meet load demand of QAAP and there will be no overloading and/or any network constraints at/around QAAP under normal and N-1 contingency conditions.
- (c) As per short circuit study results, the short circuit levels are below 24 kA at 220 kV and 12 kA at 132 kV substations of QAAP in year 2023, however, in consideration of future developments in NTDC and LESCO networks in the surrounding of QAAP in long term perspective, the short circuit levels of QAAP are expected to rise. Therefore, the short circuit rating of 40 kA for the switchgear equipment at the 220kV & 132 kV substations of QAAP have been proposed.

Figure# 1: POWER SUPPLY SCHEME FOR QUAID-E-AZAM APPAREL PARK (QAAP)

Phase - 1



Phase - 2

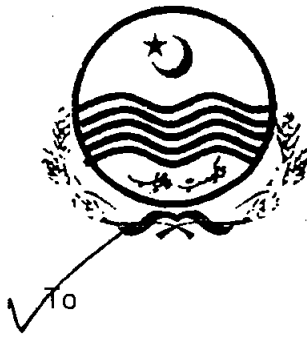


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Appendices

Appendix-1



No. CE (P)/ 239 /DS

OFFICE OF
THE CHIEF ENGINEER (POWER)
ENERGY DEPARTMENT
GOVERNMENT OF THE PUNJAB
1st Floor, Central Design Building,
Irrigation Secretariat, Old Anarkali, Lahore.
(Ph: 042-99212794) (Fax: 042-99212796)

Dated: 10-02- /2017

General Manager (Planning Power) NTDCL
4th Floor, PIA Tower Egerton Road, Lahore.

Subject: **LOAD FLOW STUDY OF 2X120 MW LOAD FOR QUAID-E-AZAM
APPAREL PARK (QAAP) SHEIKHUPURA UNDER M/S PUNJAB
INDUSTRIAL ESTATE DEVELOPMENT & MANAGEMENT
COMPANY (PIEDMC).**

Kindly refer to your letter No. GMPP/CEMP/PRP-376/758-60 dated 09/02/2017 on the subject noted above.

In this regard, it is informed that the requisite information has already been submitted to your good office by Chief Engineer (Dev.) PMU, LESCO vide its letter No. 5645-49/C.E(Dev)/M/(P&S)/532 dated 23/11/2016 (copy enclosed). However the detail of coordinates of the project, and year-wise expected load growth provided by PIEDMC is attached herewith as ready reference. It is added that the charges for Load Flow Study amounting to Rs. 400,000/- (Four Hundred Thousand Only) will be paid by PIEDMC shortly.

It is therefore requested to kindly proceed further to carry out Load Flow Study of the proposed 220KV Grid Station at QAAP Sheikhpura.

DA/as above

Chief Engineer (Power)

C.C:

1. Managing Director, NTDCL, WAPDA House, Lahore.
2. General Manager (Services Division), NTDCL, WAPDA House, Lahore.
3. Chief Engineer (Electrical), PIEDMC Sundar Industrial Estate, Raiwand.

**Load Forecast of Grid Station -1
at QAAP**

COD: July-2018

Sr. No	Year	Projected Load In MW
1	2018	8
2	2019	30
3	2020	52
4	2021	74
5	2022	96
6	2023	120



Chief Engineer Electrical PIEDMC

SAMD

SAMD
CONSULTANTS

**Load Forecast of Grid Station -2
at QAAP**

COD: July -2018

Sr. No	Year	Projected Load In MW
1	2018	8
2	2019	30
3	2020	52
4	2021	74
5	2022	96
6	2023	120


Chief Engineer Electrical PIEDMC

*Attention**YASIN SB.***LAHORE ELECTRIC SUPPLY COMPANY**

Office of Chief Engineer (Development) LESCO
Qartaba Grid Station Bahawalpur Road Lahore.
Ph:042-99214410 FAX 042-99214412

No. 5645-49 /C.E (Dev)/M(P&S) /532.

Dated: 23 /11/2016

To

General Manager (Planning Power) NTDCL
4th Floor, PIA Tower Egerton Road, Lahore.

Sub: Load Flow Study of 2x120MW Load for Quaid-e-Azam Apparel Park (QAAP) Sheikhupura under M/s Punjab Industrial Estate Development & Management Company (PIEDMC).

Ref: [1] Chief Engineer (PIEDMC) Letter No. 2092 dated 11-11-2016 (copy attached).
[2] This Office Letter No. 4783-87 dated 04-11-2016.

It is submitted that PIEDMC is establishing an Industrial Estate named as Quaid-e-Azam Apparel Park (QAAP) in Sheikhupura District at Motorway M-2. To cater the load demand of this Industrial Estate, 02x132/11.5kV Grid Stations were planned with the load of 120MW each. The load flow study was carried out by this office with feeding arrangements from 220/132kV Kala Shah Kaku & 500/220/132kV Sheikhupura Grid Stations. However in a meeting held in LESCO H/Q on 19-10-2016, it was unanimously decided by all stake holders that PIEDMC should construct its own 220/132kV Grid Station, for stable/smooth supply of power & to avoid overloading of NTDCL Grid Stations.

As 220kV system falls under the purview of NTDCL, it is requested to carry out the load flow study for construction of 220/132kV Grid Station for QAAP. The following documents received from PIEDMC, are attached for ready reference:

1. Topographical Map of Site.
2. Location Map Showing space for Grid Stations..
3. Expected COD & Load Forecast.

DA: As Above (06 Pages)

[Signature]
Chief Engineer (Dev.)
PMU LESCO

Info:

1. CEO LESCO, Lahore.
2. Technical Director LESCO, Lahore.
3. Chief Engineer (Electrical) PIEDMC, Commercial Area (North) Sundar Industrial Estate, Raiwind Road Sundar, Lahore.
4. Chief Engineer (Power), Energy Dept, 1st Floor Central Design Building, Irrigation Secretariat, Old Anarkali, Lahore.
- ✓ 5. Master File.

SAMM

5/11/16
CONSULTANTS

32E 33E 34E 35E

E= 412140.15
N= 3510476.13

39E 38E 37E 36E

E= 412126.26
N= 3510454.46

0.99

1.00 1.00 1.00

0.86 0.86 0.86 0.86

E= 412151.71
N= 3510311.92

8E 59E 60E 61E

E= 412116.92
N= 3510306.42

E= 412127.5
N= 3510275.58
RL=208.636

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N= 3510355.51

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162.86

214.28

E= 412171.22
N= 3510300.48

Proposed site for
220/132/11 KV Grid
station

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RL=209.914

MOTORWAY

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N= 3512437.11

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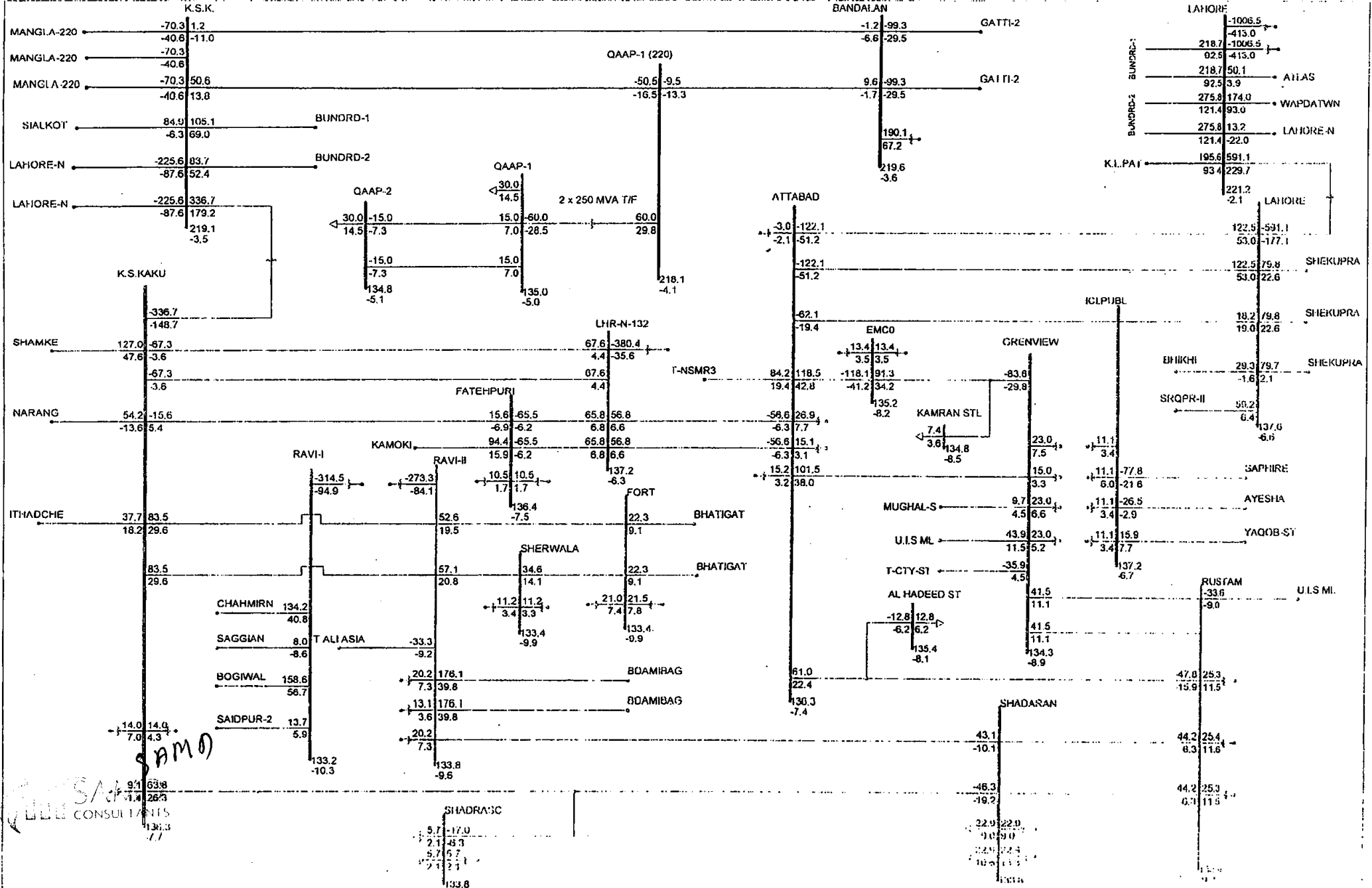
Appendix-2

10-01

POWER SUPPLY ARRANGEMENT FOR QUAID-E-AZAM APPAREL PARK (2 x 30 MW) PEAK LOAD SCENARIO IN SUMMER 2019

NORMAL CONDITION

EXHIBIT #1

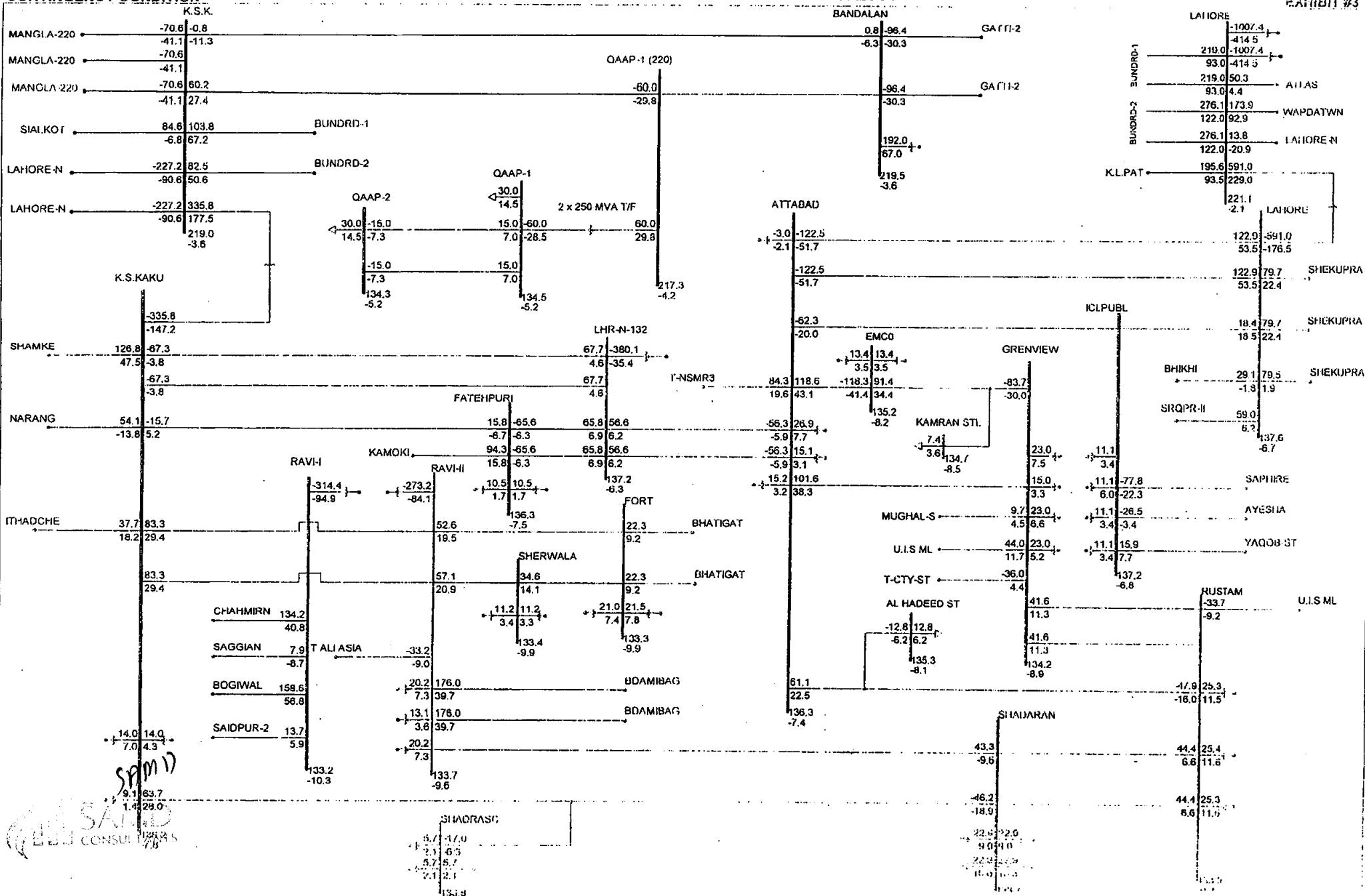


CONTINGENCY CONDITION

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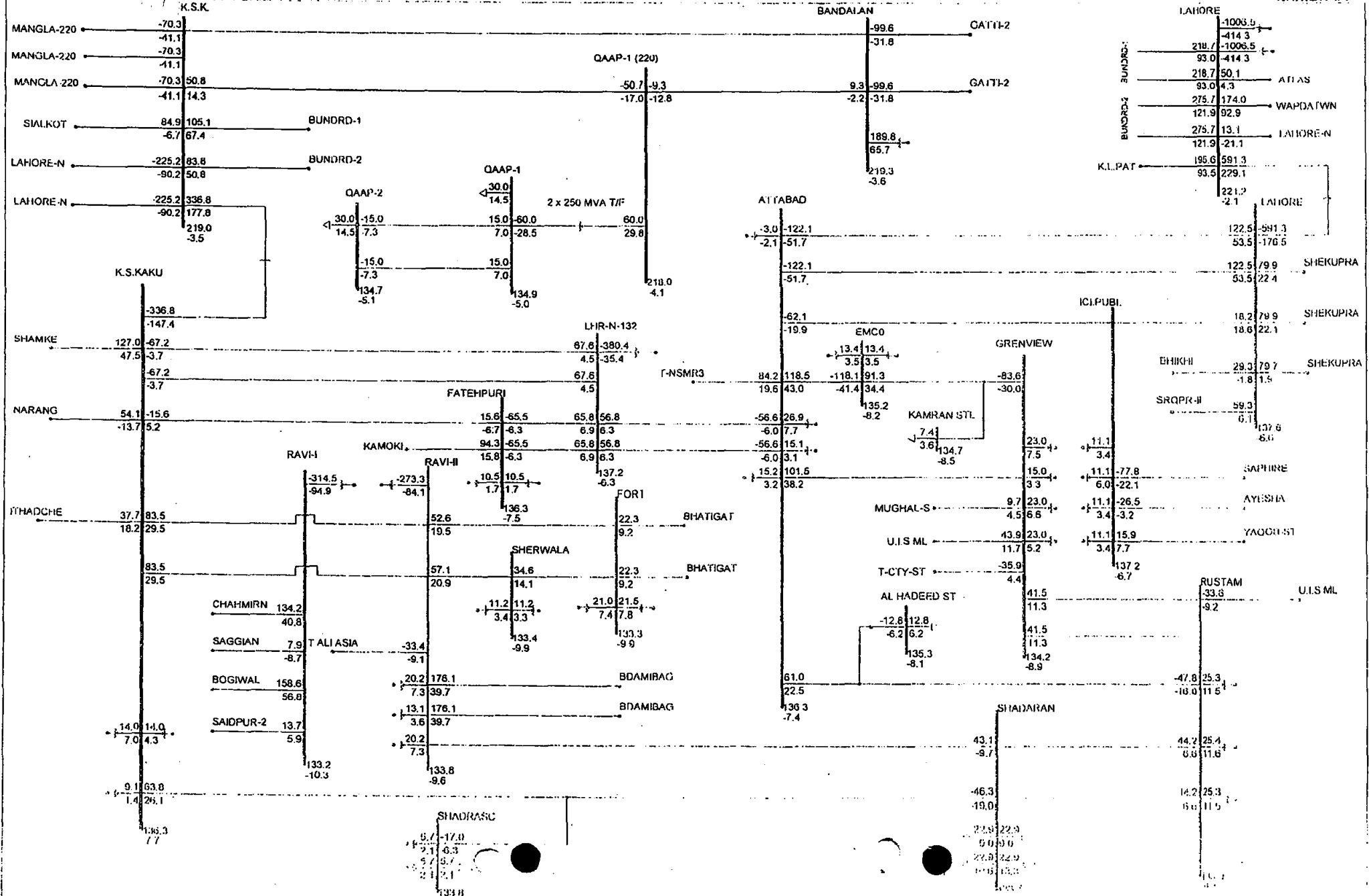
EXHIBIT #3



POWER SUPPLY ARRANGEMENT FOR QUAID-E-AZAM APPAREL PARK (2 x 30 MW) PEAK LOAD SCENARIO IN SUMMER 2019

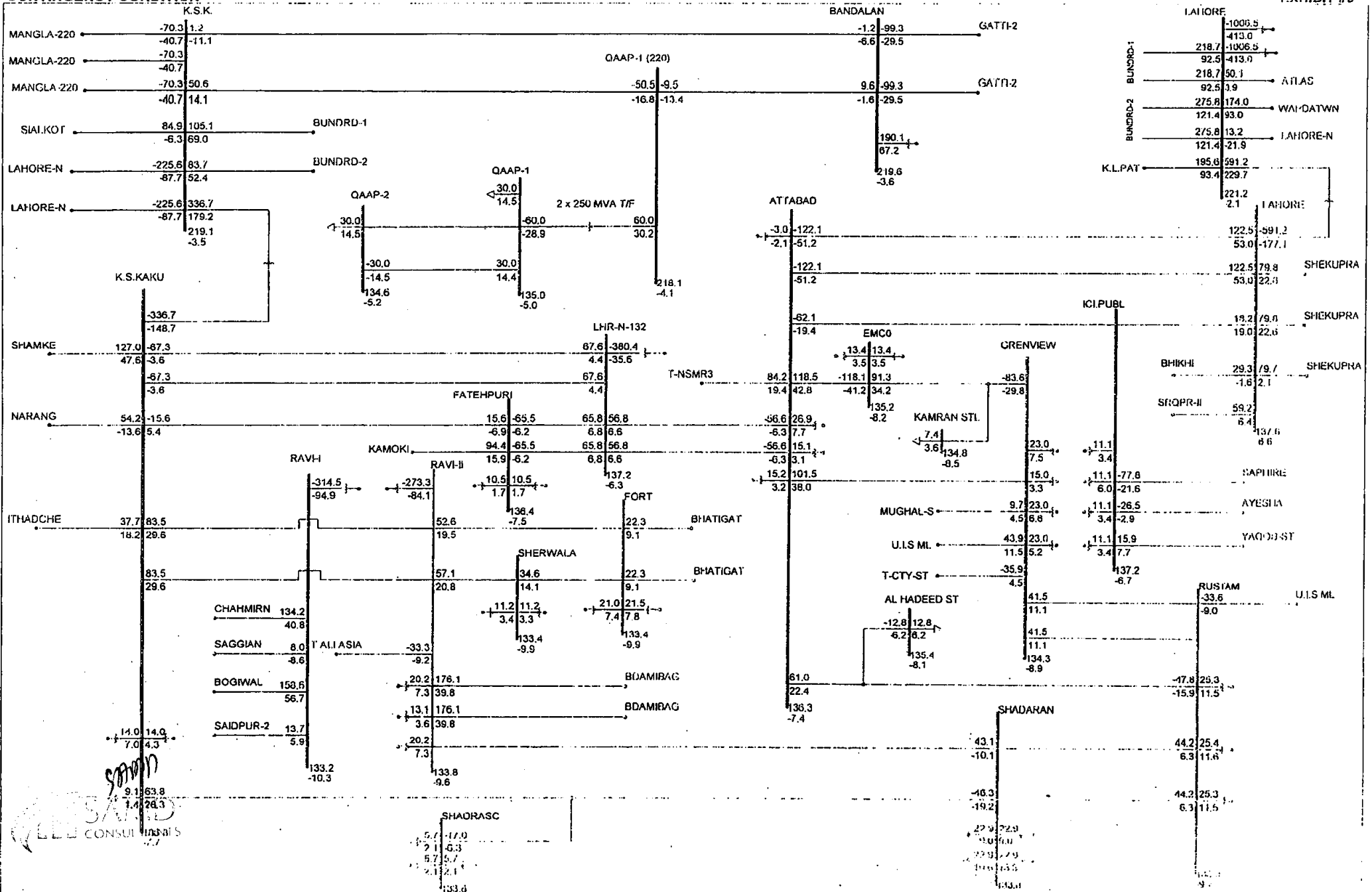
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EXHIBIT #4



CONTINGENCY CONDITION

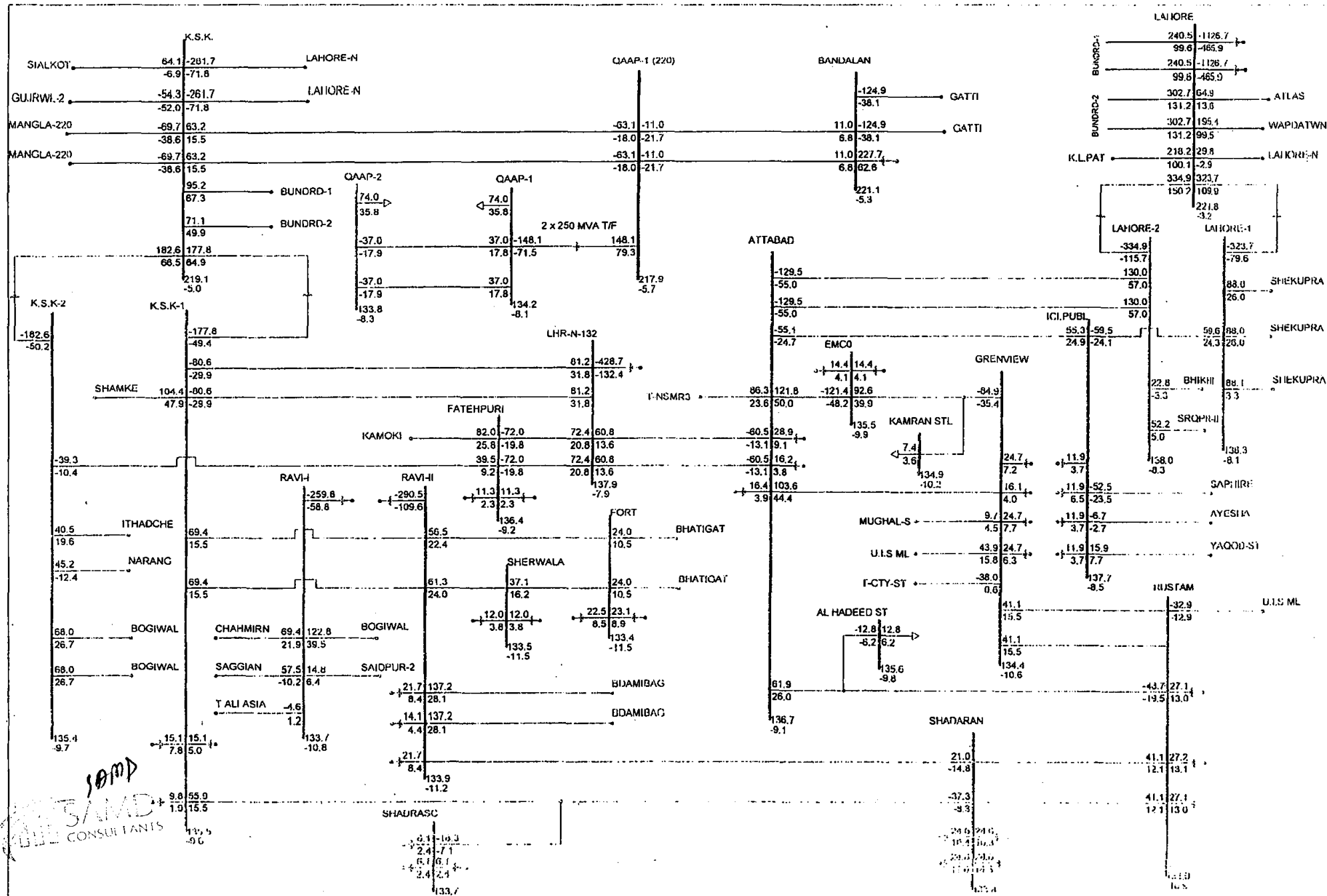
EXHIBIT #5



POWER SUPPLY ARRANGEMENT FOR QUAID-E-AZAM APPAREL PARK (2 x 74 MW) PEAK LOAD SCENARIO IN SUMMER 2021

NORMAL CONDITION

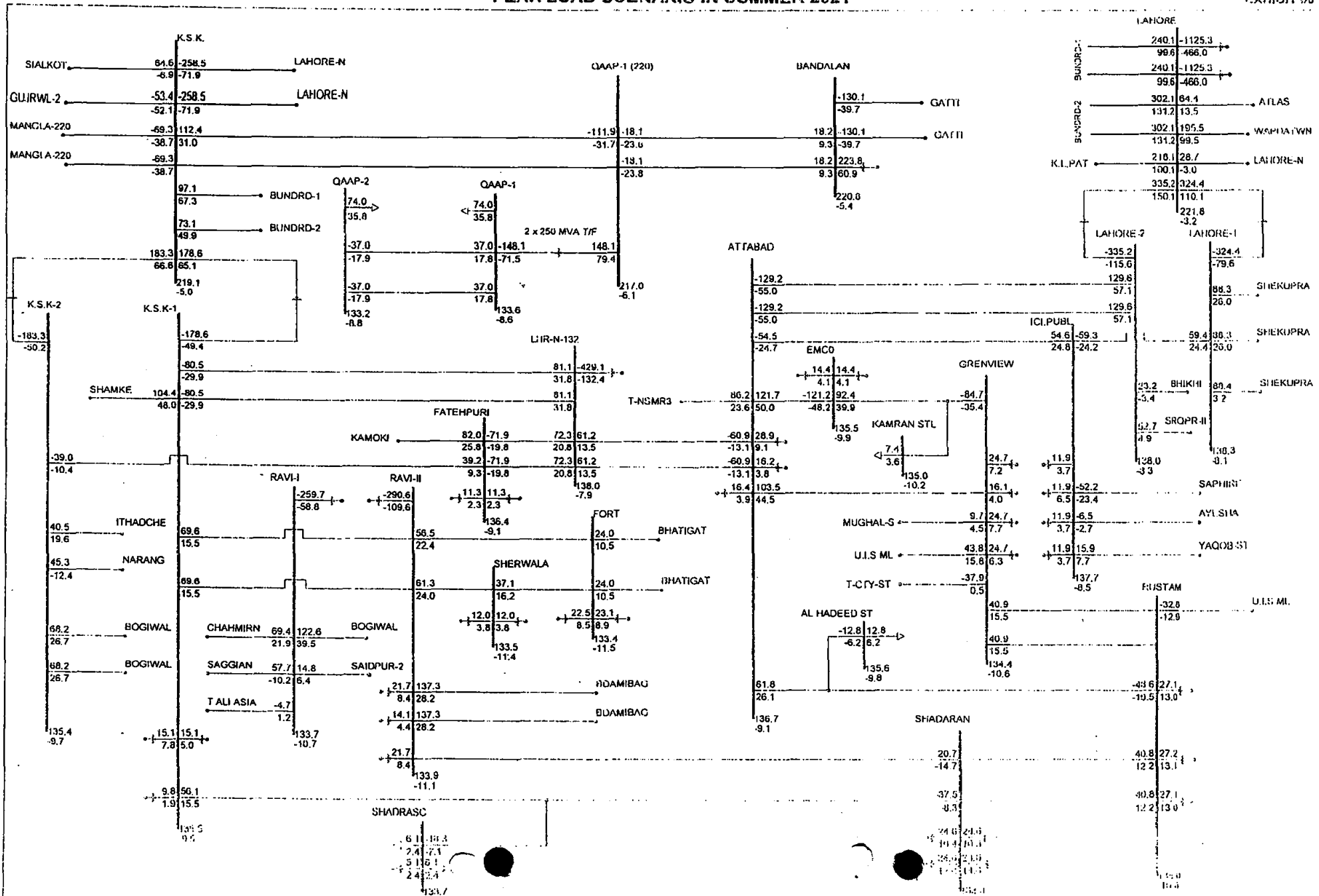
EXHIBIT #7



**POWER SUPPLY ARRANGEMENT FOR
QUAID-E-AZAM APPAREL PARK (2 x 74 MW)
PEAK LOAD SCENARIO IN SUMMER 2021**

EXHIBIT #8

CONTINGENCY CONDITION



CONTINGENCY CONDITION

[illegible]

CONTINGENCY CONDITION

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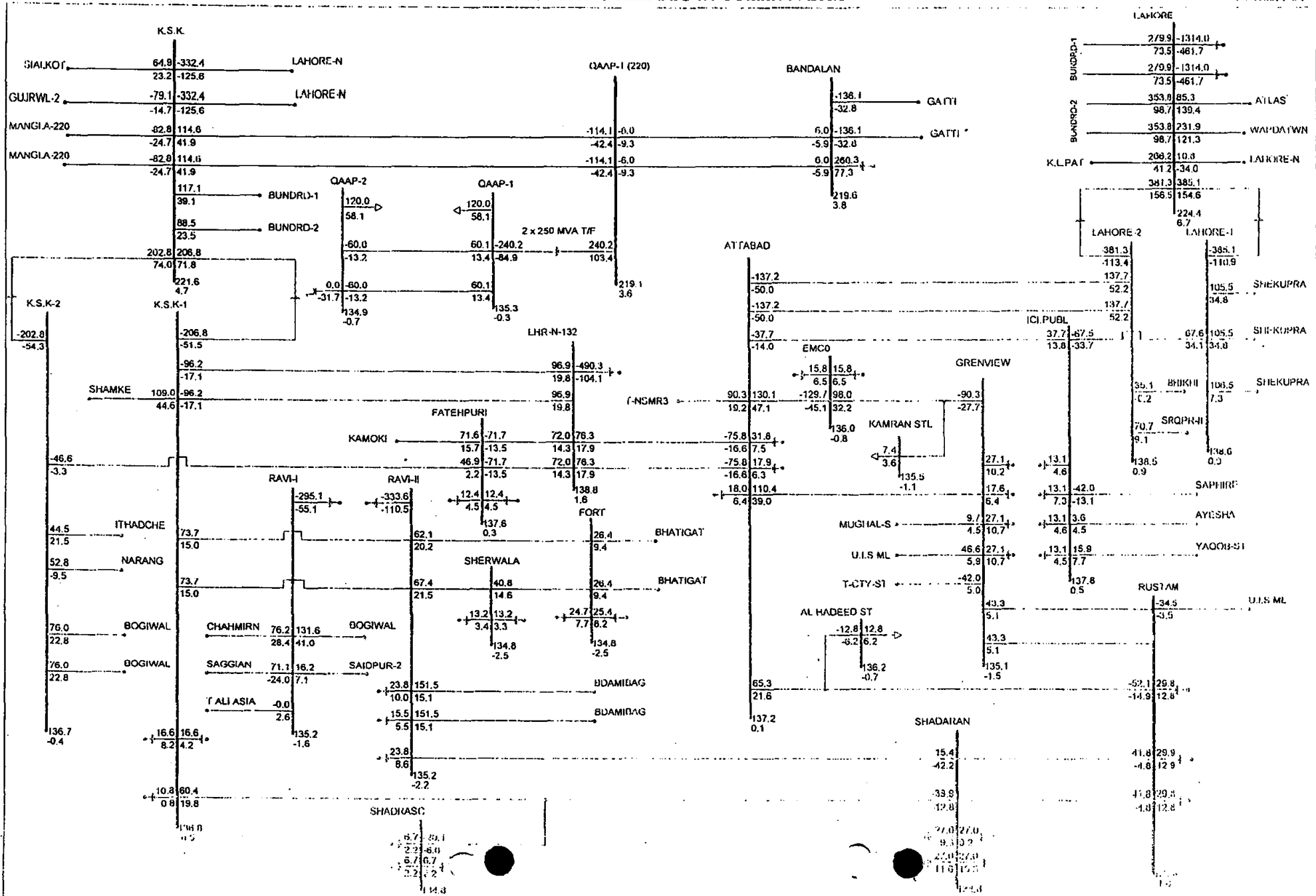
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**POWER SUPPLY ARRANGEMENT FOR
QUAID-E-AZAM APPAREL PARK (2 x 120 M)
PEAK LOAD SCENARIO IN SUMMER 2023**

EXHIBIT #12

NORMAL CONDITION

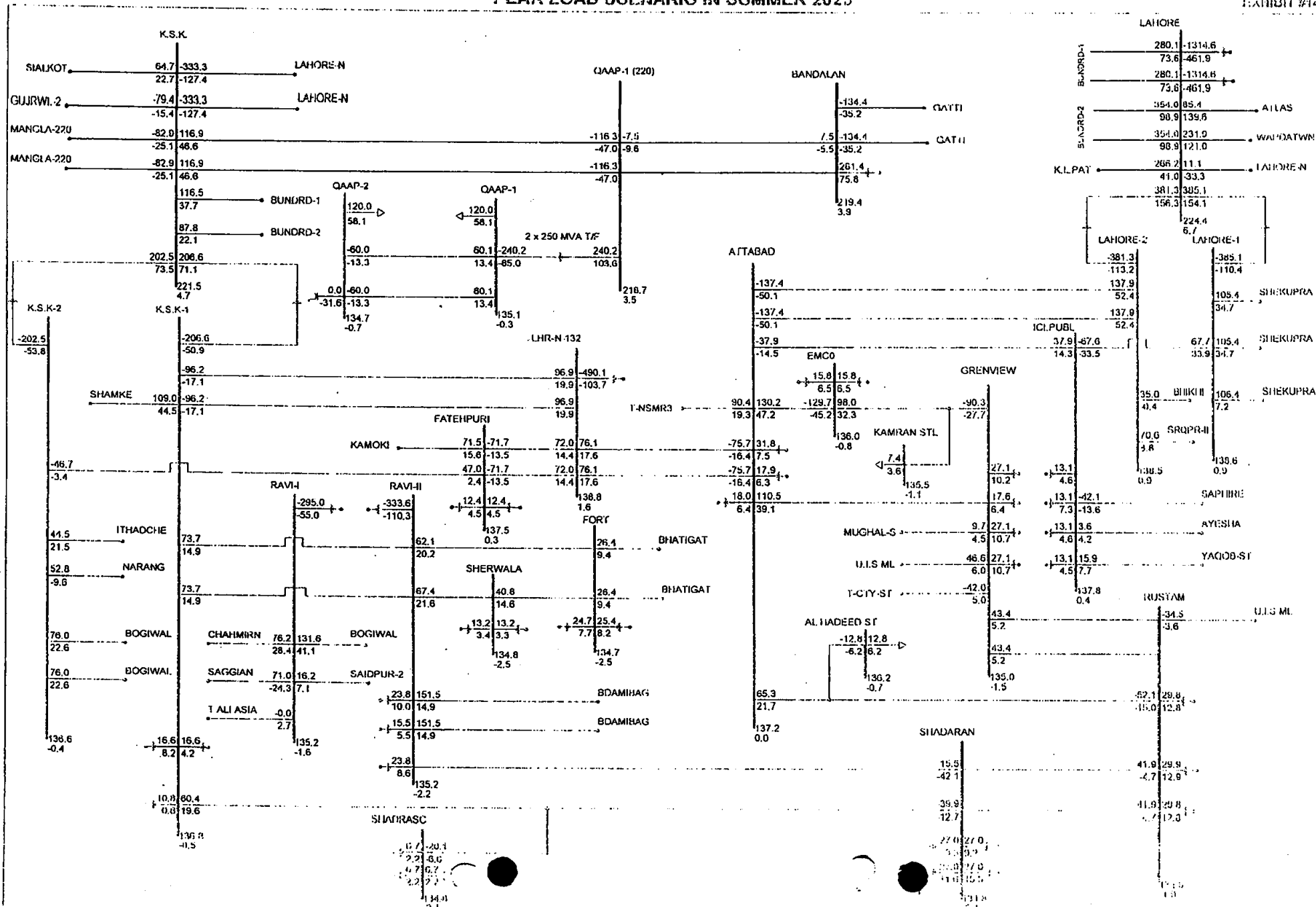


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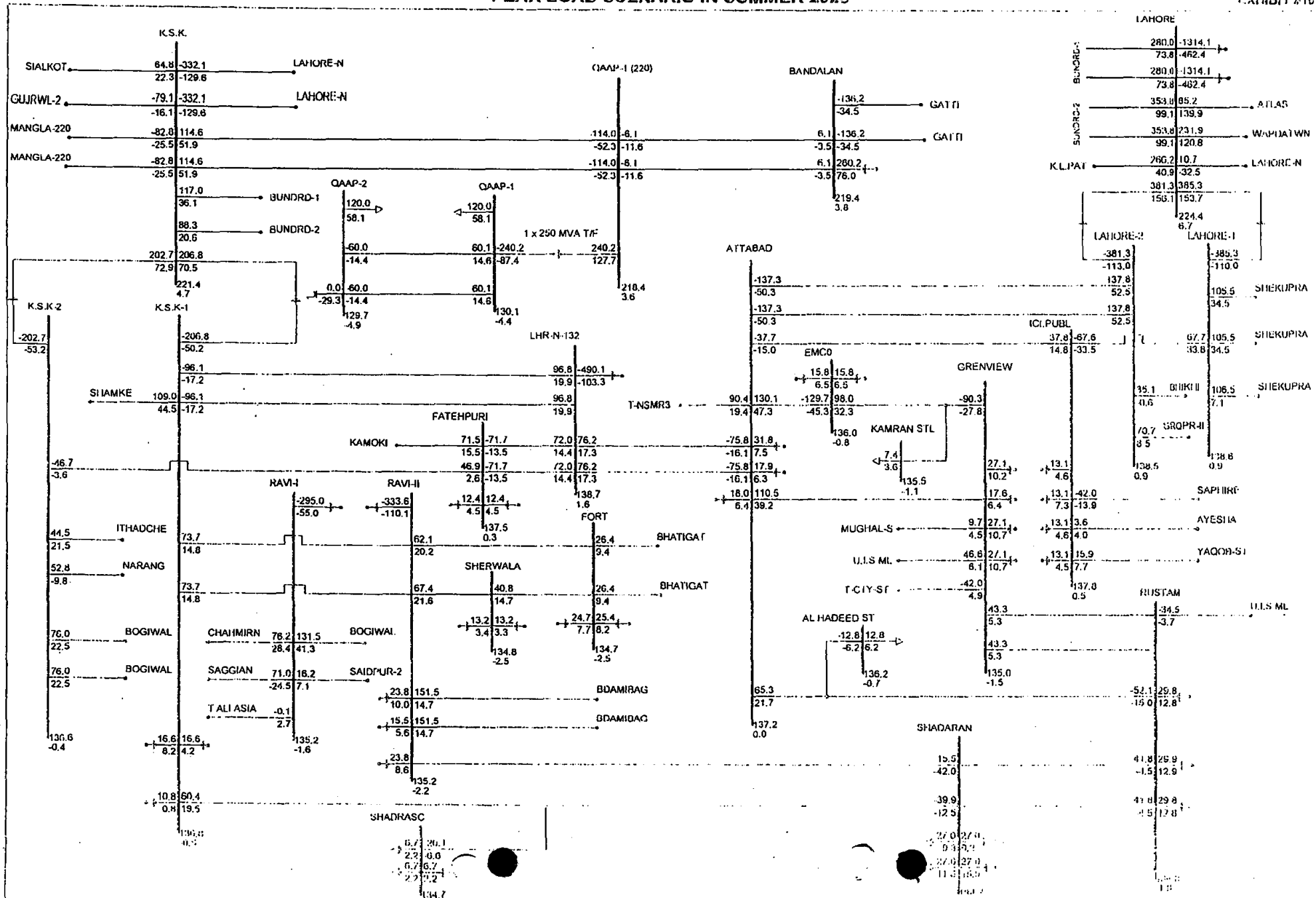
The diagram illustrates the Lahore 220 KV transmission system, showing the following components and connections:

- Substations and Buses:** Sialkot, Lahore-N, Lahore-2, Lahore-1, Sheikupura, Shikupura, K.S.K., K.S.K-2, K.S.K-1, SHAMKE, FATEHPURI, KAMOKI, RAVI-I, RAVI-II, FORT, BHATIGAT, SHERWALA, BOAMIBAG, BOAMIBAG, SHADIRASC, SHADARAN, RUSTAM, AYESHA, SAPHIRE, SRQPR II, DHIKII, SHEKUPRA, LAHORE-2, LAHORE-1, ICLPUBL, EMC0, GREVIEW, KAMRAN STL, MUGHAL-S, U.I.S. ML, T-CTY-ST, AL. HADEED ST, SHADIRASC, SHADARAN, RUSTAM, AYESHA, SAPHIRE, SRQPR II, DHIKII, SHEKUPRA, LAHORE-2, LAHORE-1, ICLPUBL, EMC0, GREVIEW, KAMRAN STL, MUGHAL-S, U.I.S. ML, T-CTY-ST, AL. HADEED ST.
- Transmission Lines:** Sialkot-Lahore-N, Lahore-N-Lahore-2, Lahore-2-Lahore-1, Lahore-1-Sheikupura, Sheikupura-Shikupura, K.S.K.-Lahore-N, K.S.K.-Lahore-2, K.S.K.-Lahore-1, K.S.K.-Sheikupura, K.S.K.-Shikupura, SHAMKE-Lahore-N, SHAMKE-Lahore-2, SHAMKE-Lahore-1, SHAMKE-Sheikupura, SHAMKE-Shikupura, FATEHPURI-Lahore-N, FATEHPURI-Lahore-2, FATEHPURI-Lahore-1, FATEHPURI-Sheikupura, FATEHPURI-Shikupura, KAMOKI-Lahore-N, KAMOKI-Lahore-2, KAMOKI-Lahore-1, KAMOKI-Sheikupura, KAMOKI-Shikupura, RAVI-I-Lahore-N, RAVI-I-Lahore-2, RAVI-I-Lahore-1, RAVI-I-Sheikupura, RAVI-I-Shikupura, RAVI-II-Lahore-N, RAVI-II-Lahore-2, RAVI-II-Lahore-1, RAVI-II-Sheikupura, RAVI-II-Shikupura, FORT-Lahore-N, FORT-Lahore-2, FORT-Lahore-1, FORT-Sheikupura, FORT-Shikupura, BHATIGAT-Lahore-N, BHATIGAT-Lahore-2, BHATIGAT-Lahore-1, BHATIGAT-Sheikupura, BHATIGAT-Shikupura, SHERWALA-Lahore-N, SHERWALA-Lahore-2, SHERWALA-Lahore-1, SHERWALA-Sheikupura, SHERWALA-Shikupura, BOAMIBAG-Lahore-N, BOAMIBAG-Lahore-2, BOAMIBAG-Lahore-1, BOAMIBAG-Sheikupura, BOAMIBAG-Shikupura, SHADIRASC-Lahore-N, SHADIRASC-Lahore-2, SHADIRASC-Lahore-1, SHADIRASC-Sheikupura, SHADIRASC-Shikupura, SHADARAN-Lahore-N, SHADARAN-Lahore-2, SHADARAN-Lahore-1, SHADARAN-Sheikupura, SHADARAN-Shikupura, RUSTAM-Lahore-N, RUSTAM-Lahore-2, RUSTAM-Lahore-1, RUSTAM-Sheikupura, RUSTAM-Shikupura, AYESHA-Lahore-N, AYESHA-Lahore-2, AYESHA-Lahore-1, AYESHA-Sheikupura, AYESHA-Shikupura, SAPHIRE-Lahore-N, SAPHIRE-Lahore-2, SAPHIRE-Lahore-1, SAPHIRE-Sheikupura, SAPHIRE-Shikupura, SRQPR II-Lahore-N, SRQPR II-Lahore-2, SRQPR II-Lahore-1, SRQPR II-Sheikupura, SRQPR II-Shikupura, DHIKII-Lahore-N, DHIKII-Lahore-2, DHIKII-Lahore-1, DHIKII-Sheikupura, DHIKII-Shikupura, SHEKUPRA-Lahore-N, SHEKUPRA-Lahore-2, SHEKUPRA-Lahore-1, SHEKUPRA-Sheikupura, SHEKUPRA-Shikupura, LAHORE-2-Lahore-1, LAHORE-2-Sheikupura, LAHORE-2-Shikupura, LAHORE-1-Lahore-2, LAHORE-1-Sheikupura, LAHORE-1-Shikupura, ICLPUBL-Lahore-N, ICLPUBL-Lahore-2, ICLPUBL-Lahore-1, ICLPUBL-Sheikupura, ICLPUBL-Shikupura, EMC0-Lahore-N, EMC0-Lahore-2, EMC0-Lahore-1, EMC0-Sheikupura, EMC0-Shikupura, GREVIEW-Lahore-N, GREVIEW-Lahore-2, GREVIEW-Lahore-1, GREVIEW-Sheikupura, GREVIEW-Shikupura, KAMRAN STL-Lahore-N, KAMRAN STL-Lahore-2, KAMRAN STL-Lahore-1, KAMRAN STL-Sheikupura, KAMRAN STL-Shikupura, MUGHAL-S-Lahore-N, MUGHAL-S-Lahore-2, MUGHAL-S-Lahore-1, MUGHAL-S-Sheikupura, MUGHAL-S-Shikupura, U.I.S. ML-Lahore-N, U.I.S. ML-Lahore-2, U.I.S. ML-Lahore-1, U.I.S. ML-Sheikupura, U.I.S. ML-Shikupura, T-CTY-ST-Lahore-N, T-CTY-ST-Lahore-2, T-CTY-ST-Lahore-1, T-CTY-ST-Sheikupura, T-CTY-ST-Shikupura, AL. HADEED ST-Lahore-N, AL. HADEED ST-Lahore-2, AL. HADEED ST-Lahore-1, AL. HADEED ST-Sheikupura, AL. HADEED ST-Shikupura.
- Legend:**
 - 220 KV Line
 - 132 KV Line
 - 66 KV Line
 - 33 KV Line
 - 11 KV Line
 - 0.69 KV Line
 - 0.48 KV Line
 - 0.38 KV Line
 - 0.28 KV Line
 - 0.18 KV Line
 - 0.08 KV Line
 - 0.04 KV Line
 - 0.02 KV Line
 - 0.01 KV Line
 - 0.005 KV Line
 - 0.002 KV Line
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 - 0.000000000000000000000000005 KV Line
 - 0.000000000000000000000000002 KV Line
 - 0.000000000000000000000000001 KV Line
 - 0.0000000000000000000000000005 KV Line
 - 0.0000000000000000000000000002 KV Line
 - 0.000000000000

**POWER SUPPLY ARRANGEMENT FOR
QUAID-E-AZAM APPAREL PARK (2 x 120 MW)
PEAK LOAD SCENARIO IN SUMMER 2023**

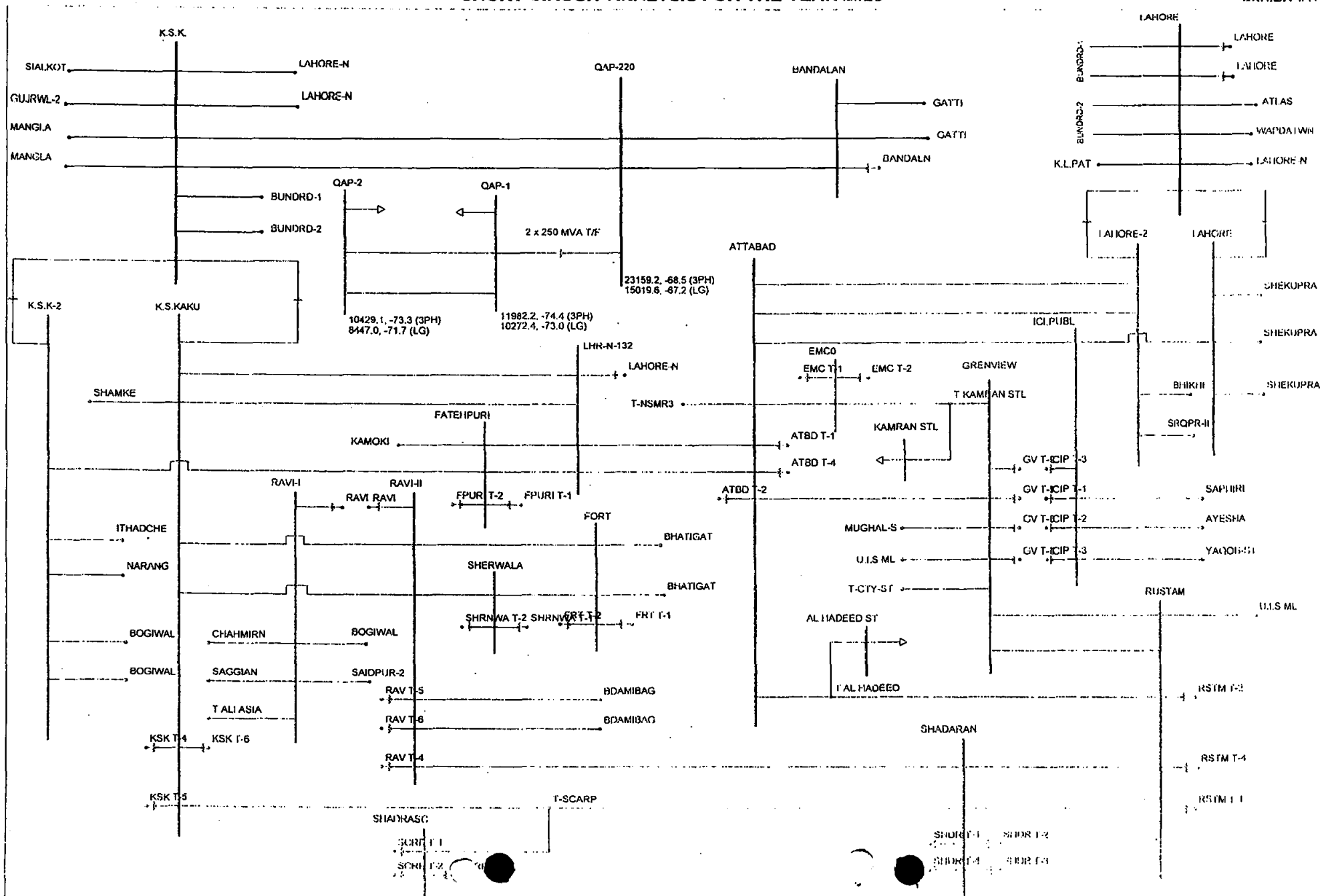
CONTINGENCY CONDITION

EXHIBIT 210



Appendix-3

EXHIBIT #17



PSS(R)E-32.2.1 ASCC SHORT CIRCUIT CURRENTS

MON, APR 10 2017 15:26

POWER SUPPLY SCHEME FOR QUAID-E-AZAM APPAREL PARK (QAAP)

SHORT CIRCUIT ANALYSIS FOR THE YEAR 2023

AT BUS 249 [QAAP-220 220.00] AREA 15 *** FAULTED BUS IS: 249 [QAAP-220 220.00] *** 0 LEVELS AWAY ***

(KV L-G) V+:/0.000/0.00 VA:/0.000/0.00 VB:/0.000/0.00 VC:/0.000/0.00

THEVENIN IMPEDANCE, X/R (PU) Z+:/0.013459/81.484, 6.67874

THEVENIN IMPEDANCE, X/R (OHM) Z+:/6.514/81.484, 6.67874

X-----

THREE PHASE FAULT

-----X

X-----	FROM	-----X	AREA	CKT	I/Z	/I+/-	AN(I+/-)	/I-/	AN(I-)	/I0/	AN(I0)	/I10/	AN(I10)	/Z+/-	AN(Z+/-)	APP X/R
250	[K.S.K.	220.00]	15	1	AMP/OHM	9240.6	-68.68	9240.6	-68.68	9240.6	171.32	9240.6	51.32	9.11	79.31	5.298
250	[K.S.K.	220.00]	15	2	AMP/OHM	9240.6	-68.68	9240.6	-68.68	9240.6	171.32	9240.6	51.32	9.11	79.31	5.298
365	[BANDALAN	220.00]	15	1	AMP/OHM	2339.2	-67.83	2339.2	-67.83	2339.2	172.17	2339.2	52.17	42.36	79.30	5.292
365	[BANDALAN	220.00]	15	2	AMP/OHM	2339.2	-67.83	2339.2	-67.83	2339.2	172.17	2339.2	52.17	42.36	79.30	5.292
4996	[QAAP-1	132.00]	4	1	AMP/OHM	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.00	0.00	0.000
INITIAL SYM. S.C. CURRENT(I''k) (RMS) AMP						23159.2	-68.51	23159.2	-68.51	23159.2	171.49	23159.2	51.49			

AT BUS 249 [QAAP-220 220.00] AREA 15 *** FAULTED BUS IS: 249 [QAAP-220 220.00] *** 0 LEVELS AWAY ***

(KV L-G) V+:/118.263/12.62 V-:/32.629/-165.71 V0:/85.653/-168.02 VA:/0.000/0.00 VB:/181.646/-122.03 VC:/184.840/147.00

THEVENIN IMPEDANCE, X/R (PU) Z+:/0.013459/81.484, 6.67874 Z-:/0.013466/81.489, 6.68215 Z0:/0.035348/79.179, 5.23168

THEVENIN IMPEDANCE, X/R (OHM) Z+:/6.514/81.484, 6.67874 Z-:/6.517/81.489, 6.68215 Z0:/17.108/79.179, 5.23168

X-----

LINE TO GROUND (LG) FAULT

-----X

X-----	FROM	-----X	AREA	CKT	I/Z	/I+/-	AN(I+/-)	/I-/	AN(I-)	/I0/	AN(I0)	/I10/	AN(I10)	/Z+/-	AN(Z+/-)	APP X/R
250	[K.S.K.	220.00]	15	1	AMP/OHM	2003.5	-67.26	1996.1	-67.40	2021.3	-67.25	6064.0	-67.25	14.55	-99.90	5.724
250	[K.S.K.	220.00]	15	2	AMP/OHM	2003.5	-67.26	1996.1	-67.40	2021.3	-67.25	6064.0	-67.25	14.55	-99.90	5.724
365	[BANDALAN	220.00]	15	1	AMP/OHM	499.8	-66.96	507.2	-66.41	481.9	-67.01	1445.8	-67.01	48.28	-100.31	5.498
365	[BANDALAN	220.00]	15	2	AMP/OHM	499.8	-66.96	507.2	-66.41	481.9	-67.01	1445.8	-67.01	48.28	-100.31	5.498
4996	[QAAP-1	132.00]	4	1	AMP/OHM	0.0	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.00	0.00	0.000
INITIAL SYM. S.C. CURRENT(I''k) (RMS) AMP						5006.5	-67.20	5006.5	-67.20	5006.5	-67.20	15019.6	-67.20			

X-----	FROM	-----X	AREA	CKT	I/Z	/IA/	AN(IA)	/IB/	AN(IB)	/IC/	AN(IC)	/ZA/	AN(ZA)	APP X/R
250	[K.S.K.	220.00]	15	1	AMP/OHM	6020.9	-67.30	26.0	-74.88	19.7	-38.70	15.39	79.00	5.147
250	[K.S.K.	220.00]	15	2	AMP/OHM	6020.9	-67.30	26.0	-74.88	19.7	-38.70	15.39	79.00	5.147
365	[BANDATAN	220.00]	15	1	AMP/OHM	1488.9	-66.79	26.0	105.12	19.7	141.30	70.55	78.87	5.083
365	[BANDALAN	220.00]	15	2	AMP/OHM	1488.9	-66.79	26.0	105.12	19.7	141.30	70.55	78.87	5.083
4996	[QAAP-1	132.00]	4	1	AMP/OHM	0.0	0.00	0.0	0.00	0.0	0.00	0.00	0.00	0.000
INITIAL SYM. S.C. CURRENT(I''k) (RMS) AMP						15019.6	-67.20	0.0	0.00	0.0	0.00			

AT BUS 4996 [QAAP-1 132.00] AREA 4 *** FAULTED BUS IS: 4996 [QAAP-1 132.00] *** 0 LEVELS AWAY ***

(KV L-G) V+:/0.000/0.00 V-:/0.000/0.00 VB:/0.000/0.00 VC:/0.000/0.00

THEVENIN IMPEDANCE, X/R (PU) Z+:/0.043357/87.365, 21.73127

THEVENIN IMPEDANCE, X/R (OHM) Z+:/7.554/87.365, 21.73127

X-----THREE PHASE FAULT-----X

X-----	FROM	-----X	AREA	CKT	I/Z	/I+/ AN(I+)	/IA/ AN(IA)	/IB/ AN(IB)	/IC/ AN(IC)	/Z+/ AN(Z+)	APP X/R
249	[QAAP-220	220.00]	15	1	AMP/OHM	11982.2 -74.39	11982.2 -74.39	11982.2 165.61	11982.2 45.61	14.52	90.00 9999.999
4997	[QAAP-2	132.00]	4	1	AMP/OHM	0.0 0.00	0.0 0.00	0.0 0.00	0.0 0.00	0.00	0.00 0.000
4997	[QAAP-2	132.00]	4	2	AMP/OHM	0.0 0.00	0.0 0.00	0.0 0.00	0.0 0.00	0.00	0.00 0.000
INITIAL SYM. S.C. CURRENT(I''k) (RMS) AMP						11982.2 -74.39	11982.2 -74.39	11982.2 165.61	11982.2 45.61		

AT BUS 4996 [QAAP-1 132.00] AREA 4 *** FAULTED BUS IS: 4996 [QAAP-1 132.00] *** 0 LEVELS AWAY ***

(KV L-G) V+:/64.662/12.43 V-:/25.871/-165.64 V0:/38.815/-168.86 VA:/0.000/0.00 VB:/96.138/-114.27 VC:/99.141/138.92

THEVENIN IMPEDANCE, X/R (PU) Z+:/0.043357/87.365, 21.73127 Z-:/0.043363/87.366, 21.73520 Z0:/0.065058/84.145, 9.75227

THEVENIN IMPEDANCE, X/R (OHM) Z+:/7.554/87.365, 21.73127 Z-:/7.556/87.366, 21.73520 Z0:/11.336/84.145, 9.75227

X-----LINE TO GROUND (LG) FAULT-----X

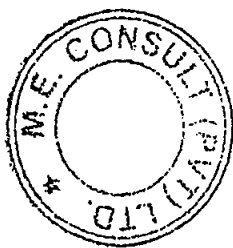
X-----	FROM	-----X	AREA	CKT	I/Z	/I+/ AN(I+)	/I-/ AN(I-)	/I0/ AN(I0)	/I10/ AN(I10)	/Z+/ AN(Z+)	APP X/R
249	[QAAP-220	220.00]	15	1	AMP/OHM	3424.1 -73.01	3424.1 -73.01	3424.1 -73.01	10272.4 -73.01	17.11	-100.82 5.232
4997	[QAAP-2	132.00]	4	1	AMP/OHM	0.0 0.00	0.0 0.00	0.0 0.00	0.0 0.00	0.00	0.00 0.000
4997	[QAAP-2	132.00]	4	2	AMP/OHM	0.0 0.00	0.0 0.00	0.0 0.00	0.0 0.00	0.00	0.00 0.000
INITIAL SYM. S.C. CURRENT(I''k) (RMS) AMP						3424.1 -73.01	3424.1 -73.01	3424.1 -73.01	10272.4 -73.01		

X-----	FROM	-----X	AREA	CKT	I/Z	/IA/ AN(IA)	/IB/ AN(IB)	/IC/ AN(IC)	/ZA/ AN(ZA)	APP X/R
249	[QAAP-220	220.00]	15	1	AMP/OHM	10272.4 -73.01	0.0 0.00	0.0 0.00	14.52	90.00 9999.999
4997	[QAAP-2	132.00]	4	1	AMP/OHM	0.0 0.00	0.0 0.00	0.0 0.00	0.00	0.00 0.000
4997	[QAAP-2	132.00]	4	2	AMP/OHM	0.0 0.00	0.0 0.00	0.0 0.00	0.00	0.00 0.000
INITIAL SYM. S.C. CURRENT(I''k) (RMS) AMP						10272.4 -73.01	0.0 0.00	0.0 0.00		

PUNJAB INDUSTRIAL ESTATES DEVELOPMENT
& MANAGEMENT COMPANY

RE-DESIGN
FOR
UNDERGROUND EXTERNAL
ELECTRIFICATION SYSTEM WITH
MERGED PLOTS
AT
QUAID-E-AZAM BUSINESS PARK
(QABP)
SHIEKHUPURA

(September, 2022)



Consultant.

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Client.

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Ysmn
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- Project Description

A

- Introduction
- Electrical Design Features

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PROJECT DESCRIPTION

INTRODUCTION:

PIE (Punjab Industrial Estate) is developing an Industrial Estate "Quaid-e-Azam Business Park (QABP)" at District Sheikhupura which is spread over 1500 acres of land. The Industrial Park comprises of Industrial Plots of various sizes i.e. ½ Acre, 1Acre, 2Acre, 3Acre, 4Acre, 5Acre, 6Acre & Commercial Plots, Mosque, Expo Center, Hospital, Parks Water Supply & Petrol pump.

The original design of QABP prepared by NESPAK had an Electrical Estimated Load of 123 MW with 29 # Outgoing 11KV Feeders for Grid 1 and Load of 121.2MW with 26 # Outgoing 11KV Feeders for Grid 2 other than Stand By and Express Feeders.

However, the Revised Design Incorporates a Load of 132.7 MW with 19 # Outgoing 11KV Feeders & 16 # Independent 11KV Feeders and 3 # Consumer Grids having a combined load of 56MW for Grid 1 and Grid 2 shall have a Load of 124.4MW with 20 # Outgoing 11KV Feeders and 12 # Independent 11KV Feeders. The Express and Stand By feeders are the same as per original design.

ELECTRICAL DESIGN FEATURES.

ME Consult was given the assignment of the revised design incorporating the merged plots in accordance with the loads provided by the individual consumers.

The redesign work has been carried out considering the basic design concept of NESPAK with the same load criteria except where, the merged plot owners provided the ultimate load of their industry.

However, for the few merged / sold plots where the owners did not provide their load, the design has been done on the basis of the load criteria of NESPAK.

All other parameters i.e. Express feeders and Stand By Feeders have been incorporated in the design.

The load of the merged plots defined by the owners exceed the 11KV connection as per NEPRA Consumer service Manual (CSM) i.e. exceeding 10MW for 3# Consumers and hence have been considered as Electric Power connection on a 132KV System. As regards the 3# Consumer grids exceeding 10MW, a tentative ROW for lay of 132KV Cable has been marked as an open ring system as discussed with PIEDMC, to be fed from the 132KV Bus bar of Grid Station # 1 only as the design of the same is not the part of ME consult under scope of their work order.

The salient features of the design are as under:

- The design has been prepared for whole of the system as **Underground** except the major fixtures/equipment such as Pad Mounted Transformers (KIOSKS), H.T Ring main Switches, Street Light Poles and Switches.
- The H.T System consists of total 31 (Thirty One) Nos. 11 KV outgoing feeders proposed from the 132/11KV Grid Station 1 and 27 (Twenty Seven) Nos. 11 KV outgoing feeders proposed from the 132/11KV Grid Station 2 in QABP, Sheikhpura. Detail of feeders is as under:

Grid Station	Main 11KV Feeders	Independent 11KV Feeders	11 KV Stand By Feeders + Express Feeders
Grid 1	19 Nos.	16 Nos.	4+2 Nos.
Grid 2	20 Nos.	12 Nos.	4+2 Nos.
Total.	39 Nos.	28 Nos.	8+4 Nos.

- 39 (Thirty Nine) Nos. 11 KV Main feeders and 28 (Twenty Eight) Nos. Independent 11KV Feeders are proposed for feeding whole area and 8+4 (Eight + Four) Nos. 11 KV feeders are proposed as STAND BY and EXPRESS Feeders to ensure continuity of Power Supply in case of fault in main 11 KV feeders feeding the 11KV Loops.

- Consumers with Load Greater than 1.5MW are considered as Independent 11KV Feeder Connection as per PIE Instructions.
- Independent Feeders will be laid by the consumers from the Grids (radial system) and they will not be the part of main system nor they will be feeding from Express and Stand By Feeders.
- The primary cables emanate from M.V. Switchgear Panels of 132/11.5kV grid-stations and connect with Ring Main Units. The primary M.V. cable shall be 8.7/15 kV (500mm²) single core aluminum stranded conductors XLPE insulated, PVC sheathed, aluminum armored cables.
- The M.V secondary cables emanate from Ring Main Units and connect with Pad Mounted transformers (PMT) and from PMT to PMT loop connections.
- The M.V secondary cable shall be 3 core 120 sq. mm. aluminum stranded conductor, XLPE insulated PVC Sheathed, steel armored cables. Both the M.V primary and secondary feeders shall be directly laid in the cable trenches of specified configuration and sizes.
- Main Feeders are proposed with 500 mm² single core(15 KV Class)XLPE/AWA/PVC cable to cater for the total ultimate load demand of the Project. The H.T Feeders have been designed to form open-end loop system to ensure continuity of supply in case of segment faults. The network has been proposed to achieve the **safe operation, technical feasibility and stability of supply** at the same time ensuring possible **economy**, as well as the **aesthetics** of the Scheme.
- 4 (four) Nos. Standby feeders are proposed from each grid to feed the other Grid with part load maximum of 20MW, in absence of any one grid station.
- 2 (Two) Nos. Express Feeders are proposed from each grid as back up supply in case of fault or maintenance of primary/trunk feeders.

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- The standard practices of NEPRA CSM as well as design instructions from PIEDMC have been followed in preparing the Design.
- Only Actual Quantity of Transformer is considered in the BOQ and Estimates.

LOAD CRITERIA.

Load has been assumed with the following design criteria:

Industrial Plots	½ Acre	100 kVA	85 kW	per Plot
	1 Acre	200 kVA	170 kW	per Plot
	1.5 acre	300 kVA	255 kW	per Plot
	2 Acre	400 kVA	340 kW	per Plot
	4 Acre	800 kVA	680 kW	per Plot

Load for merged plots have been taken as provided by individual consumers. Meanwhile, for plots whose load is not provided by consumers, load is taken as per NESPAK design criteria.

For the loads greater than 500KW and area comprising of 4 Acres & above the load taken is 1250 KVA per plot and this falls in B-3 category of Tariff i.e. connection at 11 KV system so RMU with a Transformer foundation only is proposed for Plots(As per NESPAK Design). The foundation shall accommodate any Transformer up to 1250 KVA. However, a suitable size of Transformer shall be installed to provide any Temporary connection as and when required. Alternatively, if the load of any plot does not come under B-3 connection, appropriate capacity of transformer shall be installed to accommodate the same.

Transformer Sizes for the 4 Acre plots and merged plots consumers with load greater than 500KW are not proposed in the design as they will have a B-3 connection at 11 KV system.

PROPOSED MATERIALS

The material and equipment for Distribution System has been proposed with standard available sizes and ratings. WAPDA specifications have been adopted for the equipment and material.

- Spare quantities of material are also considered in BOQ for maintenance of system.
- Major Electrical material and other components with rating/sizes have been proposed keeping in view the ultimate load requirements and are given as below :-

Ring Main H.T Switches.

Operating Voltage 11 KV.630Amp.
3-Way and 4-Way

**H. T. XLPE Armored Cables
for Main 11KV Feeders**

500mm² AL/XLPE/AWA/PVC Cable 1-
core, Operating Voltage 11KV (15KV Class)

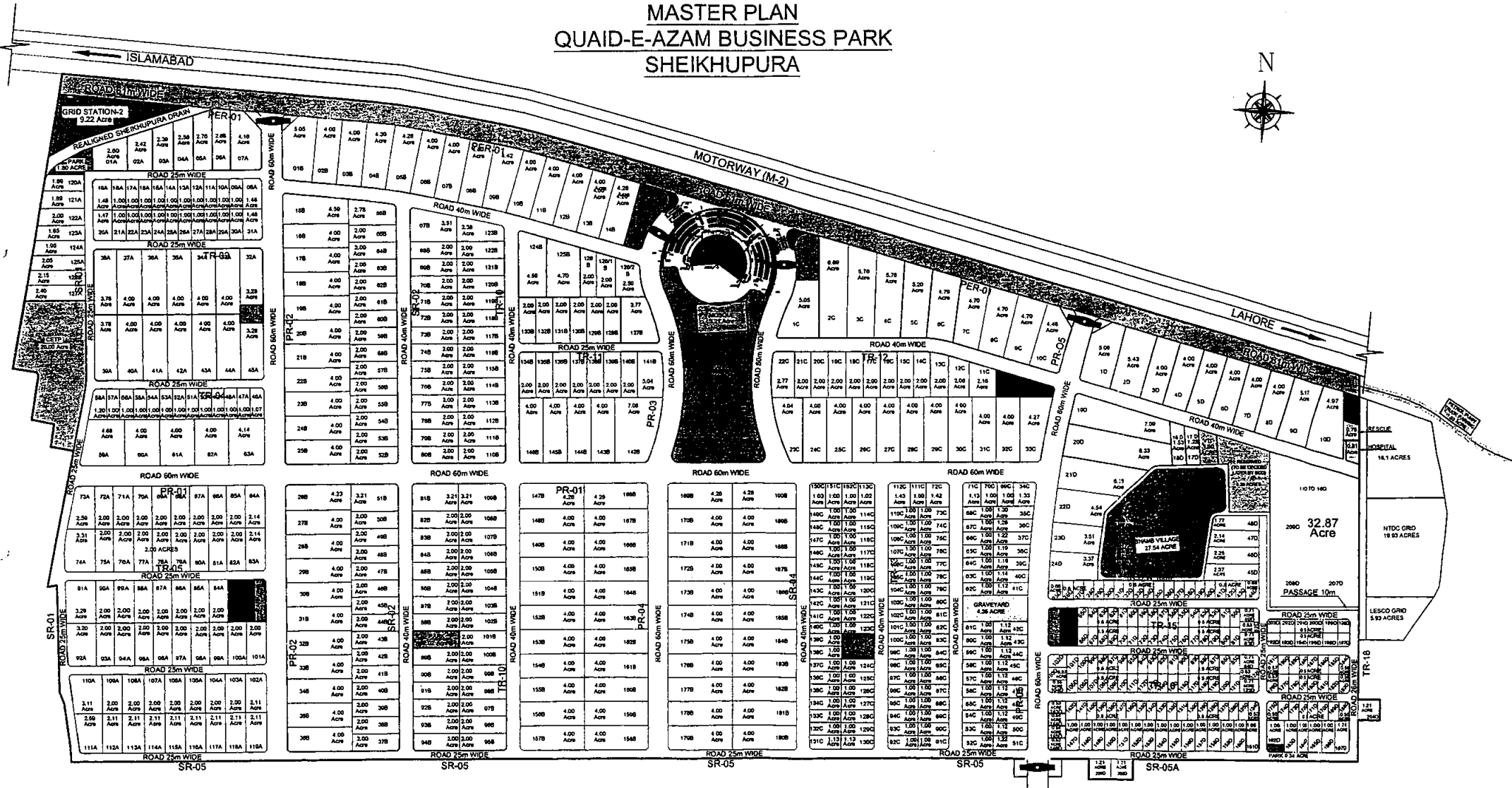
**H. T. XLPE Armored Cables
for Ring/Loop**

120 mm² 3-Core
AL/XLPE/PVC/SWA/PVC/Operating
Voltage 11 KV (15 KV Class)

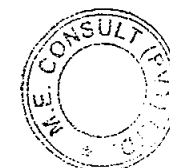
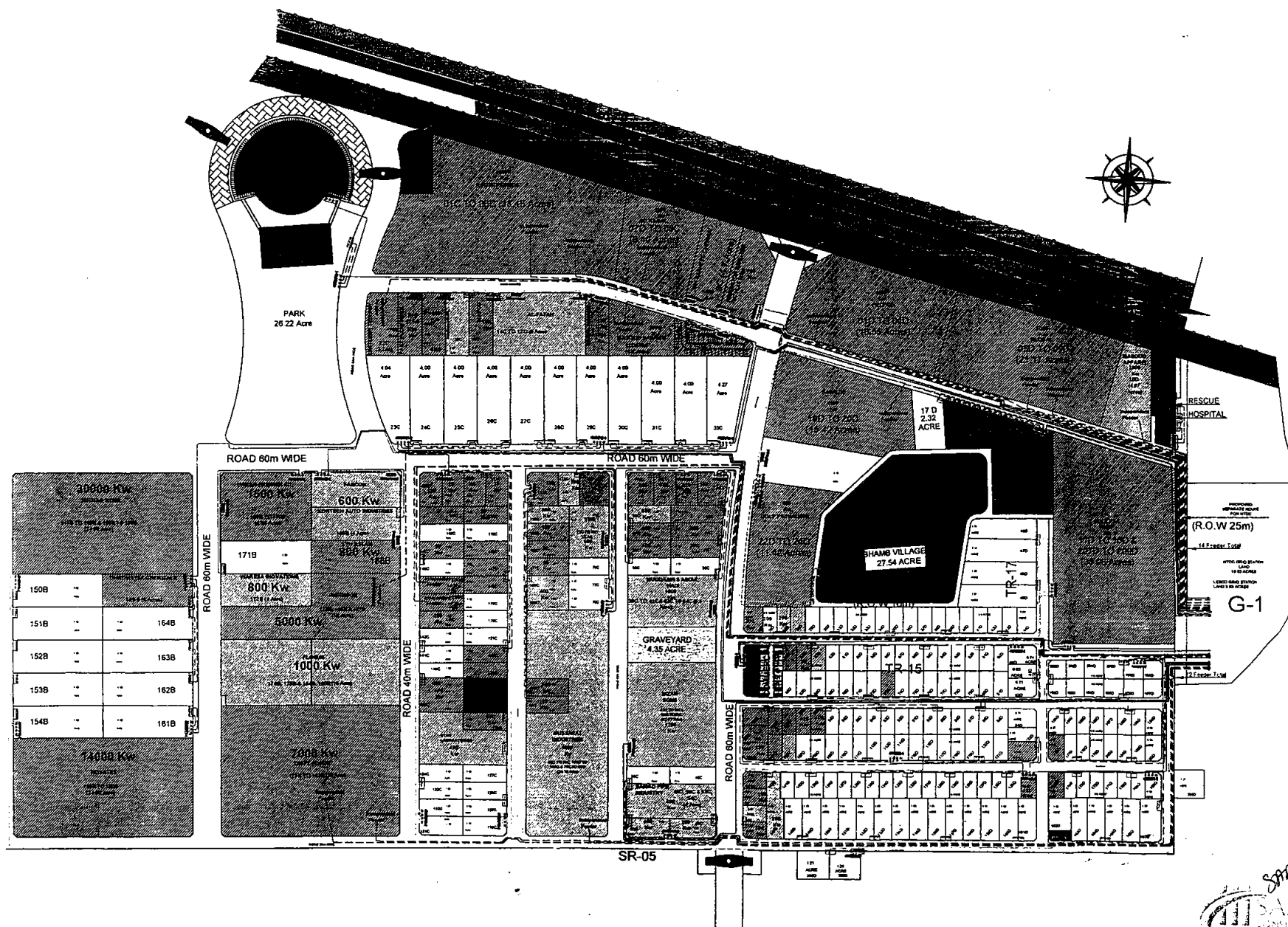
**Pad Mounted Distribution
Transformers**

750, 1000 and 1250 KVA
Operating Voltage 11KV/0.415KV.

MASTER PLAN QUAID-E-AZAM BUSINESS PARK SHEIKHUPURA



QUAID-E-AZAM BUSINESS PARK
SHEIKHUPURA



LEGEND

****	4 WYE REAL TYPE 875 DISCHES
XYZ	TRANSFORMER
XYZ	TRANSFORMER FOUNDATION
-----	UNDERGROUND HT CABLE
-----	UNDERGROUND HT CABLE
-----	UNDERGROUND HT CABLE
-----	UNDERGROUND HT CABLE
-----	INDEPENDENT FEEDER

PROJECT: RE-DESIGN FOR
UNDERGROUND EXTERNAL ELECTRIFICATION
SYSTEM WITH MERGED PLOTS
AT QAID-E-AZAM BUSINESS PARK
SHEIKHUPURA

TITLE: MV NETWORK DRAWING GRID 1



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




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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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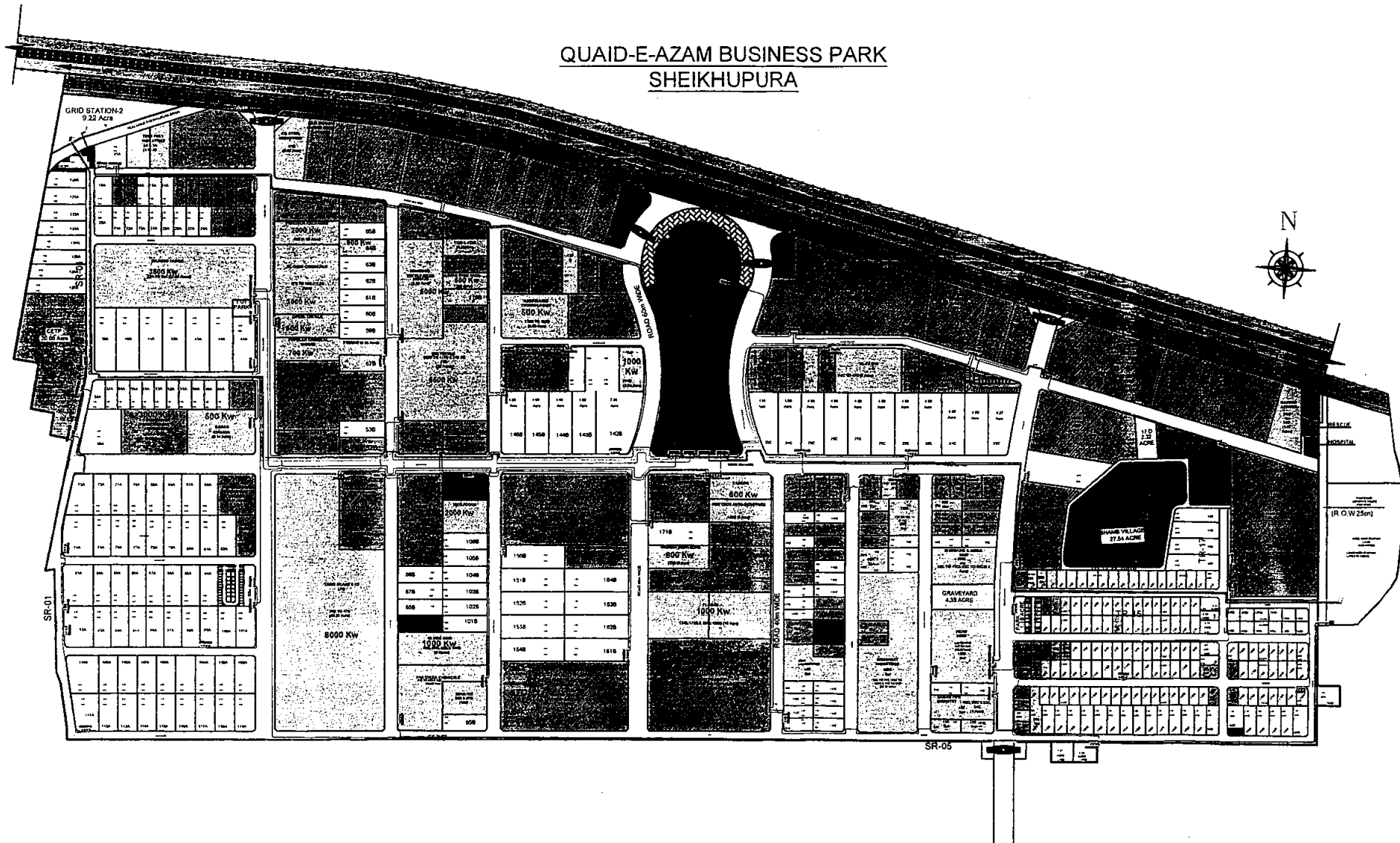
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Country	Age	Gender	Sex


Country	Age	Sex	As shown
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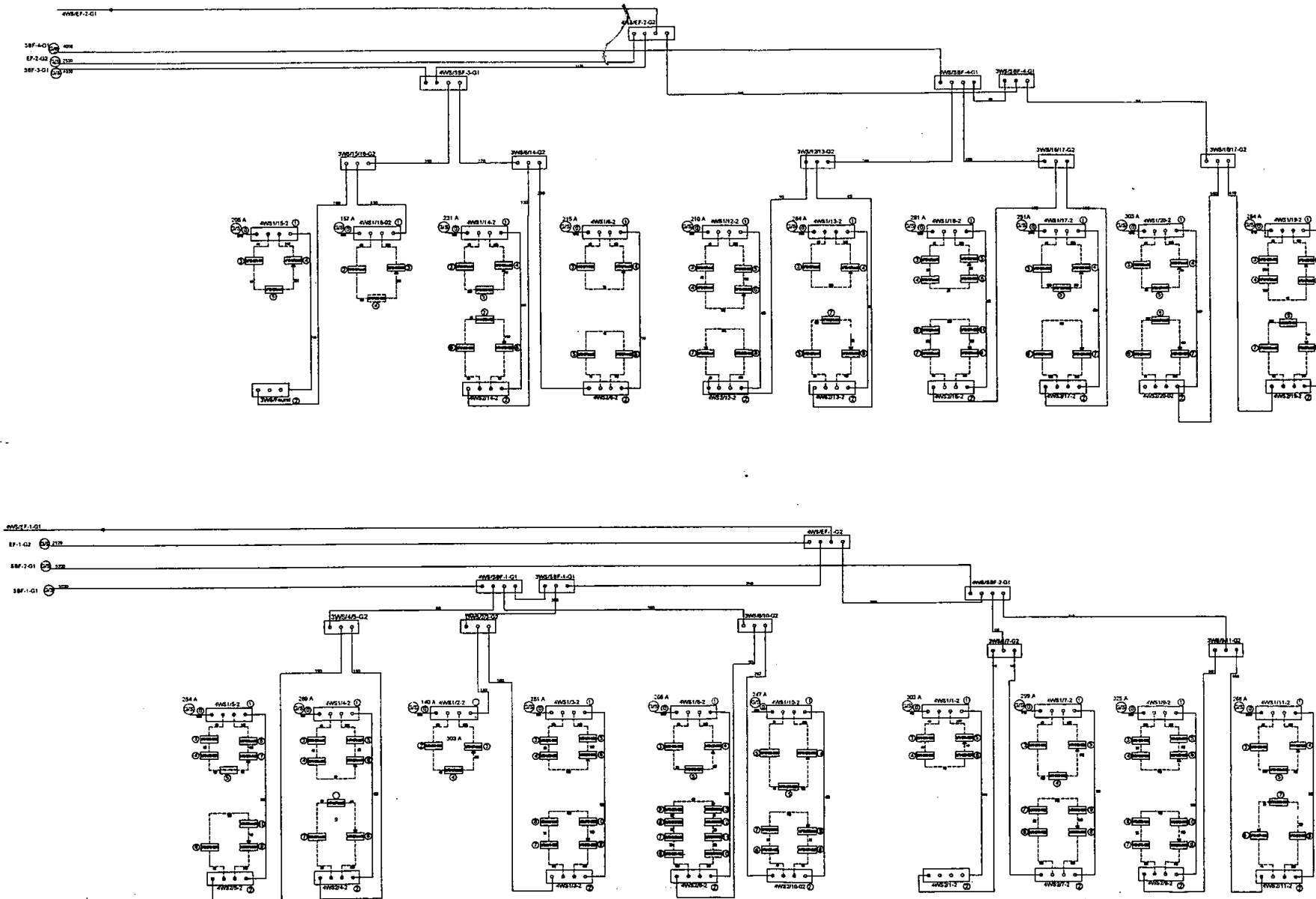
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<h1>LEGEND</h1>				
 4 WAY ROAD TYPE SIGN SWITCH				
 TRANSFORMER				
 TRANSFORMER FOUNDATION				
 UNDERGROUND HV CABLE STEEL/ST.C.S./AL/PVC/PVCS/BB/PVC				
 UNDERGROUND LV CABLE STEEL/ST.C.S./AL/PVC/PVCS/BB/PVC				
 INDEPENDENT FEEDER				
PROJECT: RE-DESIGN FOR UNDERGROUND EXTERNAL ELECTRIFICATION SYSTEM WITH MERGED PLOTS AT QUAND-5 AZAM BUSINESS PARK SHEIKHUPURA				
TITLE: MV NETWORK DRAWING GRID 2				
 M.E CONSULT (PVT) LTD. 101, B-10, PAF, KARACHI-75200, KARACHI, PAKISTAN TEL: 021-445-3811/105, 03-PAF, AND 1021-105 E-MAIL: meconsult@meconsult.com				
Drawn by:	A.R.D.	Checked by:	A.R.D.	
Checked by:	M.S.	Design by:	A.R. KHAN	
Date:	14-02-2023	Designing by:	sameer	

QUAID-E-AZAM BUSINESS PARK SHEIKHUPURA



PROJECT		RE-DESIGN FOR UNDERGROUND EXTERNAL ELECTRIFICATION SYSTEM WITH MERGED PLOTS AT QUAID-E-AZAM BUSINESS PARK SHEIKHUPURA	
TITLE		Express & Stand By Feeders Grid 1 & Grid 2	
		M.E. CONSULT (PVT) LTD. 1716, BAHAR IN CHOK NEW GARDEN TOWN, LAHORE TEL: 346-8888 FAX: 346-8888 Email: info@meconsult.com	
Drawn by	A.N.D	Checked by	A.H.I
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Date	14.09.2023	Drawing No	EX-001-23

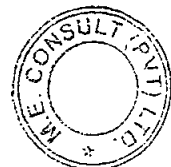
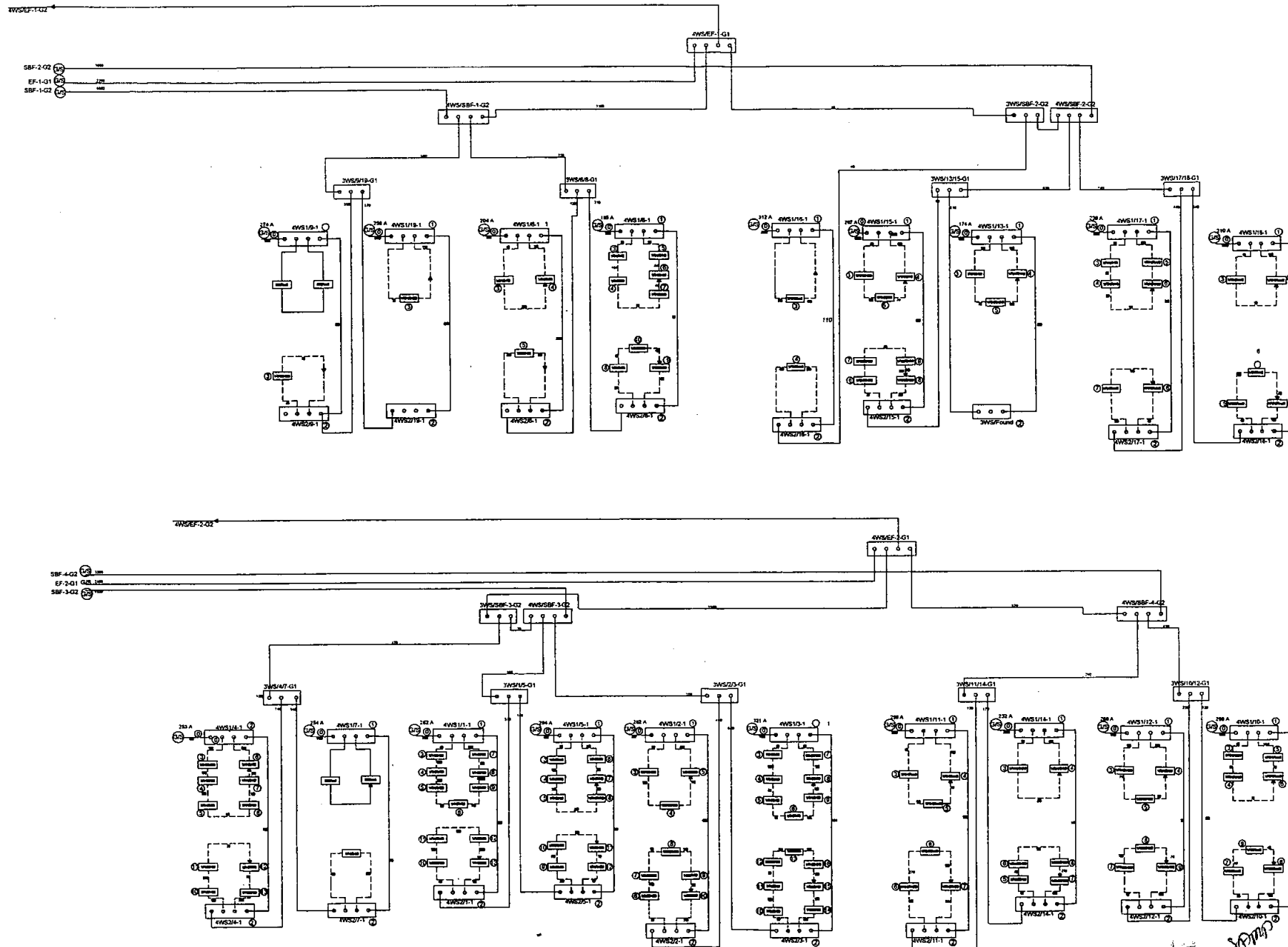


PROJECT RE-DESIGN FOR
UNDERGROUND EXTERNAL ELECTRIFICATION
SYSTEM WITH MERGED PLOTS
AT QUAD-E-AZAM BUSINESS PARK
SHERSHUPURA

TITLE
SINGLE LINE DIAGRAM
GND 2

M.E. CONSULT (PVT) LTD.			
100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000			
Drawn By	ASD	Checked By	A. S. S.
Designed By	MT	Issued	A. S. S.
Date	20.08.2007	Drawing No.	SLD

SPMD
SPMD

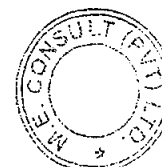
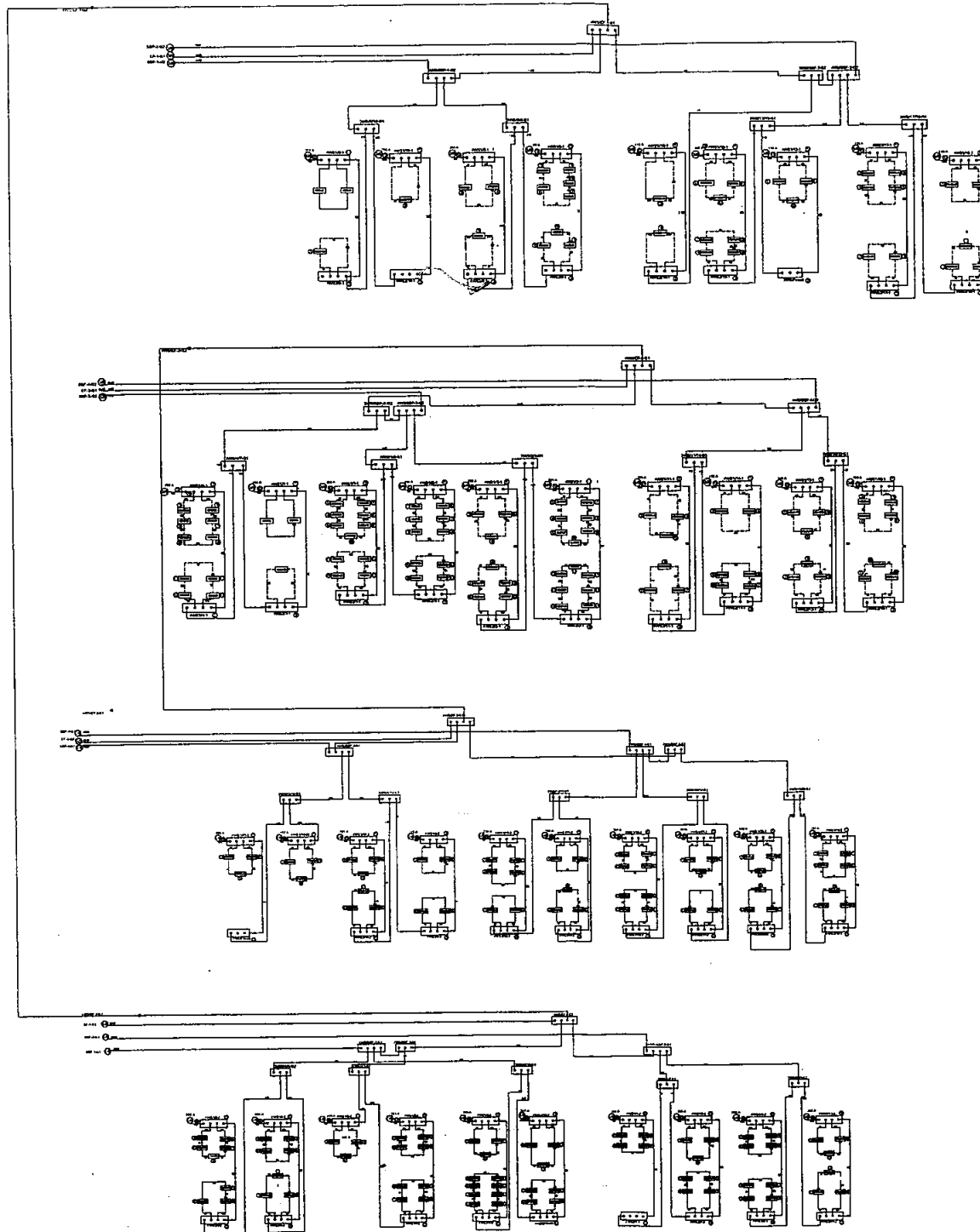


PROJECT: RE-DESIGN FOR UNDERGROUND EXTERNAL ELECTRIFICATION SYSTEM WITH MERGED PLOTS AT QUAID-E-AZAM BUSINESS PARK SHERKHUPURA

TITLE: SINGLE LINE DIAGRAM GRID 1

M.E. CONSULT (PVT) LTD.			
110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000			
Drawn by	AKSD	Checked by	A. B. N.
Designed by	WJ	Reviewed by	AKSD
Date	11-09-2022	Project No.	AKSD

SAMD
CONSULTANTS



PROJECT: RE-DESIGN FOR
UNDERGROUND EXTERNAL ELECTRIFICATION
SYSTEM WITH MERGED PLOTS
AT QUAID-E-AZAM BUSINESS PARK
SHEIKHUPURA

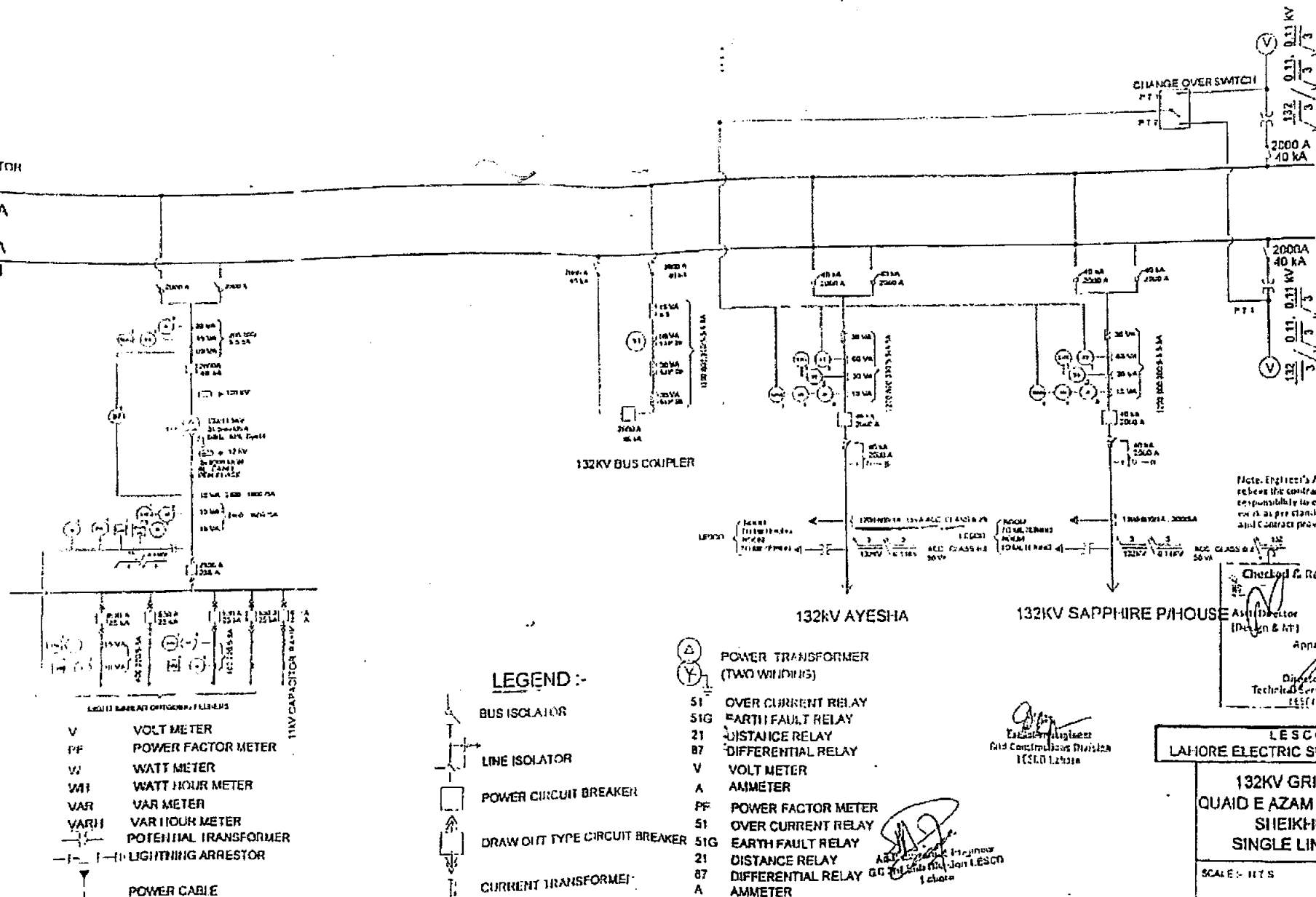
TITLE
SINGLE LINE DIAGRAM
GRID 1 & GRID 2

M.E. CONSULT (PVT) LTD.
10/A ANJALI BLOCK, NEW GARDEN TOWN, LAHORE
TEL: +92-300-11100-41 FAX: +92-300-11100-42
Email: meconsult@meconsult.com

Drawn By	A.H.S.	Design By	S.H.R.
Checked By	M.Z.	Review	A.S. KHAN
Date	24.08.2002	Drawn No.	0.02

M.E. CONSULT (PVT) LTD.
CONSULTANTS

HOWTHORN CONDUCTOR
132KV BUS-I
2x 600 MM 40KA
2x 600 MM 40KA
132KV BUS-II



Note: Engineer's Approval does not release the contractor of his responsibility to execute the work as per standard/specifications and Contract provisions.

Checked & Recommended by
Asst. Director (Design & HT)
Approved By
Director (Design)
Technical Services Directorate
LESCO (P) Limited

LESCO
LAHORE ELECTRIC SUPPLY COMPANY
132KV GRID STATION
QAUID E AZAM APPAREL PAF
SHEIKHUPURA
SINGLE LINE DIAGRAM
SCALE: 1:1125

LEGEND :-

- POWER TRANSFORMER (TWO WINDINGS)
- BUS ISOLATOR
- LINE ISOLATOR
- POWER CIRCUIT BREAKER
- DRAW OUT TYPE CIRCUIT BREAKER
- CURRENT TRANSFORMER
- 51 OVER CURRENT RELAY
- 51G EARTH FAULT RELAY
- 21 DISTANCE RELAY
- 87 DIFFERENTIAL RELAY
- V VOLT METER
- A AMMETER
- PF POWER FACTOR METER
- 51 OVER CURRENT RELAY
- 51G EARTH FAULT RELAY
- 21 DISTANCE RELAY
- 87 DIFFERENTIAL RELAY
- A AMMETER

Asst. Engineer
Grid Construction Division
LESCO Lahore

Asst. Engineer
Grid Construction Division
LESCO Lahore

SCHEDULE-III

**RELAVANT FEEDER MAPS NUMBER OF CONSUMERS AND
EXPECTED LOAD**

Description / Tariff	No. of Consumers	Load (MW)
B3	100	150
B2	350	60
B1	50	10
E-ii	100	5
Commercial / Community Facilities	-	15
TOTAL	600	240

**CONSUMER CLASS/CATEGORY ON THE BASIS OF SANCTIONED
LOAD AND VOLTAGE LEVEL.**

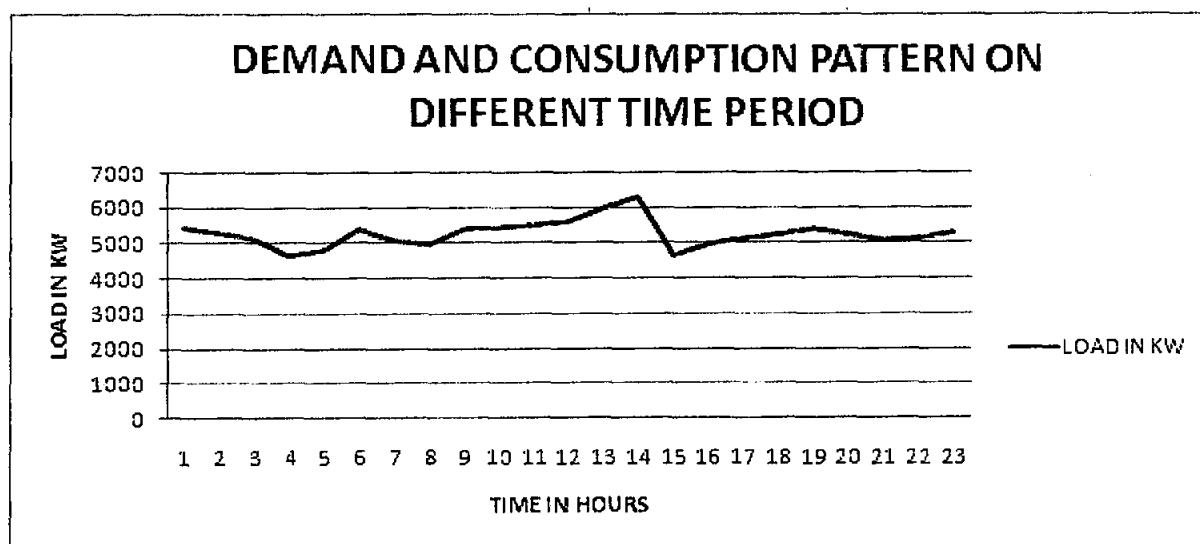
Connection Category of Consumer	Voltage	Load	Type of Connection	No. of Consumers.
Category 1	230/400V	Upto 50KW	Temporary	100
Category 2	230/400V	Up to 25 kW	Permanent	50
	400V	Above 25 kW but not exceeding 500 kW		350
	11KV	Above 500 kW but not exceeding 5000 kW		100

TARIFF CATEGORIES OF CONSUMER CLASSES TO BE SERVED.

Connection Category of Consumer	Type of Connection	Tariff Category	Load	No. of Consumers.
Category 1	Temporary	E-2	Upto 50KW	100
Category 2	Permanent	B-1	Up to 25 kW	50
		B-2	Above 25 kW but not exceeding 500 kW	350
		B-3	Above 500 kW but not exceeding 5000 kW	100

DEMAND AND CONSUMPTION PATTERN ON DIFFERENT TIME PERIODS:-

Mostly, the industries work on 24 hours basis on 3 shifts (8 hours shift each). The Peak load is expected in between 9am to 2pm from Monday to Friday.



PROCUREMENT PLAN FOR MEETING EXPECTED LOADS (INCLUDING OWN GENERATION AND/OR LONG TERM AND SHORT TERM PPAs):-

Procurement of power from IPPs is being considered as a second/cheapest source for the Industrialist Estate through direct connection/wheeling as a long term and short term solution of energy shortfall as well.

Pakistan is currently passing from one of its worst energy crisis. It is very difficult to supply continuous electricity to Industrial Estates, to Increase the industrialization and make the availability of 24hrs electricity. There is a need to add more power in PIEDMC all projects. PIEDMC is aggressively pursuing for adding new power generation capacity for all its projects throughout Punjab province by any PPPs in the affordable cost through wheeling arrangement of NTDCL/ DISCOs. The contract of Power Purchase with PPP's will be regulated as per NEPRA rules and regulations.

12-MONTH PROJECTION ON EXPECTED LOAD, NO. OF CONSUMERS AND EXPECTED SALE OF UNITS FOR EACH CONSUMER CATEGORY.

Month	No. of Consumers	Expected MDI in Kilo-Watt	Expected Unit Consumption.
November-2022	12	6340	3761940
December-2022	15	7608	4138134
January-2023	20	9130	4551947
February-2023	25	10956	5007142
March-2023	30	13147	5507856
April-2023	35	15776	6058642
May-2023	40	18931	6664506
June-2023	45	22717	7330957
July-2023	50	27261	8064052
August-2023	55	32713	8870458
September-2023	60	39256	9757504
October-2023	65	47107	10733254

SAAD
SAAD
CHIEF ENGINEER

Training and Development Procedures

Introduction

In order to keep PIEDMC Electrical Staff fully updated with the electrification in Industrial Estates, PIEDMC has established a Training and Development Manual.

Training is provided to employees of Customer Services and the Electrical department.

Training at regular interval is arranged by Chief Engineer for the Technical Staff where new and efficient maintenance and fault locating methods are being explained for implementation.

The Employees from customer relations are also updated at regular intervals of any change in customer policy and change of Tariff etc.

All the operations and maintenance (O&M) staff of Quaid-e-Azam Solar Park Sheikhpura are trained as per the training manuals of Lahore Electric Supply Company (LESCO). The staff is trained to provide high quality services and are trained in the following areas:

- Introduction to Training Programmed Organization and System
- Overview of role and Duties of Line Superintendent.
- Material of use in construction line
- Use and care of T&P.
- Service Installation(LT & HT)
- Patrolling of lines
- First aid skills and practices
- Basic electricity concept, testing/measure instruments and their uses
- Distribution system standards and specifications
- Distribution system planning
- Installation of Earth system
- Distribution system operation
- Distribution system maintenance
- Location of faults and consumer complaints
- Safety and Safety equipment
- Fire prevention and control
- Distribution system mapping
- Energy meters-Installation, checking and maintenance.

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CONSUMER SERVICE MANUAL:-

As per Regulation 10(1) of S.R.O 446(I)/2022 dated 28-03-2022, "Within ninety days after the date of issuance of the electric power supply license, the licensee shall develop and submit a Consumer Supply Manual to the Authority for approval, provided that the Authority may approve a standard Consumer Supply Manual and other licensees may adopt the same for compliance thereof.

PROPOSED SERVICE TERRITORY:-

Service territory is Quaid-e-Azam Business Park, Sheikhpura for which 1860 acres land has been acquired and right of way has been procured. NEPRA has been approached by PIEDMC for issuance of distribution license/NOC in favor of Quaid-e-Azam Business Park, Sheikhpura.

The area consists of the saleable plots of ½ Acre, 1 Acre, 2 Acre, 3 Acre, 5 Acre and above plots for industrialists units and 5, 7.5, 10 & 15 Marla plots for commercial purpose. Moreover, proper road network, amenities and other utilities are available in the Quaid-e-Azam Business Park, Sheikhpura for ease of business for the industrialists. Moreover, 1 x 220 KV & 2 x 132 KV Grid Station planned within estate to cater the ultimate load of 240MW and provide smooth and reliable power supply to the land owners inside the estate.

SBMD
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BILLING AND COLLECTION PROCEDURE

➤ Electricity Billing Procedure:-

1. Signed reading sheets received from Electrical Department by 05th of every month.
2. Preparation of Electricity (B-1, B-2, B-3, & Temporary) tariff-wise sheets for uploading on software.
3. Update the electricity billing sheet (new Connection / Extension of load) data given by Electrical Department.
4. Preparation & calculation of LPS of Electricity Billing.
5. Calculate the any new adjustment / relief passed by LESCO.
6. Billing to Customers as per NEPRA / Govt. notified tariffs and rates.
7. Compiling, printing and dispatching of Electricity Bills after receiving of SIE LESCO bill.
8. Billing is being precede at-par with NEPRA / Govt. notified tariffs and rates through Power Information Technology Company (PITC) on Integrated Billing System (IBS).

➤ Collection Procedure:-

1. Mode of Payment:
 - i. Cheques
 - ii. Pay order
 - iii. IBFT
 - iv. RTGS
 - v. Online Transfer
 - vi. Cash (No cash payment received at BOM Customer deposits cash directly into the Bank)
2. Customer approached One-Window for deposit of bill.
3. SIE representative enter bill number in software.
4. Confirm the title, enter instrument number / date.
5. System generated receiving provided to customers.
6. It is mandatory for customer who deposits bill through IBFT, RTGS to get system generated receiving.

SAM
SAND
COMPLIANCE

ABILITY TO ACCESS CONSUMER METERING SYSTEMS AND OTHER SERVICES/EQUIPMENT.

Meter reading of all the consumers of PIEDMC is carries out on a routine basis each month to record the consumption during a given period (billing cycle/billing month). The meter reading is generally taken/recorded by the concerned staff of PIEDMC (Meter Inspector, Meter Reader).For the purpose, the consumers of each sub division into a number of batches and sub-batches. The meter reading program shall be prepared in such a way that the meters of a batch are normally read on the same dates each month.

To ensure the proper billing to consumer of industrial estate, all energy meters will be purchased from the WAPDA approved manufacturers who will ensure the accuracy of these meters. Moreover, the testing and calibration of purchased Energy meters will be performed from concerned DISCO at the cost of consumer before energization/Installation of Energy meters.

Meter readings of all types of connections are as under:

Designation	Load	Type of connection	Type of Meter	Meter Accuracy Class
Meter Reader	Upto 50 KW.	Temporary	Whole Current Energy Meter	1
Meter Reader	Upto 25 KW.	Permanent	AMR Meter	0.5
Meter Inspector	Above 25KW to less than 500KW.	Permanent	AMR Meter	0.5
Assistant Manager(O&M)	500KW and Above.	Permanent	AMR Meter	0.2

Taking snapshots of meter readings of all consumer categories is mandatory. Meter readings are taken through mobile snapshots/hand held units to ensure correct readings. The snapshots of meter reading including Net Metering facility wherever applicable showing import and export units are printed on electricity bill. PIEDMC shall make available record of snapshots for twelve months for presenting before concerned DISCOs, NEPRA or any other competent forum if required for settlement of billing dispute, raised by any consumer.

Meter Readers shall also check the irregularities/discrepancies in the metering system at the time of reading meters / taking snapshots and report the same in the reading book/discrepancy book or through any other appropriate method as per the practice. The concerned officer/official will take corrective action to rectify these discrepancies.

PIEDMC install back-up meter on all industrial connections having sanctioned load of 25KW and above on request of the consumer. The cost will be borne by the consumer if meters provided/arrange by PIEDMC on consumer's request. In case of any defect in the billing meter, the back-up meter will be converted into billing meter and the bill shall be charged on the basis

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3/1/20
CO. 101006

of the consumption recorded on the back-up meter. Upon replacement of the impugned meter, the same will be treated as back-up meter.

PIEDMC will be also adopted GSM Based Energy Meter in their Industrial Estates (Already adopted in Quaid-e-Azam Business Park, Sheikhpura). It reduces human intervention required in keeping track of the total power consumption of the users. An SMS is sent directly to the user indicating the consumption and bill without the need of any individual from the Electricity Department to physically visit the site to note down the readings by the use of GSM module. This automation not only reduces the labor cost but also makes the system more efficient and accurate.

EMERGENCY PROVISIONS AND PROTOCOL

To cater for any emergency situation, express/ back up feeders have been provided. Sufficient line material and spares parts have been procured by PIEDMC and are readily available at site store Quaid-e-Azam Business Park, Sheikhpura to meet with any emergency situation which arrive at any time of the day.

A well trained, competent and educated distribution/O&M staff has been hired by PIEDMC, who are working under well-qualified supervisors in three (3) shifts. The staff is available on 24/7 basis to attend any emergency situation and for preventive maintenance of the system as well.

BASIS OF COMMON SERVICES FOR COMMERCIAL AND RESIDENTIAL CONSUMERS AND THEIR ALLOCATION THEREOF:-

1. ELECTRICAL CONNECTIONS

PIEDMC will provide temporary and permanent electrical connections to Resident Industrialists. A temporary electric connection for construction and operation purpose or any other emergent requirement of temporary nature will be given to consumer on first stage. A temporary electric power supply connection for the construction shall be provided by PIEDMC initially for a period of six months which is further extendable on three months basis up to connection of the specific job/project for which the temporary connection was obtained. The sanctioning officer ensured that the temporary connection is utilizing for temporary purpose only. After the construction work has been completed at site, the permanent connection will be given to resident industrialist basis upon their load requirement on different Tariffs as per kind of connection.

2. PROVIDING THE RING MAIN SYSTEM TO ENSURE THE SUSTAINABILITY AND RELIABILITY OF THE POWER SUPPLY TO CONSUMERS.

PIEDMC provide the ring main system to ensure the sustainability and reliability of the power supply to their consumers. In ring main system, one ring network for load point is fed

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by more than one feeder and also connected with express feeders. In this case, if one feeder is under fault or maintenance, the ring distribution is still intact by other feeders connected to it. In this way, the supply to the consumers is not affected even when any feeder becomes out of service.

3. PREVENTIVE/SCHEDULE MAINTENANCE

To keep the electrical power system in safe, stable and reliable operating condition, it is necessary that the system should be operated and maintained properly to retain its each component in or restore it to a state in which it can perform a required function.

The preventive maintenance carried out in accordance with an established time schedule. Scheduled maintenance covers all measures aimed at retaining the design state of the technical equipment belonging to a system and may take place as and when required or in regular/fixed interval of time. Scheduled maintenance includes such activities as cleaning and washing, conservation, lubrication and where necessary amending or replacing parts subject to wear and tear. Scheduled maintenance also involves preparation of maintenance schedules, carrying out the specified work and dealing with feedback relating to this work. It is worth mentioning that an effective preventive maintenance program always minimizes emergency maintenance breakdowns and damages of grid station equipment.

4. TROUBLE SHOOTING/NON-SCHEDULED MAINTENANCE

Non-scheduled or corrective or emergency maintenance is often not in accordance with an established time schedule and usually needs as result of malfunction or unexpected defect. Non-scheduled maintenance covers all measures aimed at restoring the designed state of the technical equipment belonging to a system. Repair work and part replacement are typical types of corrective maintenance. It also involves planning, handling requests for performing/checking and evaluating the necessary measures (functional tests etc.). To identify the fault in case of Power Failure, the troubleshooting is done through test instruments and corrective measurements which can be used to help narrow the problem area and identify the problem components. Once the equipment is repaired/replaced, the power is restored.

5. COMPLAINT HANDLING

Compliant in respect of new connections, meter reading and billing, electric supply failures and other matters relating to supply of electric power services has been handled by PIEDMC expeditiously. One window Operations are established in PIEDMC offices wherein all types of complaints are received from the consumers who are given acknowledgement of the same with definite dates for their replies according to time frame for handling and redressal of such complaints. These complaint offices shall work on 24-Hours basis even during holidays. The working of these complaints is to be supervised by higher officers of Electrical Department PIEDMC. The Customer Feeder back is also monitored and their grievances are readdressed as well.

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6. ENSURE THE QUALITY POWER SUPPLY AS PER NTDC/NERPRA:-

To provide uninterrupted power supply to customers enabling trade and industry, educational & social activities to flourish and enrich the Consumers, PIEDMC ensured the Standard Quality power supply as per NTDC/NEPRA. The parameters of electricity are maintained as per NTDC/NEPRA permissible limit of Voltage, Frequency and Power Frequency to ensure the quality of power to be supplied.

7. CONSTRUCTION OF OWN GRID STATIONS FOR ENSURING QUALITY POWER SUPPLY

PIEDMC is being constructed own two no's 132KV Grid Stations to cope with the increasing load demand and would provide quality electricity to people with lesser power outages, and reduce line losses as well.

8. ESTABLISHING THE ALTERNATE SOURCE OF POWER:-

PIEDMC is also establishing the alternate source of power through IPP's as a long term and short term solution of Energy Short fall as well and to supply continuous electricity to Industrial Estates, to Increase the industrialization and make the availability of 24hrs electricity.

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1. SAFETY, HEALTH, AND ENVIRONMENT (SHE) FOR ELECTRICAL O & M WORKS

Areas to be addressed while making Electricity O & M SHE Manual:

- Study the nature of complaint/Fault/Work to do the job safety analysis.
- Planning & Preparation for SHE according to the nature of complaint/Fault/Work.
- Selection of Tools & protective gears according to complaint/Fault/Work.
- Preparation of Skilled workers with selected Protective gears.
- Evaluate the environment of work place under complaint/Fault/Work.
- Comply the work place ethics.
- Firefighting procedure & Standards compliant shall assure before execution of any complaint/Fault/Work plan.
- Identify the area /equipment under complaint/Fault/Work.
- Comply the Procedure to get PTW (Permit to work).
- Cordon off the area under complaint/Fault/Work.
- Isolate the live part/Area from the effected or under work area /equipment as per nature of complaint/Fault/Work.
- Earth the equipment /system under fault with earth set on both sides of equipment in case of fault to avoid any electric shock.
- Use the calibrated Measuring Instruments to ensure the isolation of equipment under complaint/Fault/Work i.e. HT/LT Tester etc.
- Tag in /Tag Out the switching on Operational Board by the despatcher and on equipment by the Engineer /Supervisor to avoid any operational mishap.
- Maintenance /Installation/Repairing shall be done as per Equipment Manual.
- After execution of plan for complaint/Fault/Work, system shall be restored as per original design to avoid any operational hazards.
- Check the design parameters of system to ensure the quality of work executed for complaint/Fault/Work.
- Keep the work place clean after handling complaint/Fault/Work.
- Cancellation of PTW (Permit to work) as per procedure.
- Technical input after carrying the job shall be part of report, drawing, data and operational board if required to avoid electrical operational hazards.
- Ensure the availability of First Aid medicine, Gadgets & Gears kit as per site requirement.
- Emergency Management Services shall be on board 24/7/365.
- Work at height through Ladder and scaffoldings technical training and developments to ensure safety.
- SHE Compliance report Weekly /Fortnightly/Monthly.
- SHE audit.
- SHE compliance surprise visit by the SHE manager on work place to ensure the compliance.
- Calibration of safety gadgets with due course of time to ensure health of equipment.
- Ensuring the safety, fire prevention, Firefighting, fire management and accident

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management drills.

- T & D for learning about electrical hazards.
 - SHE Risks evaluation and mitigation through effective risk management.
 - Placement of SHE signs and precautions.
 - Providing Hygiene environment management system.
 - SHE compliance Award and Allowances.
 - SHE Awareness and orientation workshops.
 - Technological changes acceptance attitude development for effective compliance of SHE.
 - Ensure the usage and safe handling of personal protective equipment (PPEs) during electrical works.
 - Proper Implementation of Traffic management plan (e.g.; Give way to emergency vehicles, such as fire tenders, Rescue vehicles Ambulances etc.).
 - Comprehensive Emergency preparedness and response plan.
 - Waste disposable mechanism for combustible and non-combustible materials.
 - Accident /Emergency report format for record keeping.
 - Develop Key performance indicators (KPIs) for effective implementation of SHE manual.
 - Any other point to be incorporated for effective compliance of SHE.
-

2. SAFETY ADVISORY

SUMMER / MONSOON SAFETY ADVISORY

WORKING OUTDOORS:

- Make sure your safety gear is in a serviceable/usable condition; use PPE.
- Keep a small towel/ piece of cloth and wipe your tools dry before you use them.
- Use Gum boots and check that the soles have proper tread which avoids slipping.
- Ensure use of safety belt while working at heights.
- Keep away from trees, tall objects, metal objects and water during a thunderstorm.
- Look out for open manholes if you have to wade through standing water, use a stick to feel the ground in front.
- Move cautiously because rain causes slick surfaces, work more slowly particularly when climbing ladders
- Make sure you can be seen. Wear high-visibility clothing, especially in areas with vehicle traffic and heavy machinery.
- Stay clear of areas where there is a lot of debris or downed trees. It could conceal an energized power line.
- Stay clear of chain link fences that may be energized if touching a downed line.
- Stay away from any water that may have downed wires in or near the area.

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TIPS FOR WORKING IN COLD WEATHER:

- Dress in layers so you can adjust for colder conditions but avoid sweating. Cover the head & wear gloves.
- Wear face protection to avoid skin exposure, depending on how cold it is, use sunglasses if it is sunny.
- Cover mouth & nose in extreme cold so that the air you breathe is not immediately cold to your lungs.
- Apply ointments/lotion/oil to keep the skin protected from dryness.

EARTHQUAKE ADVISORY

Actions required to be taken during an earthquake.

During the Earthquake:

- If you are indoors, stay there. Quickly move to a safe location in the room such as under a strong desk, a strong table, or along an interior wall. The goal is to protect yourself from falling objects and be located near the structural strong points of the room. Avoid taking cover near windows, large mirrors, hanging objects, heavy furniture, heavy appliances or fireplaces.
- If you are cooking, turn off the stove and take cover.
- If you are outdoors, move to an open area where falling objects are unlikely to strike you. Move away from buildings, power lines and trees.
- If you are driving, slow down smoothly and stop on the side of the road. Avoid stopping on or under bridges and overpasses, or under power lines, trees and large signs. Stay in your car.

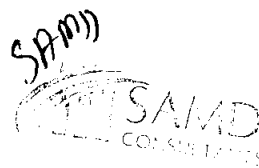
After the Earthquake:

- Check for injuries, attend to injuries if needed, help ensure the safety of people around you.
- Check for damage. If your building is badly damaged you should leave it until it has been inspected by a qualified professional.
- If you smell or hear a gas leak, get everyone outside and open windows and doors. If you can do it safely, turn off the gas at the meter. Report the leak to the gas company and fire department. Do not use any electrical appliances because a tiny spark could ignite the gas.
- If the power is out, unplug major appliances to prevent possible damage when the power is turned back on. If you see sparks, frayed wires, or smell hot insulation turn off electricity at the main fuse box or breaker. If you will have to step in water to turn off the electricity you should call a professional to turn it off for you.





What you need to do during and after the rains/storm:

- Stay abreast with the news and advisories
 - Avoid moving out on the streets until the storm passes
 - Park your vehicles in location to prevent from damage due to falling items (trees, billboards, etc.)
 - Stay away from accumulated water around electrical installations.
 - Don't attempt to repair electrical system or pull wet tree limbs off electric lines.
 - Don't touch wet electrical switches. Particularly outdoor switches must be touched using non-conductor material.
 - Do not lock motorcycles or bicycles with electric poles.
 - Do not touch or fiddle with any falling electric wires.
-



3. SAFETY LEAFLETS

LIFE IS PRECIOUS - BE CAREFUL!

SAFETY FIRST

Remember, safety is the most important thing. Always use common sense and be careful. If you are not sure, ask for help. Safety is everyone's responsibility. You can become part of the solution.

ELECTRICAL SAFETY TIPS




- 1. Always use proper wiring techniques. Do not overload circuits. Use the correct size wire for the load.
- 2. Always use proper grounding techniques. Ground all electrical equipment properly.
- 3. Always use proper bonding techniques. Bond all electrical equipment properly.
- 4. Always use proper labeling techniques. Label all electrical equipment properly.
- 5. Always use proper testing techniques. Test all electrical equipment properly.
- 6. Always use proper safety equipment. Wear your safety glasses and gloves.
- 7. Always use proper safety procedures. Follow all safety rules and regulations.
- 8. Always use proper safety equipment. Use the correct tools for the job.
- 9. Always use proper safety equipment. Use the correct PPE for the job.
- 10. Always use proper safety equipment. Use the correct safety equipment for the job.

WATER SAFETY TIPS

- 1. Always use proper wiring techniques. Do not overload circuits. Use the correct size wire for the load.
- 2. Always use proper grounding techniques. Ground all electrical equipment properly.
- 3. Always use proper bonding techniques. Bond all electrical equipment properly.
- 4. Always use proper labeling techniques. Label all electrical equipment properly.
- 5. Always use proper testing techniques. Test all electrical equipment properly.
- 6. Always use proper safety equipment. Wear your safety glasses and gloves.
- 7. Always use proper safety procedures. Follow all safety rules and regulations.
- 8. Always use proper safety equipment. Use the correct tools for the job.
- 9. Always use proper safety equipment. Use the correct PPE for the job.
- 10. Always use proper safety equipment. Use the correct safety equipment for the job.

GENERAL SAFETY TIPS

- 1. Always use proper wiring techniques. Do not overload circuits. Use the correct size wire for the load.
- 2. Always use proper grounding techniques. Ground all electrical equipment properly.
- 3. Always use proper bonding techniques. Bond all electrical equipment properly.
- 4. Always use proper labeling techniques. Label all electrical equipment properly.
- 5. Always use proper testing techniques. Test all electrical equipment properly.
- 6. Always use proper safety equipment. Wear your safety glasses and gloves.
- 7. Always use proper safety procedures. Follow all safety rules and regulations.
- 8. Always use proper safety equipment. Use the correct tools for the job.
- 9. Always use proper safety equipment. Use the correct PPE for the job.
- 10. Always use proper safety equipment. Use the correct safety equipment for the job.






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BE CAREFUL DURING THE RAIN

Downed power lines are not safe to touch, nor to be near.

Keep your children away from power sockets.


Don't touch electrical appliances when you are barefoot or have wet hands.

Don't ring the doorbell with wet hands.

Do not stand near billboards, trees, electricity poles and transformers during rainy and windy weather.

Stay clear of any electricity installations that are submerged in floodwater. Take extra care of the electricity and children.

Be aware of cable TV and internet wires as they can be dangerous during rain.



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Don't ring the doorbell with wet hands.

Do not stand near billboards, trees, electricity poles and transformers during rainy and windy weather.

Stay clear of any electricity installations that are submerged in floodwater. Take extra care of the electricity and children.

Be aware of cable TV and internet wires as they can be dangerous during rain.

4. NEPRA GUIDELINES FOR POWER SAFETY CODE FOR
TRANSMISSION & DISTRIBUTION LICENSEES
(First Edition November, 2014)

PSC- 6 Detailed Instructions of Power Safety to be considered while preparing the Power Safety Manual

PSC-6.1 Purpose, Scope & Philosophy of Safety Policy

Each licensee shall elaborate the purpose & scope of overall safety policy, vision of the licensee about safety, fundamentals of the power safety and the issuance of power safety manual to all concerns.

Duties & responsibilities of safety team/safety directorate & others regarding training, record, implementation, auditing and preventive action shall be clearly defined by each Licensee. The Licensee shall provide such records to NEPRA as and when required.

PSC-6.2 Basic Safety Guidelines

The licensee shall provide the basic safety guidelines primarily for persons who have not been appointed as competent persons under power safety code or persons who work beyond their scope of competence.

The basic safety guidelines shall comprise but not limited to the following:

- General Principals
- Operations
- Fire Precautions & work in confined space
- Work in Substations & Compounds

The general basic principles of safety shall also be observed i.e.:

- Identification of Hazards
- Elimination of Hazards
- Controlling of Hazards
- Protection against injuries
- Minimizing the severity of injury
- Avoiding for future occurrences

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Unsafe conditions or unsafe acts shall be clearly defined, as the good operation is only the safe operation.

Examples of un-safe conditions be clarified i.e.:

- Improper Guarding
- Defective material or equipment
- Hazardous arrangements/Insufficient lighting
- Improper ventilation
- Unsafe Clothing
- Unsafe Design & Construction

Examples of Un-Acts be clarified i.e.:-

- Operating without Authority or Warning
- Operating or Working at unsafe Speed
- Making safety devices In-operative
- Use of unsafe equipment or improper use of equipment
- Unsafe Loading
- Placing or Leaving Objects
- Mixing improper Packing
- Taking unsafe Position or Posture
- Working on equipment without taking proper precautions
- Distracting, Teasing or Startling
- Failure to use safe clothing or protective equipment

From operation point of view, other factors be also considered

i.e.:

- Shift Duties
- Reporting of duty in unfit condition
- Assistance from employees not on duty

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- Inspection of Grid Station Equipment
- Weather information
- Interference of animals
- Visitors
- Working of employees of other organizations
- Identification of operating equipment



PSC-6.3**General Provisions for Safety**

The general provisions of safety shall be provided by each licensee covering the followings:

- The provisions for workers /operators to object to doing work on safety grounds.
- The use & wearing of safety equipment & protective clothing.
- Physical fitness & personal conduct of the worker before and during on job
- Arrangement and procedure of job briefing before the work is started
- Requirements to safe guard the public and property when work in progress
- Requirements for housekeeping in a safe working in conditions
- Arrangements and requirements of Fire protection
- Requirements, arrangements and use of proper tools and plants for the proper and safe storage lifting and carrying of different types of material
- Procedure and reporting requirements of patrolling of lines
- Procedure for tree trimming
- List of common protective devices and equipment use for the safety purpose.

PSC-6.4**Safety Policy for Electrical Equipment & Materials from Design & Execution Point Of view**

Each Licensee shall establish the design section, which shall be responsible for complete detailed engineering design and execution of electrical equipment and materials from power safety point of view. All design aspects/design criteria shall be provided to NEPRA as & when required and complete record shall be maintained by each Licensee.

Detail regarding improvement in existing electrical protective equipment shall be clearly provided i.e.:

- Protective measures as per IEC or international engineering standards in 11KV Panels in order to diagnose the fault in case the live conductor falls on rocks or any dry surface and in result may cause damage to people or property.
- Protection of Transformers
- Protection of 11KV lines with protective devices
- Protection of cables against fires, as in some instances cable may become a carrier of fire.

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PSC-6.5

Safety Measures from Operation & Maintenance Point of View

Safety measures for operation & maintenance shall cover but not limited to the following:

- **General Safety Requirements**

- Access to and work in operational premises, underground chambers & confined spaces
- Working with vessels that contain oil or flammable liquids.
- Access to & work in fire protected areas.
- Climbing of Poles, towers & structures
- Access to high voltage apparatus and structures
- Arrangements for high voltage switching operations
- The use of voltage testing devices
- The procedure to follow when excavating near live cables.
- The use of mobile plant and equipment near overhead lines.

- **Safety Precautions for work on or near High Voltage Systems**

- This section includes the all-precautionary measures and procedures to be followed while working on or near any high voltage system;
- The general safety principles to follow to ensure safe working.
- The arrangements for insuring safe isolation of apparatus and conductors
- The methods to be used to discharge and earth high voltage equipment
- The procedure to follow when approaching live high voltage conductor and insulators supporting them.
- The procedure to follow for work in substation and switching substations containing exposed live high voltage conductors
- Permits to Work
- Sanctions for Tests
- Limitations of Access

For Permit to work (PTW), specimen shall be provided by each DISCO/NTDC in the safety manual covering the following but not limited to the following:

- Application of PTW
- Issuance of PTW

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- Receipt of PTW
- Clearance of PTW
- Cancellation of PTW

For sanction of test & the limited work certificate the following points must be considered:

- Preparation
- Issues and receipt
- Transfer
- Clearness and cancellation

Requirement: Each Licensee shall provide the PTWs with the minimum details as mentioned above.

C: Procedures for work on particular items of plant, Apparatus or Conductors

Each licensee shall cover operations which require procedures to be followed which are additional to the general ones.

- General safety precautions to be taken for use of cleaning solvents, Handling of toxic or hazardous materials, Glass fiber thermal insulation, Explosives, radio actives and radiations, High voltage testing, leak checking, pressure vessels/cylinders, underground man-holes.
- Procedures for safe working of remotely and automatically control equipment shall be established by each DISCO/NTDC after consultation with NPCC or RCC which ever case is applicable & shall be provided in power safety manual.
- With-drawable apparatus
- Bus-bars, bus-bar spouts and bus-bar connections of multiple panel /switchboards
- High voltage apparatus and plant operated by or containing compressed air with other gases or operated by hydraulic power
- Transformers
- High voltage static capacitors
- High voltage cables

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The type & classification of cables along with voltage rating shall be clearly defined by each DISCO/NTDC

- High voltage overhead lines
- single or multiple circuit, high voltage overhead lines, with all conductors' dead
- Double circuit, high voltage overhead line, with one circuit live
- High voltage regulator
- Industrial panels/grid end panels as per prevailing voltage levels
- DC station batteries
- Disconnect switches/isolators
- Instrument transformer (CTs, PTs, and CVTs)
- Insulating oils, oil tanks, SF6 gas and gas cylinders,

D: Safety Precautions for High Voltage Live Line work on High Voltage Over Head lines

It shall include:

- The authorization requirements for staff carrying out the operations
- The live line tools and equipment to be used and the arrangements for keeping them in good condition must be clearly defined such that:
- Complete package of T & P (hand tools and machine tools), extension ladder fiber, adjustable strain pole, conductive shoes, conductive sit (Socks, gloves, trousers, shirt etc.), torsion, nut, torsion ratchet wrench, strain link stick, hot-end suspension yoke, cotter key pusher, strain pole carrier, moisture eater, abrasive cleaning pad, hot-stick tester, hit-test insulator tester, generator 5 KW, live-line rope etc.
- The general safety precaution to follow

E: Safety Precautions for the Testing of High Voltage Systems

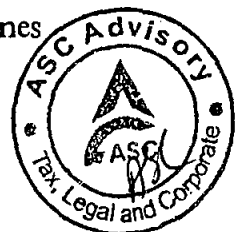
This shall consist of the followings:

- General precautions to take
- Work under a sanction for test
- The testing of high voltage apparatus

F: Safety Precautions and procedures applicable to Low Voltage Systems

- General requirements for work on dead low voltage apparatus and lines
- Additions precautions for work on dead low voltage cables

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- Additional precautions for work on dead low voltage overhead lines
- Precaution for work on live low voltage apparatus
- Precaution for work on live low voltage overhead lines
- Precaution for work on live low voltage cables
- Testing of low voltage apparatus
- Calibration of electrical testing equipment.

PSC-6.6

Safety for Power Plants

Each licensee shall cover the specific safety requirement for the power plant working environment and shall include but not limited to the followings;

- Boiler operation
- Boiler maintenance
- Turbo generator operation & maintenance
- Import plant auxiliaries
- Water plant treatment
- Workshop of the power plant
- SOPs in case of spillage in the plant & in case of fire accident.
- Work permits electrical maintenance section
- Works permit for maintenance section
- Works permit for instrument/control section

PSC-6.7

Safety Policy for Transportation

Each licensee shall cover the all procedures related to

- General Instructions
- SOPs for checking/maintenance
- Driving
- Parking
- Operation of trucks, trailers & forklift trucks
- SOPs, to be followed in case of accident.
- Speed limits inside the premises of NTDC/DISCO works/sites & on general

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- public roads/areas.
- Training of drivers
- Motivational methodologies for drivers.

PSC-6.8

First Aid Procedures

First aid procedures shall cover the procedures, guidelines, implementation strategies and complete data base & suggested measures for preventive action and shall include but not limited to the followings:

- General instructions
- Hemorrhage (bleeding) and including the measures for internal hemorrhage, nose bleeding
- Physical/electric shock
- And also the informative charts describing the effects with respect to current level, human body resistance and the other factors that affect the human body
- Sun stroke, head stroke
- Fainting
- Fractures (broken bones)
- Transportation/shifting of the victims
- Wounds
- Splinters or foreign substances in the body
- Animal/snake bites
- Burns (thermal, electrical & chemical)
- Eye injuries
- Sprains/strains,
- Bruises
- Frost bite
- Heimlich maneuvers

PSC-6.9

Resuscitation & Rescue Procedures

Resuscitation & rescue procedures shall include but not limited to the followings:

- General instructions
- Methods of pole top rescue
- Artificial respiration

Requirement: These shall be defined by each Licensee with detailed procedures and understandable diagrams/pictures and methodology for training of person to perform such activity.

PSC-6.10

Data Base of Power Safety and Operation and Maintenance Charts

Each licensee shall cover the complete information regarding operation and maintenance charts and these shall be readily accessible to all concerned. There shall be no confusion from tagging/marketing point of view for electrical equipment & materials.

In addition to this other charts i.e.

- Charts related to clearances form electrical equipment & material functioning point of view
- Safety signs/signals charts at required locations/places
- Exit signs
- Charts for safety instructions for visitors/contractors/others
- Charts for useful knots
- Charts for strengths & weight of material
- Charts for safe loads on different types of ropes
- Charts for safe working of cranes
- Operation and maintenance charts
- Fire extinguishers
- Road signs
- Warning signs
- Danger signs
- Charts for allowable factor of safety, clearances & other applicable data

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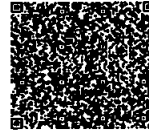
- Permit to works (PTWs)
- Charts for motivation of staff /persons
- Maintenance & inspection schedules
- Charts for conversion tables and
- others required as per standard engineering practices

These charts shall be understandable to workers/labor in Urdu also, in addition to English



E-STAMP

ID : PB-LHR-F21BB16157BC07C2
 Type : Low Denomination
 Amount : Rs 100/-



Description : AFFIDAVIT - 4
 Applicant : Quaid e Azam Business Park Sheikhpura through Ali Muazzam Syed[35202-8279686-3]
 S/O : Aslam Bahar Syed
 Address : Lahore
 Issue Date : 24-Oct-2022 4:18:53 PM
 Delisted On/Validity : 31-Oct-2022
 Amount in Words : One Hundred Rupees Only
 Reason : Affidavit
 Vendor Information : Asad Hussain | PB-LHR-434 | Sundar Road Mall

Sh.
SHAHZAD MIR
 ADVOCATE
 OATH COMMISSIONER
 LAHORE
ATTESTED

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نوٹ: یہ ٹرانزیکشن تاریخ اجرا سے سات دنوں تک کے لیے قابل استعمال ہے۔

AFFIDAVIT OF MR. ALI MUAZZAM SYED, CEO OF PUNJAB INDUSTRIAL ESTATE DEVELOPMENT AND MANAGEMENT COMPANY (PIEDMC) UNDER REGULATION 3(4)(g) OF NATIONAL ELECTRIC POWER REGULATORY AUTHORITY LICENSING (APPLICATION, MODIFICATION, EXTENSION AND CANCELLATION) PROCEDURE REGULATIONS, 2021

I hereby undertake that Punjab Industrial Estate Development and Management Company (PIEDMC) applied to NEPRA for grant of distribution license and electric power supply license under NEPRA licensing regulation for the following industrial estates:

- Sundar Industrial Estate on September 29, 2022.
- Bhalwal Industrial Estate on June 30, 2022.
- Rahim Yar Khan Industrial Estate on July 29, 2022.
- Quaid-e-Azam Business Park on November 22, 2016.
- Vehari Industrial Estate on June 30, 2022.

I also undertake that the above mentioned Quaid-e-Azam Business Park application had been submitted to NEPRA but were returned by NEPRA in light of judgement dated July 8, 2021 of the Islamabad High Court due to which NEPRA had decided not to entertain applications for grant of distribution/supplier licenses till the expiry of the existing distribution licenses of DISCOs and notification of the rules and regulations as per NEPRA Amended Act, 2018.

The other abovementioned applications are still under review by NEPRA.

Therefore, I hereby undertake that PIEDMC has not been granted any other license under the act.

I, the above named deponent, do hereby solemnly affirm and declare on oath that the contents of this application and affidavit are true and correct to the best of the deponent's knowledge and belief and nothing has been concealed therein.

VERIFICATION:

Verified on oath at Lahore on this 25 day of October, 2022 that the contents of the above affidavit are true and correct to the best of the deponent's knowledge and belief and nothing has been concealed therein.

(Company Seal)



DEPONENT



DEPONENT

SPM/1
 01/10/2022
 CONSULTANTS



PUNJAB INDUSTRIAL ESTATES DEVELOPMENT AND MANAGEMENT COMPANY

A Company setup under Section 42 of the Companies Ordinance, 1984 (now Companies Act, 2017)



October 24, 2022

Undertaking

Board Resolution for Seeking of License

We hereby undertake that on the 134th meeting of the Board of Directors of Punjab Industrial Estate Development and Management Company (PIEDMC) dated May 4, 2019, permission was granted for submission of application to NEPRA for issuance of electric power supplier license for all industrial estates under the preview of PIEDMC. We also undertake that this information is true to the best of our knowledge.

Chief Executive Officer



SAMU
SAHIC
CONSULTANTS



PUNJAB INDUSTRIAL ESTATES DEVELOPMENT AND MANAGEMENT COMPANY

16.3 Approval of the PIEDMC Board for obtaining electricity distribution license from NEPRA for all industrial estates of PIEDMC.

CEO presented the agenda. He informed the Board that PIEDMC intends to apply for getting distribution license from NEPRA for electricity distribution within all the Industrial Estates of PIEDMC. Therefore, permission is solicited to submit the application to NEPRA and also allow CEO, PIEDMC to sign and complete the formalities with NEPRA in this regard. This is the mandatory requirement for submission of application.

Recommendation

BOD is requested to grant permission for submission of application to NEPRA for issuance of electricity distribution license in all the industrial estates under PIEDMC and CEO, PIEDMC be allowed to sign the documents and complete the formalities with NEPRA.

After discussing the agenda at length and giving due deliberation following resolution was passed:

Decision:

Resolution (104-16-3)


RESOLVED THAT, "permission be and is hereby granted for submission of application to NEPRA and issuance of electricity distribution license for all the industrial estates under preview of PIEDMC".

FURTHER RESOLVED THAT, "CEO-PIEDMC be and is hereby authorized and empowered to file and execute documents, contracts and to complete all related formalities on behalf of the Company".

Action by: General Manager (Technical)

16.4 To consider and approve the award of contract for General Consultancy for Power purchase from Private Power Producers (PPPs).

Chief Engineer Electrical presented the agenda. He informed the Board that in order to resolve the problem of energy crises in PIEDMC Projects, Power committee was constituted by the Chairman PIEDMC in 94th BOD meeting with the following members:


Company Secretary


Chairman

ATTESTED TO BE TRUE COPY

PUNJAB INDUSTRIAL ESTATES
DEVELOPMENT AND MANAGEMENT COMPANY
OWNED BY: GOVT. OF PUNJAB

Company Secretary

SAHAD
CONSULTANTS

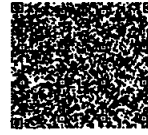
E-STAMP



ID : PB-LHR-8E42C6853B2B7D29

Type : Low Denomination

Amount : Rs 100/-



Description : AFFIDAVIT - 4

Applicant : Quid e Azam Business Park Shekhupura through Ali Muazzam Syed[35202-8279686-3]

S/O : Aslam Bahar Syed

Address : Lahore

Issue Date : 24-Oct-2022 4:20:11 PM

Delisted On/Validity : 31-Oct-2022

Amount in Words : One Hundred Rupees Only

Reason : Affidavit

Vendor Information : Asad Hussain | PB-LHR-434 | Sundar Road Mall

SHAHZAD MIR
ADVOCATE
OATH COMMISSIONER
LAHORE
ATTESTED

نوٹ: یہ ٹرانزیکشن تاریخ اجرا سے سات دنوں تک کے لیے قابل استعمال ہے۔

AFFIDAVIT OF MR. ALI MUAZZAM SYED, CEO, ON BEHALF OF PUNJAB INDUSTRIAL ESTATE DEVELOPMENT AND MANAGEMENT COMPANY (PIEDMC) UNDER REGULATION 3(7) OF NATIONAL ELECTRIC POWER REGULATORY AUTHORITY LICENSING (APPLICATION, MODIFICATION, EXTENSION AND CANCELLATION) PROCEDURE REGULATIONS, 2021 SUPPORTING THE APPLICATION

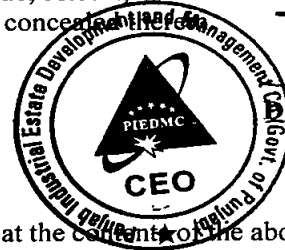
I, Ali Muazzam Syed, CEO, being the duly authorized representative of Punjab Industrial Estate Development and Management Company (PIEDMC) by virtue of BOARD RESOLUTION dated May 4, 2019, hereby apply to the National Electric Power Regulatory Authority for the grant of electric power supplier license to Punjab Industrial Estate Development and Management Company (PIEDMC) pursuant to section 23E of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.

I hereby certify that the documents-in-support attached with this application are prepared and submitted in conformity with the provisions of the National Electric Power Regulatory Authority Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021, and undertake to abide by the terms and provisions of the above-said regulations. I further undertake and confirm that the information provided in the attached documents-in-support is true and correct to the best of my knowledge and no material omission has been made.

A Pay Order in the sum of Rupees 2,312,185/- being the license application fee calculated in accordance with Schedule II to the National Electric Power Regulatory Authority Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021, is also attached herewith.

Date:

I, the above named deponent, do hereby solemnly affirm and declare on oath that the contents of this application along with the documents and information submitted are true, correct, authentic and accurate to the best of the deponent's knowledge and belief and nothing has been concealed therefrom.



DEPONENT

VERIFICATION:

Verified on oath at Lahore on this the 25 day of October, 2022 that the contents of the above affidavit are true and correct to the best of the deponent's knowledge and belief and nothing has been concealed therein.

(Company Seal)



DEPONENT

SAMD
SAHIB
CONSULTANTS

October 24, 2022

Undertaking

We hereby undertake that Punjab Industrial Estate Development & Management Company accepts NEPRA's power under all applicable NEPRA laws to amend or grant dispensation in relation to the electric power supplier license.



Chief Executive Officer



SAMD
CONSULTANTS