



No. CEO/STDC/NEPRA/2015(16)
**SINDH TRANSMISSION AND
DISPATCH COMPANY (PVT.) LTD**
GOVERNMENT OF SINDH
(3rd Floor State Life Building-3
Dr. Zia-uddin Ahmed Road Karachi.)
Ph: 021-99207129

THE CHAIRMAN,
National Electric Power Regulatory Authority,
Islamabad.
Pakistan.

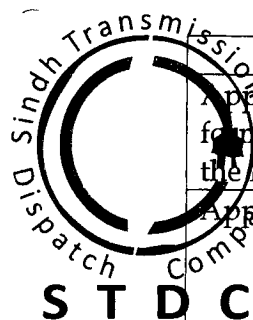
Karachi, dated: July' 14, 2015

Dear Sir,

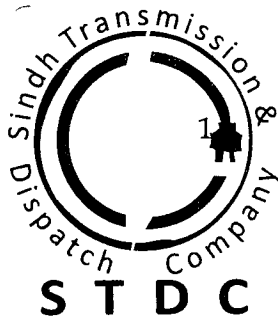
**GRANT OF SPECIAL PURPOSE TRANSMISSION LICENSE TO SINDH
TRANSMISSION DISPATCH COMPANY (PVT.) LIMITED
(HEREINAFTER THE "STDC") TO OPERATE AS SPECIAL PURPOSE
TRANSMISSION LINE COMPANY**

Reference the captioned matter, please note that STDC being a wholly owned company of the Government of Sindh intends to acquire a Special Purpose Transmission License under section 19 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 from NEPRA to run the business of Special Purpose Transmission of Electricity. Initially, STDC is considering a power dispatch line of approximately 85 km from Sindh Nooriabad Power Company (Pvt.) Limited (SNPCL) and Sindh Nooriabad Power Company (Pvt.) Limited Phase-II SNPCL, to KDA Scheme 33 Grid Station of K-Electric at Karachi. Power generation is expected in early of 2016. As the matter is of utmost urgency, you are hereby requested to issue the required license on urgent basis which will be the cause of comfort to the general public in the dire need of electricity.

For the above purposes, STDC hereby applies to you for issuance of license and hereby submit you the required information/documents as mentioned in the National Electric Power Regulatory Authority Licensing (Application & Modification Procedure) Regulations, 1999 (the "Regulations"), as follows:

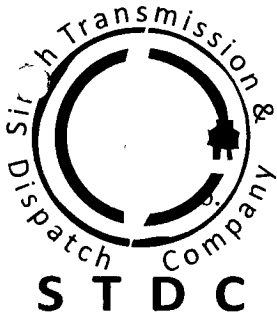


Relevant Description	Status
Application for License on the format as provided in Schedule 'I' of the Regulations	Attached herewith as Annexure -A
Application Fee	Pay Order for an amount of Rs. 209,208/- (Rupees Two lac, nine thousand, two hundred and eight Only) is attached herewith as Annexure -B
Certificate of Incorporation of STDC (CTC issued by SECP)	Attached herewith as Annexure -C
Memorandum of Association and Articles of Association of STDC (CTC issued by SECP)	Attached herewith as Annexure -D
In case STDC has submitted the annual return required to be submitted to the registrar of companies pursuant to section 156 of the Companies Ordinance, 1984, the last filed annual return	As STDC was incorporated on 17-01-2015 in SECP and has yet not completed one year, therefore, annual return cannot be filed. However, copy of FBR NTN is attached as Annexure-E.
CV's of the STDC's Senior Management	Attached herewith as Annexure -F
CV's of the STDC's technical staff	Yet not hired. Shall be submitted in due course of time.
CV's of the STDC's profession staff	Yet not hired. Shall be submitted in due course of time.
Evidence of the availability of adequate financial and technical resources for the purposes of the special purpose transmission business	The competent Authority has allocated Rs 1300 million for the transmission line construction project. Rs 300 million has already deposited in STDC account.
The type, technology, model, technical details and design of the facilities proposed to be acquired, constructed, developed or installed	Attached herewith as Annexure -G.
A territorial map of the service area proposed to be covered	Attached herewith as Annexure -H.
Particulars in respect of the availability, sources, rates and evidence of commitments from the sources of electric power	The transmission line is special purpose meant for evacuating power from SNPCL and SNPCL phase -I to K-Electric KDA - 33 Grid station. Wheeling agreement between SNPCL, STDC and K-Electric shall be submitted after finalization.



The Government of Sindh has established "Sindh Transmission and Dispatch Company (STDC)" to cater off national grid power evacuation from above mentioned power generation projects. Initially, the STDC is considering a power transmission line of approximately 75 km from M/s Sindh Nooriabad Power Company (Pvt.) Limited (SNPCL) and M/s Sindh Nooriabad Power Company (Pvt.) Limited Phase-II SNPCL, to KDA Scheme 33 Grid Station of K-Electric at Karachi. Power generation is expected in early of 2016. The objects of company are elaborated in its Memorandum of Association.

2. The bid for construction of said 132 kV Transmission line was called through NIT for Survey, Design, Tower Staking, Foundations, Erection, Stringing, testing and Commissioning of Double Circuit 132 kV transmission line. After going through the bidding process and Technical/Financial evaluation of the bids from the participating bidders, M/s Technoman Kinetics (Pvt.) Ltd was qualified as the successful bidder.
3. Sindh Transmission and Dispatch Company believe in environment friendly workings, therefore ESIA has been bundled in bidding document to bind the contractor to conduct ESIA prior to execution of project.
4. The STDC is in the process of appointing the qualified and experienced management Staff which includes regular Chief Executive Officer, Senior General Manager (Technical), General Manager(Technical), General Manager (Finance). All the positions advertised requires experienced and able Engineers and officers having capability and related experinece necessary to operate a Transmission Line Company. Job advertisement attached herewith as annexure -I.
5. The CEO and Senior General Manager appointed by the competent authority are fully versed with engineering practices as evident from their past experience in K-Electric which is engaged simultaneously in Generation, Transmission and Distribution of Electric Power to one of the largest metropolis of the World for the last 100 years. The CEO had been worked in highly technical environment in various departments of K-Electric and is fully aware of the conditions of the License. The CV's of both these senior level Engineers are attached herewith.

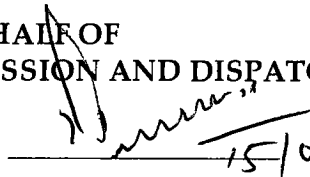


Sindh Transmission and Dispatch Company have been incorporated with Security Exchange Commission of Pakistan under Companies Ordinance 1994 to with seed money amounting to Rs. 100 million. The Government of Sindh has approved to provide additional funds amounting to Rs. 1300 million to carry out construction of Transmission Line from Nooriabad to Karachi Electric Grid Station.

7. A proper load dispatch center will be set up for system synchronous operation which will be run by qualified and experienced Engineers and staff having similar experience in the local and/or foreign Industry complying to the code/protocol synchronous operation in coordination with other licensees of Pakistan.
8. A Senior General Manager (Tech) has already hired for carrying out the Technical duties as per Engineering Standards.

FOR AND ON BEHALF OF
SINDH TRANSMISSION AND DISPATCH COMPANY (PVT.) LTD

Signature:


15/07/2015

Chief Executive Officer

Name:

Hassan Raza Abbasi

Sindh Transmission & Dispatch
Company (Pvt) Ltd

Designation:

Chief Executive Officer

CNIC No.:

42201-7267925-3

This payment order requires endorsement



NBP

National Bank of Pakistan

NEW SINDH SECRETARIAT, BRANCH. KARACHI.

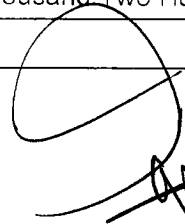
EXACTLY Rs:209,208.00

P.O. No. NPO/A 2045593

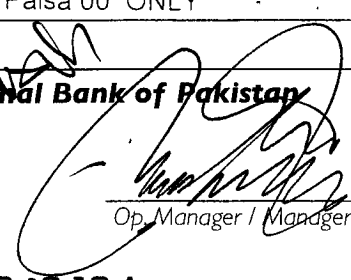
July 15, 2015

Pay NATIONAL ELECTRIC POWER REGULATORY AUTHORITY(NEPRA) or Order
Rupees Two Hundred Nine Thousand Two Hundred Eight and Paise 00 ONLY

Rs. ***209,208.00


for **National Bank of Pakistan**

Officer



Op. Manager / Manager

⑈ 2045593⑈0701053⑈0000000000⑈020⑈

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SCHEDULE I
(REGULATION 3(1))
FORM OF APPLICATION

The Registrar,
National Electric Power Regulatory Authority.

SUBJECT: Application for a SPECIAL PURPOSE TRANSMISSION License

I, Hassan Raza Abbasi, Chief Executive Officer (CEO) being the duly authorized representative of SINDH TRANSMISSION DISPATCH COMPANY (STDC) by virtue of [BOARD RESOLUTION/POWER ATTORNEY] dated 10-2-2015 hereby apply to the National Electric Power Regulatory Authority for the grant of a SPECIAL PURPOSE TRANSMISSION LICENSE to the SINDH TRANSMISSION DISPATCH COMPANY Pvt. Ltd (STDC) pursuant to section 3(1) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.

I 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 and Modification Procedure) Regulations, 1999, 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 belief.

A Bank Draft # 2045593 dated 15-07-2015 in the sum of Rupees 209,208/-, being the non-refundable license application fee calculated in accordance with Schedule II to the National Electric Power Regulatory Authority Licensing (Application and Modification Procedure) Regulations, 1999, is also attached herewith.

Date: 15-07-2015

Hassan Raza Abbasi
15/07/2015

HASSAN RAZA ABBASI
CHIEF EXECUTIVE OFFICER
SINDH TRANSMISSION DISPATCH COMPANY



Chief Executive Officer
Sindh Transmission & Dispatch
Company (Pvt) Ltd



A006093

SECURITIES AND EXCHANGE COMMISSION OF PAKISTAN

COMPANY REGISTRATION OFFICE, KARACHI

CERTIFICATE OF INCORPORATION

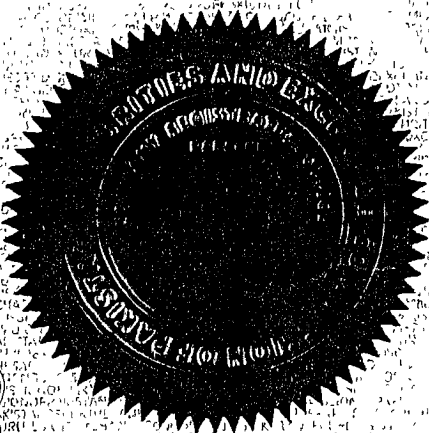
[Under Section 32 of the Companies Ordinance, 1984 (XLVII of 1984)]

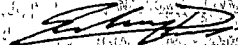
Corporate Universal Identification No. 0091407

I hereby certify that SINDH TRANSMISSION & DISPATCH COMPANY
(PVT.) LIMITED is this day incorporated under the Companies Ordinance, 1984
(XLVII of 1984) and that the company is limited by shares.

Given under my hand at Karachi this Seventh day of January, Two Thousand
and Fifteen.

Incorporation fee Rs. 14,000/- only




(Sidney Custodio Pereira)
Joint Registrar of Companies
Karachi

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THE COMPANIES ORDINANCE, 1984
(COMPANY LIMITED BY SHARES)

Memorandum of Association

of

SINDH TRANSMISSION AND DISPATCH COMPANY (PVT)
LIMITED

- I. The name of the Company is "Sindh Transmission and Dispatch Company (Pvt) Limited".
- II. The Registered Office of the Company will be situated in the Province of Sindh.
- III. The objects for which the Company is established are all or any of the following:-
 1. To acquire, establish, construct, take over, erect, lay, operate, run, manage, hire, lease, buy, sell, maintain, enlarge, alter, work and use, renovate, modernize, electrical transmission lines and/or network through extra high voltage, high voltage, medium voltage and low voltage lines and associated sub-stations including distribution centers, cable wires, accumulator plants, motors, apparatus, computers and materials connected with transmission, distribution, ancillary services, supply of electrical energy, telecommunication and tele-metering equipment.
 2. To undertake, for and on behalf of others the erection, operation, maintenance, management of extra high voltage, high voltage, medium voltage and low voltage lines and associated sub-stations, equipment, apparatus, cables and wires.
 3. To carry on the business of purchasing, selling, importing, exporting, wheeling, system operation, trading of power, including finalization of tariff, billing and collection thereof. To execute Power Purchase Agreements with generating companies, Federal and provincial generating stations, regional Electricity Boards, Utilities, Companies and persons.



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4. To execute agreements for sale of power to distribution companies and other persons and to coordinate, aid and advise on the activities of other companies and concerns, including subsidiaries, associates and affiliates engaged in generation, transmission, distribution, supply and wheeling of electrical energy.
 5. To schedule and dispatch generation of all units connected to the Provincial power system including the Federally owned generating stations, in respect of the share assigned to the province and electricity purchased from other provincial undertakings.
 6. To study, investigate, collect information and data, review operations, plan, research, design and prepare project reports, diagnose operational difficulties and weaknesses, and advise on the remedial measures to improve and modernize existing EHV, HV, MV, LV lines and sub stations. To forecast load and plan generations in consultation with distribution, transmission or/and generation companies. To tender and finalize contracts for purchase of power from new generation plants, including IPPs.
 7. To arrange, secure and make available to its subsidiaries and others concerned for the organizations, such facilities, resources, inputs and services as may be required. To obtain charters, Concession et al.



To enter into any arrangement with the Government of Pakistan or any other Government or any local or Provincial Government or with Authorities, national, local, municipal or otherwise or with any person for the purpose of directly or indirectly carrying out the objects or furthering the interest of the Company or its members and to obtain from any such Government, Provincial Authority or person any charters,

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subsidies, loans, indemnities, grants, contracts, decrees, rights, sanctions, privileges, licenses or concessions whatsoever, (whether statutory or otherwise) which the Company may think desirable to obtain and carry out, exercise and comply with the same.

9. To directly or indirectly carry on all or any of the businesses of generating, purchasing, importing, transmitting, transforming, converting, distributing, supplying, exporting and dealing in electricity and all other forms of energy and products or services associated therewith and of promoting the conservation and efficient use of electricity and to perform all other acts which are necessary or incidental to the business of electricity generation, transmission, distribution and supply.

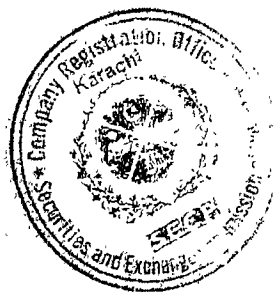
10. To directly or indirectly carry on the business of works and full set of services required within the electricity supply industry including but not limited to environment and property services, institutional reform and development, strategic planning, power systems analysis, power quality, project feasibility development, detailed design and construction supervision for networks of provincial/national scale and for all system voltages (kV) to interact with power utilities provision of environmental and engineering services for power transmission and distribution (T&D) infrastructure and to do all such acts, deeds or things as would be required for effect fulfillment of the said objective.



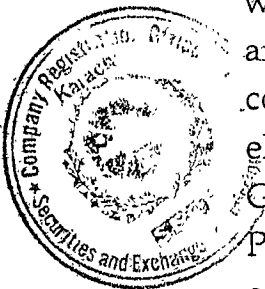
11. To establish or to carry on the business of acquiring, establishing, constructing, commissioning, equipping, setting up, using, managing, operating and maintaining Thermal, Hydro, Nuclear and all kinds of conventional and non-conventional Power Plants, power grid station, transforming, switching, conversion, and transmission facilities, power transmission systems, Power systems, cables, overhead lines, sub-stations, switching stations, tunnels, cable bridges, link

boxes, heat pumps, plant and equipment for combined heat and power schemes, offices, computer centers, shops, dispensing machines for pre-payment cards and other devices, showrooms, depots, factories, workshops, plants, printing facilities, warehouses and other storage facilities generation stations based on conventional / non-conventional resources for evacuation, generation, transmission and distribution of power through establishing or using station, tie-lines sub-stations and transmission lines on commercial basis including but not limited to build, own and transfer (BOT), built own and operate (BOO) and/or build, own lease and transfer (BOLT) and/or build, own, operate and transfer (BOOT) basis and to carry on the business of acquiring, operating, managing and maintaining power transmission system, power generation stations, tie-lines, sub-stations and transmission lines, either newly set up or acquired from Provincial Electricity Boards, Power Utilities Generating Companies, Transmission Companies, Distribution Companies, Provincial Governments, Licensees, Statutory Bodies, other organizations and bulk consumers of power and for any or all of the aforesaid purposes, to do trading and all the necessary or ancillary activities as may be considered necessary or beneficial or desirable.

12. To participate and undertake work on transmission and distribution analysis and network planning; Power generation systems analysis; Substation and transmission line design; -- Power system protection; Communications; Supervisory Control and Data Acquisition (SCADA), metering and energy management systems; Load dispatch centers; High voltage underground cables; Transmission and substation siting and land planning, Sub-soil investigation and earthing systems System efficiency and loss reduction programs; -- Construction supervision; Commissioning; Training and technology transfer.



13. To provide turnkey services covering studies and engineering of all components of power transmission grid, including AC and DC substations, training in these fields as well as in network maintenance and operations undertake studies, detailed engineering and construction supervision kilometers of power transmission lines and a great number of transformer and converter stations with all voltages kVs in alternating current and in direct current.
14. To take over, acquire, purchase, take on lease exchange or otherwise hold any Transmission, Generation and Distribution, concessions of whatever nature or extent and to use, exercise, deal with, sublease or otherwise turn to account any such rights, licenses, grants, claims options, privileges so acquired in any way or manner the company deems fit.
15. To carry on the business, to invest the capital of the Company in the interest in property, real and personal and dispose of the same in the manner and at the time the Company thinks opportune to secure profit.
16. To invest in, acquire, hold, sell or otherwise deal in, directly or indirectly, or through its subsidiaries, associate companies, consortium, partnership, joint ventures, special purpose vehicle or otherwise, any shares, stocks, debentures, debenture stock, warrants, any other financial instruments, bonds obligations and Securities issued or guaranteed by any company constituted or carrying on the business in Pakistan and Sindh or elsewhere or Government, Provincial Government, Semi-Government, Semi Government Authorities, local Authorities, Public Sector Undertakings, Financial Institutions, Public Body, any other persons or otherwise, and/or to carry on and undertake the business of finance, making loans or advances, investment, merchant bankers, underwriters.



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17. To employ experts, to investigate and examine into the condition, prospects value character, and circumstances of any business and maintain agencies, branch places and local registers and procure the company to be registered and to carry on business in any part of the world.

18. To purchase, take on lease or hire exchange, hire or otherwise acquire any movable property and any rights or privileges which the Company may think necessary or convenient for purpose of its business or which may enhance the value of any other property of the Company and in particular land and building, easements, machinery, plant, stock in trade and goodwill.

19. To amalgamate, enter into partnership or into any arrangements.

20. To improve, manage, develop, grant rights or privileges in respect of or otherwise deal with all or any of the property and rights of the Company.

21. For the purposes of achieving the above objects, the company is authorized:-

- i) To borrow or raise money by means of local and foreign currency loans from scheduled banks, industrial banks and financial institutions including HBFC and other specialized institutions or non-bank finance companies for the purpose of purchase, manufacture, market, supply, export and import of machinery, construction activities and improvements, repair and renovations of buildings, warehouses, factories, sheds, offices, hospitals, ports, parks, clubs, entertainment and recreation areas, industrial zones, bridges, flyovers and sub-ways, roads, highways and motorways, high rise residential and commercial complexes, residential towns, building and for the purpose of working capital or for any other purpose.



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ii) To arrange money by issue of debentures, debenture stock, perpetual debentures, preference shares and to mortgage or charge the whole or part of the property or assets of the company, present or future, by special power or to transfer or convey the same absolutely or in part, or to do any other thing which may seem expedient and to purchase, redeem or discharge such securities.

iii) To purchase, import raw materials, machinery, equipments and allied items required in connection thereto in any manner the company may think fit.

iv) To purchase, take on lease or in exchange, hire, apply for or otherwise acquire and hold for any interest, any rights, privileges, lands, building, easements, trademarks, patents, patent rights, copyrights, licenses, machinery, plants, stock-in-trade and any movable and immovable property of any kind necessary or convenient for the purposes of or in connection with the Company's business or any branch or department thereof and to use, exercise, develop, grant licenses in respect of or otherwise turn to account any property, rights and information so acquired, subject to any permission required under the law.

v) To open accounts with any Bank or Banks and to draw, make, accept, endorse, execute, issue, negotiate and discount cheques, promissory notes, bills of exchange, bills of lading, warrants, deposit notes, debentures, letter of credit and other negotiable instruments and securities.

vi) To own, establish or have and maintain shops, branches and agencies all over Pakistan or elsewhere of the products of the company.

vii) To open accounts with any Bank or Banks and to draw, make, accept, endorse, execute, issue, negotiate and discount cheques, promissory notes, bills of exchange, bills of lading, warrants, deposit notes, debentures, letter of credit and other negotiable instruments and



securities.

may be acquired by concession, grant, purchase, barter, lease, gift absolutely or conditionally and either singly or jointly with others any lands, buildings, machinery, plants, equipments, privileges, rights, licences, trademarks, patents, and other movable and immovable property of any description which the Company may deem necessary or which may seem to the Company capable of being turned to account, subject to any permission as required under the law.

- ix) To invest surplus money of the Company in shares, stocks or securities of any company, debentures, debenture stocks or in any investments, short term and long term participation, term finance certificates or any other government securities in such manner as may from time to time be decided by the directors, without indulging non banking finance business, banking business or an investment company or any other any lawful business.
- x) To guarantee the performance of contracts, agreements, obligations or discharge of any debt of the company or on behalf of any other company or person subject to the provisions of section 195 of the Companies Ordinance, 1984 in relation to the payment of any financial facility including but not limited to loans, advances, letters of credit or other obligations through creation of any or all types of mortgages, charges, pledges, hypothecations, on execution of the usual banking documents or instruments or otherwise encumbrance on any or all of the movable and immovable properties of the company, either present or future or both and issuance of any other securities or sureties by any mean in favour of banks, Non-Banking Finance Companies (NBFCs) or any financial institutions and to borrow money for purpose of the company on such terms and conditions as may be considered proper.



- xi) To purchase, hold and get redeemed, debentures, bonds of any company, financial institution or any Government institutions.
- xii) To enter into arrangements with the government or authority (central, provincial, local or otherwise) or any corporation or company or persons that may seem desirable to the Company or any of them and to obtain from any such government, authority, corporation, company or person any charters, contracts, rights, privileges and commission which the Company may think desirable and to carry on exercise and comply with any such charters, contracts, decrees, rights, privileges and concessions.
- xiii) To act as representatives, for any person, firm or company and to undertake and perform sub-contracts, and also act in the business of the Company through or by means of agents, sub-contractors and to do all or any of the things mentioned herein in any part of the world and either alone or in collaboration with others and by or through agents, sub-contractors or otherwise.
- xiv) To sell, transfer, mortgage, pledge, exchange or otherwise dispose of the whole or any part of the property or the undertaking of the Company, either together or in portions for such consideration as the Company may think fit and in particular, for shares, debenture-stock or securities of any Company purchasing the same or to any other legal entity or person, by other means, permissible under the law.
- xv) To conduct, encourage, promote, support, arrange and organize seminars, symposiums, exhibitions, fairs, conferences, lectures, demonstrations and other similar activities for promotion of sales or other business interests of any person, companies, firms, individuals, associations, local or government bodies, foreign governments, and international agencies, in Pakistan and any part of world for and on behalf of customers and for that purpose to



carry out market surveys, researches, training programs and other activities.

- xvi) To carry out joint venture agreements with other companies or countries within the scope of the objects of the company.
- xvii) To make known and give publicity to the business and products of the company by means the company may think fit.
- xviii) To pay all costs, charges and expenses, if any, incidental to the promotion, formation, registration and establishment of the company; To go in for, buy or otherwise acquire any patent design, copyright, license, concession, convenience, innovation, invention, trademarks, rights, privileges, plants, tools or machinery and the like in Pakistan or elsewhere, which may for the time being appear to be useful or valuable for adding to the efficiency or productivity of the Company's work or business, as permissible under the law.
- xix) To establish, promote or assist in establishing or promoting and subscribe to or become a member of any other company, association or club whose objects are similar or in part similar to the objects of this Company or the establishment or promotion of which may be beneficial to the Company, as permissible under the law.
- xx) To give any servant or employee of the Company commission on the sale of the products and for that purpose to enter into any agreement or scheme of arrangement as the Company may deem fit and to get any servant or employee of the Company insured against risk of accident in the course of their employment.
- xxi) To establish and support or aid in the establishment and support of associations, institutions, funds and conveniences calculated to benefit the directors



employees, ex-employees of the Company or any dependent thereof and to grant pensions, gratuities, allowances, relief and payments in any manner calculated to benefit the To apply for and obtain necessary consents, permissions and licenses from any Federal Government, Provincial Government, Local and other Authorities for enabling the Company to carry on any of its objects into effect as and when required by law.

- xxii) To cause the Company to be registered or recognized in any foreign country and carry on its business activities in any part of the world.
- xxiii) To do and perform all other acts and things as are incidental or conducive to the attainment of the objects of the company;

22. It is, hereby, undertaken that the Company shall not engage in banking business or Forex, illegal brokerage, or any business of investment company or non-banking finance company or insurance or leasing or business of managing agency or in any unlawful business and that nothing contained in the object clauses shall be so construed to entitle it to engage in such business directly or indirectly and the Company shall not launch multi-level marketing (MLM), *Pyramid* and *Ponzi* schemes.



23. Notwithstanding anything stated in any object clause, the company shall obtain such other approval or license from Competent Authority, as maybe required under any law or the time being in force, to undertake a particular business.

IV. The liability of the members is limited.

V. The authorized capital of the company is Rs. 1,000,000/- (Rupees One million only) divided into 100,000 ordinary shares of Rs. 10/- each with power to enhance, reduce or consolidate the share capital and to divide the shares of the company into different classes and kinds subject to the provisions of the Companies Ordinance, 1984.

Memo-andum

We the several persons whose names and addresses are subscribed are desirous of formed into a company in pursuance of the Article of Association and we respectively agree to take the number of shares in the capital of the Company Set opposite to our respective names:

Name and surname (present & former) in full (in Block Letters)	CNIC No. (in case of foreigner, Passport No)	Father's/ Husband's Name in full	Nationality with any former Nationality	Occupation	Residential Address in full	Number of shares taken by each subscriber	Signatures
GOVERNMENT OF SINDH Through MUJTABA SHAHNEEL	N/A	N/A	N/A	N/A	7th Floor, Lakson Square Building No. 3, Opp Kaachi Press Club, Karachi	99,996 (Ninety Nine thousand nine hundred & ninety six shares)	<i>Mujtaba</i>
MUJTABA SHAHNEEL	42401-073-1409-1	MUDABBIR HUSSAIN	PAKISTANI	GOVT. SERVANT	E-108/1 Block F North Nazimabad Karachi	1 (One Share)	<i>Mujtaba</i>
HASAN RAZA ABBASI	42201-7267925-3	ALLAH BUKHSH	Pakistani	GOVT. SERVANT	D-14 Block 13-A Gulshan Iqbal, Hassan Square Block 1, Karachi	1 (One Share)	<i>Hasan</i>
SHAHNAWAZ FARHAN KHARRO	41304-4607327-1	ALI NAWAZ KHARRO	Pakistani	GOVT. SERVANT	463/H Hussainabad Guddu, Latifabad, Hyderabad	1 (One Share)	<i>Farhan</i>
ALI SIBTAIN	42301-4193430-3	SYED MUHAMMAD SIBTAIN	Pakistani	GOVT. SERVANT	Flat No. 55 - B Askari 3, School Road Cantt Karachi	1 (One Share)	<i>Ali</i>

Total = 100,000/-
(In words: One hundred thousand shares)

Dated: 26 Dec 2014

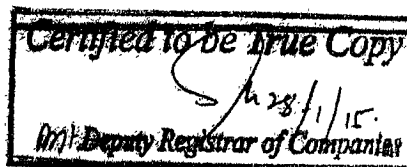
Witness:

Taha Noman Khan
S/O Muhammad Akram Khan
42201-5547571-5
A-63 Block B Kazimabad
Model Colony, Karachi



Serial No
Name of Company
Brief Description of the business
Date of Registration

Joint Registrar of Companies
Company Registration Office,
Karachi



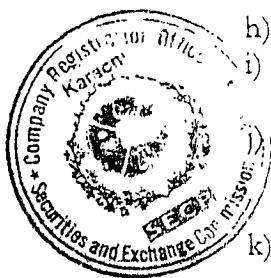
THE COMPANIES ORDINANCE, 1984
(PRIVATE COMPANY LIMITED BY SHARES)
ARTICLES OF ASSOCIATION

SINDH TRANSMISSION & DISPATCH COMPANY (PVT) LIMITED
PREFACE

The regulations contained in Table A of the First Schedule of the Companies Ordinance, 1984 shall apply to this Company (so far as these regulations are applicable to Private Companies) except as the same are modified, altered, repeated or added to by these Articles.

DEFINITIONS AND INTERPRETATIONS

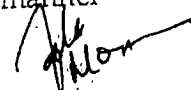
2. In these Presents unless there be something in the subject or context inconsistent therewith, words signifying the singular number only, shall include the plural and Vice Versa and words signifying males only shall extend to and include females and words signifying persons shall apply mutates mutandis to bodies corporate.
 - a) "The Company" means "SINDH TRANSMISSION & DISPATCH COMPANY (PVT) LIMITED"
 - b) "The Office" means the "registered office of the Company for the time being".
 - c) "Section" means "Section of the Ordinance".
 - d) "Ordinance" means the Companies Ordinance, 1984"
 - e) "Month and year" shall mean "the English Calendar month and English calendar year respectively".
 - f) "The Register" means "the register of members to be kept pursuant to Section 147 of the Companies Ordinance, 1984".
 - g) "In writing or written" includes printed, lithographed and typewritten or other modes of representing words in visible and legible form.
 - h) "Dividend" includes bonus shares.
 - i) "Special Resolution" shall have the meaning assigned thereto by section 2(36) of the Ordinance.
 - j) "Capital" shall mean the Capital of the Company for the time being raised or authorized to be raised for the purpose of the Company.
 - k) "Shares" shall mean the shares in the capital of the Company for the time being.
 - l) "These Present" shall mean the Memorandum of Association of the Company and these Articles and supplementary, substituted or amended Articles for the time being in force.
 - m) "The Seal" in relation to a Company means the Common Seal of the Company.



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PRIVATE COMPANY

The Company is a Private Company within the meaning of Section 250 of the Companies Ordinance, 1984, and accordingly:

- a) No invitation shall be issued to the public to subscribe for any shares, debenture or debentures stock of the Company.
 - b) The number of the members of the Company (exclusive of the persons in employment of the Company) shall be limited to 50 provided that for the purpose of this provision where two or more persons hold one or more shares jointly they shall be treated as a single member, and
 - c) The right of transfer of shares is prohibited in the manner provided hereunder.
- one hundred* 
4. The authorized capital of the Company is Rs.1,000,000/- (Rupees One Million Only) divided into 100,000 (Ten Thousand) Ordinary Shares of Rs.10/- each with powers to increase, reduce, consolidate, sub-divide, re-organized or divide the share capital of the Company into several classes in accordance with SHARES
 5. Subject to the provisions of the Ordinance, the shares shall be under the control of the Board of Directors who may allot or otherwise dispose of the same to such person, firms or Corporations, on such terms and conditions and for such considerations and at such times as may be thought fit.
 6. The shares in the Capital of the Company may be allotted or issued in payment or part payment of any land, building, machinery, or goods supplied or any services rendered to the Company in promotion and establishment thereof or in conduct of its business any share so allotted may be issued as fully paid up and not otherwise.
 7. If a share certificate is defaced, lost or destroyed, it may be renewed on payment of such fee, and on such terms, as to evidence and indemnity and payment of expenses incurred by the Company investigating title as the Directors think fit. Where at any time the Board decides to increase the issued capital of the Company by issuing any further shares, then subject to provisions of Section 86 of the Companies Ordinance, 1984, all new shares shall be offered to the members in proportion to the existing shares held by each member, and such offer shall be made by notice specifying the number of shares to which the members is entitled, and limiting a time within which the offer, if not accepted, will be deemed to be declined; and after the expiration of such time, or on receipt of information from the member to whom such notice is given that he/ she declines to accept the shares offered, the Board may dispose of the same



in such manner as it may consider most beneficial to the Company the provisions of the Ordinance

TRANSFER OF SHARES

8. The instrument of transfer of any share in the Company shall be executed jointly by the transferor and transferee, and the transferor shall not be deemed to be a holder of the share until the name of the transferee is entered in the register of members in respect thereof.
9. Shares in the Company shall be transferred in the form prescribed by Table "A" in First Schedule or in any usual or common form, which the Directors shall approve.
10. The Directors shall not refuse to transfer any fully paid shares unless the transfer deed is defective or invalid. The Directors may also suspend the registration of transfer during the ten days immediately preceding a general meeting or prior the determination of entitlement or rights of the shareholders by giving seven days previous notice in the manner provided in the Ordinance. The Directors may decline to recognize any instrument of transfer unless;
 - a) A Fee as may be determined by the Directors is paid to the Company in respect thereof and;
 - b) The duly stamped instrument of transfer is accompanied by the certificate of the shares to which it relates, and such other evidence as the Directors may reasonably require to show the right of the transferor to make the transfer.
11. If the Directors refuse to register a transfer of shares, they shall within one month after the date on which the transfer deed was lodged with the Company send to the transferee and the transferor notice of the refusal indicating the defect or invalidity to the transferee, who shall after removal of such defect or invalidity re-lodge the transfer deed with the Company.

TRANSMISSION OF SHARES

12. The executors, administrators, heirs or nominees, as the case may be, of a deceased sole holder of a share shall be the only person recognized by the company as having any title to the shares. In the case of a share registered in the names of two or more holders, the survivors or survivor, or the executors or administrators of the deceased, survivor shall be the only persons recognized by the Company as having any title to the share.
13. Any person becoming entitled to a share in consequence of the death or insolvency of a member shall, upon such evidence being produced as may from time to time be required by the Directors having the right



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either to be registered as a member in respect of the share or, instead of being registered himself; to make such transfer of the shares as the deceased or insolvent person could have made, but the Directors shall, in either case, have the same right to decline or suspend registration as they would have had in the case of a transfer of the share by the deceased or insolvent person before the death or insolvency.

14. A person becoming entitled to a share by reason of the death or insolvency of the holder shall be entitled to the same dividends and other advantages to which he would be entitled if he were the registered holder of the share, except that he shall not, before being registered as a member in respect of the share, be entitled in respect of it to exercise any right conferred by membership in relation to meetings of the Company.

ALTERATION OF CAPITAL

15. The Company may from time to time, by special resolution increase the share capital by such sum, to be divided into shares of such amount, as the resolution shall prescribe.
16. Subject to the provision of the Ordinance, all new shares shall, before issue, be offered to such persons as at the date of the offer are entitled to receive notice from the Company of general meeting in proportion, as nearly as the circumstances admit, to the amount of the existing share to which they are entitled. The offer shall be made by notice specifying the number of shares offered and limiting a time within which the offer is not accepted, will be deemed to be declined and after the expiration of that time, or on the receipt of an intimation from the person to whom the offer is made that he declines to accept the shares offered, the Directors may dispose of the same in such manner as they think most beneficial to the Company. The Directors may likewise so dispose of any new shares which (by reason of the ratio which the new share bear to shares held by persons entitled to an offer of new shares) cannot in the opinion of the Directors, be conveniently offered under this regulations.
17. The new shares shall be subject to the same provisions with reference to transfer, transmission and otherwise as the shares in the original share capital.



18. The Company may, by special resolution :

- a) Consolidate and divide its share capital into shares of larger amount than its existing shares.
- b) Sub-divide its existing shares or any of them into shares of smaller amount than is fixed by the Memorandum of Association subject, nevertheless to the provision of clause (d) of sub-section (1) of section 92;

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- c) Cancel any shares which, at the date of the passing of the resolution have not been taken or agreed to be taken by any person.

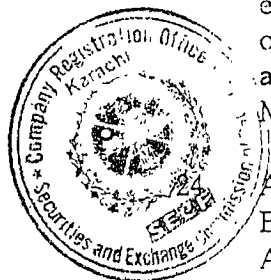
The Company may by special resolution, reduce its share capital in any manner and with, and subject to, any incident authorized and consent required by law.

GENERAL MEETING

20. The first general meeting to be called annual general meeting, shall be held, within 18 months from the date of its incorporation in accordance with provisions of section 158 and thereafter once at least in every year and within a period of four months following the close of its financial year and not more than fifteen months after the holding of its last preceding annual general meeting as may be determined by the Directors.
21. All general meetings of the Company other than the Annual General Meeting mentioned in sections 157 & 158 shall be called extra ordinary general meeting.
22. The Directors may, whenever think fit, call an extra ordinary general meeting and extra ordinary general meetings shall also be called on such requisition, or in default, may be called by such requisitions, as is provided by section 159. If at any time there are not within Pakistan sufficient Directors capable of acting to form quorum, any Directors of the Company may call an extra ordinary general meeting in the same manner as nearly as possible as that in which meeting may be called by the Directors.

PROCEEDINGS AT GENERAL MEETINGS

23. Subject to the provisions of sub-Section (3) of section 158 of the Companies Ordinance, 1984 at least 21 days' notice (exclusive of the day on which the notice is served) specifying the place, the date and the hour of meeting and, in case of special business, the general nature of that business shall be given to such person as are under the Companies Ordinance, 1984 or the regulations of the Company, entitled to receive such notice from the Company, but the accidental omission to give such notice to or the non-receipt of such notice by any member shall not invalidate the proceedings to any General Meeting.



All business shall be deemed special that is transacted at an Extraordinary General Meeting and also all that is transacted at an Annual General Meeting with the exception to declaring a dividend, the consideration of accounts, balance sheet and the reports of the Directors, and Auditors, the election of Directors, the appointment

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32. In the case of an equality of votes whether on a show of hands or on poll, the Chairman of the Meeting at which the show of hands takes place or at which the poll is demanded, shall be entitled to have and exercise a second or casting vote.
33. A poll is demanded for the election of Chairman or on a question of adjournment shall be taken at once.

VOTES OF MEMBERS

34. Subject to any rights or restrictions for the time being attached to any class or classes of shares. On show of hands every member present in person shall have one vote except for election of Directors in which case the provisions of section 178 shall apply, on a poll every member shall have voting rights as laid down in section 160.
35. In case of joint-holders the vote of the senior who tenders a vote, whether in person or by proxy shall be accepted to the exclusion of the votes of the other joint-holders; and for this purpose seniority shall be determined by the order in which the names stand in the register of members. In case of minor the guardian shall be entitled to vote for him.
36. A member of unsound mind, or in respect of whom an order has been made by any court having jurisdiction in lunacy, may vote, whether on show of hands, or on a poll, by his committee or other legal guardian and any such committee or guardian may, on a poll vote by proxy.
37. On a poll, votes may be given either personally or by proxy provided that nobody corporate shall vote by proxy as long as a resolution of its Directors in accordance with the provision of Section 162 of the Companies Ordinance, 1984 is in force.
38. The instrument appointing a proxy shall be in writing under the hand of the appointer or by his attorney authorized in writing if the appointer is a corporation either under the common seal, or under the hand of an officer or attorney so authorized. No person shall act as a proxy unless he is a member of the Company.
39. The instrument appointing a proxy and the power of attorney or other authority (if any) under which it is signed or a notarially certified copy of that power or authority, shall be deposited at the registered office of the Company not less than forty eight hours before the time for holding the meeting at which the person named in the instrument proposes to vote and in default the instrument of proxy will not be treated as valid.
40. An instrument appointing a proxy may be in the following form or in any other form near thereto as may be approved by the Company.



SINDH TRANSMISSION & DISPATCH COMPANY (PVT) LIMITED

I of _____ in the district of _____ being a

member of the "SINDH TRANSMISSION & DISPATCH COMPANY (PVT)

LIMITED" hereby appoint _____ Mr. _____ of as my

proxy to vote for me and on my behalf at the Annual General Meeting or

Extra Ordinary General Meeting of the Company to be held on _____ day of

and at any adjournment thereof.

Dated: _____ Signature _____



41. A vote given in accordance with the terms of an instrument of proxy shall be valid notwithstanding the previous death or insanity of the principal or revocation of the proxy or of the authority under which the proxy is given, provided that not intimation in writing of such death, insanity, revocation or transfer as aforesaid shall have been received by the Company at the office before the commencement of the meeting or adjourned meeting at which the proxy is used.

DIRECTORS

42. The Directors of the Company shall subject to Article clause 44 hereof, fix the number of elected Directors of the Company not later than 35 days before convening of the General Meeting at which Directors are to be elected and the number so fixed shall not be changed except with the prior approval of the General Meeting of the Company.
43. Unless otherwise determined by the Company in General Meeting in the manner provided under Article clause 43, the number of Directors shall not be less than two and more than ten
The following are First Directors of the Company who shall hold office till first Annual General Meeting.

1. MR. MUJTABA SHAHNEEL
2. MR. ALI SIBTAIN
3. MR SHAHNAWAZ FARHAN KHARRO
4. MR. HASAN RAZA ABBASI

44. The directors of the Company shall, unless the number of person who offer themselves to be elected is not more than the number of Directors fixed under Articles Clause 43 and 44 be elected by the members of the Company in General Meeting in the following manner namely:-

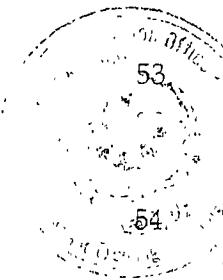


- a member shall have such number of votes as is equal to the product of the number of voting shares or securities held by him and the number of Directors to be elected;
- b) a member may give all his votes to a single candidate or divide them between more than one of the candidates in such manner as he may choose; and
- c) The candidate who gets the highest number of vote shall be declared elected as Directors and then the candidate who gets the next highest number of votes shall be so declared and so on until the total number of Directors to be elected has been so elected.

45. All elected Directors shall retire from office at the General Meeting held after every three years. A Director retiring at a meeting shall retain office until the election of Directors in that meeting.

46. Subject to the provision of Section 181 of the Companies Ordinance, the Company may by resolution in General meeting remove a Director appointed under Article clause 53 or elected in the manner provided for in Article clause 45 hereof.
47. In addition to the Directors elected or deemed to have been elected by shareholders, the Company may have Directors nominated by the Company's creditors or other special interest holders by virtue of contractual arrangements.
48. Save as provided in Section 187, no person shall be appointed as a Director unless he is member of the Company.
49. The Directors of the Company elected under Article clause 45 shall hold office for three years except the Directors appointed against casual vacancy who shall be subject to retirement in term of Article clause 53 hereof
50. A retiring Director shall be eligible for re-election.
51. Subject to the provisions of the Ordinance, the Company may from time to time in General Meeting increase or decrease the number of Directors at time of election.
52. Any casual vacancy occurring on the Board of Directors may be filled up by the Directors but the person so chosen shall be subject to retirement at the same time as if he had become a Director on the day on which the Director in whose place he is chosen was last elected as Director.

REMUNERATION

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53. Subject to the provisions of the Companies Ordinance, the remuneration of Directors including Chief Executive shall from time to time be determined by the Company in board meeting.
 54. The Directors may also sanction the payment of such additional sum, as they may think fit to any Director for the performance of extra services he may render to the Company subject to the approval of the directors at the Board Meeting in accordance with the provisions of the Companies Ordinance, 1984.
 55. The Director who resides out of station shall also be entitled to be paid such traveling expenses as may be fixed by the Directors from time to time.
 56. The Directors may from time to time appoint any one of them to the office of the Director-in-charge/ General Manager for such terms and at such remuneration as they may think fit.

QUORUM

57. The quorum necessary for the meeting of Board of Directors shall be fixed by the Directors and unless so fixed shall be Two Directors present in person.
58. Subject to the provisions of the Ordinance, a resolution in writing signed by all the Directors, without a meeting of Directors shall be effective for all purposes as a resolution passed at the meeting of Directors duly held, called and constituted

DISQUALIFICATION OF DIRECTORS

59. No person shall become a Director of the Company if he suffers from any of the disabilities or disqualifications mentioned in Section 187 and if, already a Director shall cease to hold such office from the date he so becomes disqualified or disabled.
60. All acts done by any meeting of Directors or by a Committee of Directors or by any person acting as a Director shall, notwithstanding that it shall afterwards be discovered that there was some defect in the appointment of such Director, or person acting as aforesaid, as they or any of them were disqualified, be as valid as if every such person had been duly appointed and was qualified to be a Director.

POWERS AND DUTIES OF DIRECTORS

61. The business of the Company shall be managed by the Directors who may pay all expenses incurred in promoting and registering the Company and may exercise all such powers of the company as are not by the Ordinance, or any statutory modification thereof for the time being in force or by these regulations required to be exercised by the Company in the General Meeting subject nevertheless to be provisions of the Ordinance or to any of these regulations, and such regulations being not inconsistent with aforesaid provisions as may be prescribed by the Company in the General Meeting by no regulation made by the Company in General Meeting shall invalidate any prior act of the directors which would have been valid if that regulation had not been made.

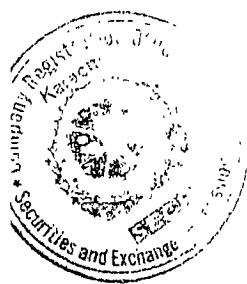


Without prejudice to the general powers conferred by the last preceding article and the other power conferred by these presents. It is expressly declared that the Directors shall have the following powers provided that they shall follow section 196(2) of the Ordinance in exercising the powers enumerated therein.

- a) To take on lease, purchase, erect or otherwise acquire for the Company any land, building, property, rights or privileges

which the Company is authorized to acquire at such price and generally on such terms and conditions, as they think fit.

- b) To sell, let, exchange or otherwise dispose of absolutely or conditionally all or any part of the property, privileges and undertaking of the Company upon such terms and conditions and for such consideration as they may think fit.
- c) To buy, sell, import, export or procure the supply of all plants and machinery, material, stocks in trade and other movable and immovable property and things required for the purpose of the Company.
- d) To engage, fix and pay the remuneration of and dismiss or discharge any manager, engineer, agent, secretary, clerk, accountant, workman, expert, technical adviser, or other persons employed or to be employed in or in connection with business of the Company.;
- e) To appoint any person to be attorney of the Company for such purposes and with such powers, authority and discretions and for such period and subject to such conditions as they may from time to time think fit and to revoke such powers at pleasure.
- f) To enter into, carry, rescind or vary all financial arrangements or agreement with any banks, persons or corporations for, or in connection with the Company's business and affairs and in connection with such arrangement to deposits, hypothecate any property of the Company or documents representing or relating to the same.
- g) To take give receipts and other discharges for money payable to the Company and to the claims and demands of the Company and to draw, accept, endorse, negotiable promissory notes, bills of exchange or other negotiable and transferable instruments concerning/ relating to business of the company.
- h) To deal with surplus money of the Company not immediately required for the purpose thereof upon such terms and conditions as may be thought expedients.
- i) To determine who shall be entitled to sign on Company's behalf, bills, cheques, notes, receipts, acceptances, endorsements, releases, contracts and documents.
- j) To enter into such negotiations and contracts and rescind or vary all such contracts and execute and do all such acts, deeds and things in the name of the Company as they may consider expedient
- k) To open accounts with any bank or bankers and to pay into and withdraw money from such accounts from time to time.
- 1. To get insured the movable and immovable property of the Company.
- l) To pay to any person employed by the Company a commission on the profits of the Company.
- m) To institute, combat, prosecute, defend, compound, settle compromise, adjust, refer to arbitration, withdraw, abandon



any legal proceedings by or against the Company or its officers or otherwise concerning the affairs of the Company.

- n) To make advances for the business of the Company to such persons upon such security or without security as they may think fit, and generally to direct, manage, control the receipts, custody, employment, investment and expenditure of the moneys and funds of the Company and the keeping of accounts thereof.
- o) To appear for and on behalf of the Company in any Court of Justice, Criminal, Civil or Revenue, Police, Postal, Excise, Transport, Income Tax, or other office in any action or proceedings or matters in which the Company may be interested and to promote, safeguard or defend its interest.
- p) To sign and verify any plan, written statement, petition, compromise, mukhtarnama, vakalatnama, authorizing the legal practitioner to act on behalf of the Company in all Court, Civil, Criminal, and Revenue.

63. The Directors shall duly comply with the provisions of the Ordinance or any statutory modification thereof for the time being in force and in particular with the provisions in regard to the registration of the particulars of mortgage charges effecting the property of the Company or created by it, to the keeping of a register a summary of particulars relating thereto and notice of any consolidation or increase or decrease of share capital or sub-division of shares and copies of special resolution and a copy of the register of Directors and notifications of any changes therein.

64. The Directors shall cause minutes to be made in books provided for the purpose;

- a) of all appointment of officers made by the Directors;
- b) of the names of the Directors present at each meeting of Directors and of any committee of the Directors;
- c) of all resolutions and proceedings at all meetings of the Company and of the Directors and of committee or Directors.
- d) and every Director present at any meeting of Directors or committee of Directors shall sign his name in books kept for the purposes.

CHIEF EXECUTIVE

65. The Directors shall appoint any person including an elected Director to be a Chief Executive of the Company in the manner provided in Section 198 and 199 of the Ordinance.

66. The first Chief Executive appointed as aforesaid shall unless he earlier resigns or otherwise ceases to hold office, hold office up to the first annual general meeting of the company or, if a shorter period is

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67. The Company shall appoint a person who is not ineligible to become a Director of the Company under Section 187, the Chief Executive of the Company who shall hold office till the first Annual General Meeting of the Company.
68. The Directors of a Company by resolution passed by not less than three-fourths of the total number of Directors for the time being or the Company may by a special resolution may remove a Chief Executive before the expiration of his term of office notwithstanding anything contained in the Articles or in any agreement between the Company and such Chief Executive.

BORROWINGS POWERS

69. Subject to the provisions of the Ordinance, the Chief Executive / Board of Directors shall have the powers to borrow any sums of money for and on behalf of the Company from commercial banks, or financing institutions including leasing, modarabas and other commercial institutions or the Directors may themselves advance money to the Company upon such terms and conditions as they may approve from time to time.
70. The Directors may from time to time secure the payment of such money in such manner and upon such terms and conditions in all respects as they may think fit and in particular by the issue of debentures or bonds of the Company or by mortgage or charge of all or any part of the property or assets of the Company.

PROCEEDINGS OF DIRECTORS

The Directors may meet together for the dispatch of business, adjourn and otherwise regulate their meetings, as they think fit. Questions arising at any meeting shall be decided by a majority of votes. In case of an equality of votes the Chairman shall have and exercise a second or casting vote. A Director may, and the Secretary on the requisition of a Director shall, at any time, summon a meeting of Directors. It shall not be necessary to give notice of a meeting of Directors to any Director for the time being absent from Pakistan.

72. The Directors may elect a Chairman of their meetings and determine the period for which he is to hold office; but, if no such Chairman is elected, or if at any meeting the Chairman is not present within ten minutes after the time appointed for holding the same or is unwilling to act as Chairman, the Directors present may choose one of their member to be Chairman of the meeting.

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73. The Directors may delegate any of their powers not required to be exercised in their meeting to committees consisting of such member or members of their body as they think fit; any committee so formed shall, in the exercise of the powers so delegated, conform to any restrictions that may be imposed on them by the Directors.

74. (1) A committee may elect a Chairman of its meetings; but, if no such Chairman is elected, or if at any meeting the Chairman is not present within ten minutes after the time appointed for holding the same or is unwilling to act as Chairman, the members present may choose one of their number to be Chairman of the meeting; (2) A committee may meet and adjourn as it thinks proper.

Questions arising at any meeting shall be determined by a majority of votes of the members present. In case of an equality of votes, the Chairman shall have and exercise a second or casting vote.

75. All acts done by any meeting of the Directors or of a committee of Directors or by any person acting as a Director, shall, notwithstanding that it be afterwards discovered that there was some defect in the appointment of any such Directors or persons acting as aforesaid, or that they or any of them were disqualified, be as valid as if every such person had been duly appointed and was qualified to be a Director.

76. A resolution in writing signed by all the Directors for the time being entitled to receive notice of a meeting of the Directors shall be as valid and effectual as if it had been passed at a meeting of the Directors duly convened and held.

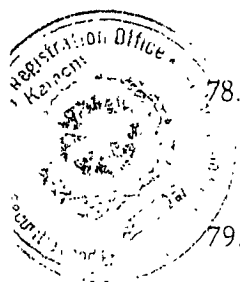
DIVIDENDS AND RESERVE

77. The Company in general meeting may declare dividends but no dividend shall exceed the amount recommended by the Directors.

78. The Directors may from time to time pay to the members such interim dividends as appear to the Directors to be justified by the profits of the Company

79. No dividend shall be paid otherwise than out of profits of the year or any other undistributed profits

80. Subject to the rights of persons (if any) entitled to shares with special rights as to dividends, all dividends shall be declared and paid according to the amounts paid on the shares, but if and so long as nothing is paid upon any of the shares in the Company, dividends may be declared and paid according to the amounts of the shares. No amount paid on a share in advance of calls shall be treated for the



purposes of this regulation as paid on the share.

81. (1) The Directors may, before recommending any dividends, set aside out of the profits of the Company such sums as they think proper as a reserve or reserves which shall, at the discretion of the Directors, be applicable for meeting contingencies, or for equalizing dividends, or for any other purpose to which the profits of the Company may be properly applied, and pending such application may, at the like discretion, either be employed in the business of Company or be invested in such investments (other than shares of the Company) as the Directors may think fit; (2) The Directors may carry forward any profits which they may think prudent not to distribute, without setting them aside as a reserve.
82. If several persons are registered as joint-holders of any share, any one of them may give effectual receipt for any dividend payable on the share.
83. The dividend shall be paid within the period laid down in the Ordinance.

ACCOUNTS

84. The Directors shall cause to be kept proper books of accounts as required by section 230 of the Companies Ordinance with respect to:-
 - a) all sums of money received and expended by the Company and the matter in respect of which the receipts and expenditure take place,
 - b) all sales and purchases of goods by the Company;
 - c) all assets of the Company;
 - d) all liabilities of the Company;
 - e) all other matters required by the Authority from time to time;



The books of account shall be kept at the registered office or at such other place as the Directors shall think fit and shall be open for inspection during business hours.

86. The Directors 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 Directors and no members (not being a Director) shall have any right of inspecting any account and book or papers of the Company except as conferred by law or authorized by the Directors or by the Company in general meeting.
87. The Directors shall as required by Sections 233 and 236 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 referred to in those sections.

88. A balance sheet, profit and loss account, income and expenditure account and other reports referred to in regulation 74 shall be made out in every year and laid before the Company in the annual general meeting made up to a date not more than four 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 Directors.
89. A copy of the balance sheet and profit and loss account or income and expenditure account and reports of Directors 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.
90. The Directors shall in all respect comply with the provisions of Sections 230 to 236.
91. Auditors shall be appointed and their duties regulated in accordance with Sections 252 to 255

AUDIT

92. Once at least in every year the accounts of the Company shall be audited and correctness of the Balance Sheet shall be ascertained by one or more Auditors. The Auditors shall be appointed and their duties regulated in accordance with the provisions of section 252 to 255 of the Companies Ordinance, 1984.



THE SEAL

The Company shall have a Common Seal and Directors shall provide for the safe custody thereof. The Seal shall not be affixed to any instrument except by the authority of a resolution of the Board of Directors and in the presence of at least two Directors and such Director shall sign every instrument to which the Seal is so affixed in his presence. Such signature shall be conclusive proof of the fact that the Seal has been properly affixed.

INDEMNITY

Every Officer or agent for the time being of the Company may be indemnified out of the assets of the Company against any proceedings, whether civil or criminal, arising out of his dealings, in relation to the affairs of the Company, except those brought by the Company against him, in which judgment is given in his favour or in which he is acquitted, or in connection with any application under section 488 of the Ordinance, in which relief is granted to him by the Court.

SECRECY

- 95 No member shall be entitled to visit and inspect the works of the Company without the permission of the Chief Executive/Board of Directors or to require discovery of any information regarding any detail of the Company's business or any matter which is or may be in the nature of trade secret, or secret process which may relate to the conduct of the Company's business and which in the opinion of Chief Executive/ Board of Directors, will not be in the interest of the members of the Company to communicate to the public.

NOTICES

- 96 (1)A notice may be given by the Company to any member either personally or by sending it by post to him to his registered address or (if he has no registered address in Pakistan) to the address, if any, within Pakistan supplied by him to the Company for the giving of notices to him, (2)Where a notice is sent by post, service of the notice shall be deemed to be effected by properly addressing, prepaying and posting a letter containing the notice and, unless the contrary is proved, to have been effected at the time at which the letter would be delivered in the ordinary course of post.

- 97 If a member has no registered address in Pakistan, and has not supplied to the Company an address within Pakistan for the giving of notices to him, a notice addressed to him or to the shareholders generally and advertised in a newspaper circulating in the neighborhood of the registered office of the Company shall be deemed to be duly given to him on the day on which the advertisement appears.

ARBITRATION

98. Whenever any difference arises between the Company on the one hand and the members, their executors, administrator or assignee on the other hand touching the true intent or construction or the

100

incident or consequence of these presents or of the statutes or touching anything thereafter done, executed, omitted or suffered in pursuance of these presents or otherwise relating to these presents or to any statute affecting the Company, every such difference shall be referred for the decision of the arbitrator or umpire under the Arbitration Act, 1940 as amended from time to time.

99. The cost incidental to any such reference and award shall be at the discretion of the arbitrators or umpire respectively who may determine the amount thereof and direct the same to be shared between the attorney and client or otherwise and may award by whom and in what manner the same shall be borne and paid.

WINDING UP

100. If the Company is wound up, the liquidator may with the sanction of special resolution of the Company and any other sanction required by the Ordinance divide amongst the members in specie or kind, the whole or any part of the assets of the Company, whether they consist of property of the same kind or not.

- a) For the purpose aforesaid, the liquidator may set such value as he deems fair upon any property to be divided as aforesaid and may determine how such division shall be carried out as between the members or different class of members.
- b) The liquidator may, with the like sanction, vest the whole or any part of such assets in trustees upon such trust for the benefit of the contributories as the liquidator, with the like sanction think fit but so that no member shall be compelled to accept any shares or other securities whereon there is any liability.



We the several persons whose names and addresses are subscribed are desirous of formed into a company in pursuance of the Article of Association and we respectively agree to take the number of shares in the capital of the Company Set opposite to our respective names:

Name and surname (present & former) in full (in Block Letters)	CNIC No. (in case of foreigner, Passport No)	Father's/ Husband's Name in full	Nationality with any former Nationality	Occupation	Residential Address in full	Number of shares taken by each subscriber	Signatures
GOVERNMENT OF SINDH Through MUJTABA SHAHNEEL	N/A 42101-0731409-1	N/A MUDABBIR HUSSAIN	N/A PAKISTANI	N/A GOVT. SERVANT	7 th Floor, Lakson Square Building No. 3, Opp Kaachi Press Club, Karachi E-108/1 BLOCK F NORTH NAZIMABAD KARACHI	99,996 (Ninety Nine thousand nine hundred & ninety six shares)	<i>Mujtaba Shah</i>
MUJTABA SHAHNEEL	42101-0731409-1	MUDABBIR HUSSAIN	Pakistani	GOVT SERVANT	E-108/1 Block F North Nazimabad Karachi	1 (One Share)	<i>Mujtaba Shah</i>
HASAN RAZA ABBASI	42201-7267925-3	ALLAH BUKHSH	Pakistani	GOVT SERVANT	D-14 Block 13-A Gulshan Iqbal, Hassan Square Block 1, Karachi	1 (One Share)	<i>Hasan Raza</i>
SHAHNAWAZ FARHAN KHARRO	41304-4607327-1	ALI NAWAZ KHARRO	Pakistani	GOVT. SERVANT	463/H Hussainabad Guddu, Latifabad, Hyderabad	1 (One Share)	<i>Shah Nawaz</i>
ALI SIBTAIN	42301-4193430-3	SYED MUHAMMAD SIBTAIN	Pakistani	GOVT SERVANT	Flat No. 55 - B Askari 3, School Road Cantt Karachi	1 (One Share)	<i>Ali Sibtain</i>

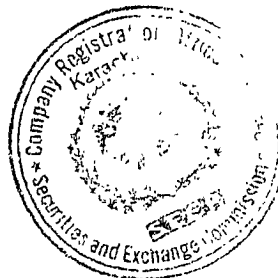
Total = 100,000/-

(In words: One hundred thousand shares)

Mujtaba Shah
Dated: 26 Dec 2014

Witness:

Taha Noman Khan
S/O Muhammad Akram Khan
42201-5547571-5
A-63 Block B Kazimabad
Model Colony, Karachi



Serial No.
Name of Company
Subscribed amount in the memorandum of association
Date of registration

Jointly signed by the subscribers
Company Registration Office,
Karachi

Certified to be True Copy
Shah Nawaz
Deputy Registrar of Companies

ORIGINAL

NTN 4389053-9
Category COMPANY-(PRIVATE LTD.)
Status RESIDENT
Reg. / Inc No. 0091407 Reg. / Inc Date: 07-JAN-2015
Name SINDH TRANSMISSION & DISPATCH COMPANY (PVT.) LIMITED
Address 7TH FLOOR, AK LODHI COMPLEX, SINDH SECRETARIA 6A, SHARAH-E-KAMAL
ATARTURK, KARACHI, DISTT: KARACHI, SINDH
Principal Activity ELECTRIC POWER GENERATION, TRANSMISSION AND DISTRIBUTION

Registered for Income Tax w.e.f 04-MAY-2015

(MANUFACTURER)
Representative's CNIC/ NTN 0585135
Name HASAN RAZA ABBASI
Email Address reza_2500@yahoo.com

Tax Office RTO-I KARACHI

Business Name 1) SINDH TRANSMISSION & DISPATCH COMPANY (PVT.) LIMITED
7TH FLOOR, AK LODHI COMPLEX, SINDH SEC 6, SHARAH-E-KAMAL
ATARTURK, KARACHI, KARACHI, SINDH

This certificate is valid only if verified online at FBR's web site www.fbr.gov.pk



RGCRT-862015-50385092-7

Date of Printing: 08-JUN-2015

Hasan Raza Abbasi

D-14 Hasan Square ♦ Gulshan Iqbal Block 13 A Karachi ♦ +92-21-4990502, 03009237526 ♦ reza_2500@yahoo.com

Objective

Professional Electrical Engineering position allowing for parlay of demonstrated organization, Project Planning and Management, Customer Care and communication skills proven by 24 years of successful career.

Profile

Motivated, personable Engineering professional with multiple University degrees from Pakistan and abroad and a successful 24-year track record of Engineering Practices in Electrical Distribution Networks, Control and Instrumentation in Power Plant, estimating and costing of the projects, Billing processes. Talent for quickly mastering technology. Diplomatic and tactful with professionals and non-professionals at all levels. Accustomed to understanding Engineering drawings in various settings. Demonstrated history of producing accurate, timely technical report.

Flexible and versatile – able to maintain a sense of humor under pressure. Poised and competent with demonstrated ability to easily transcend cultural differences. Thrive in deadline-driven environments. Excellent Team Building Skills.

Job Related Skills

- Capability to run a Power Transmission Distribution Company as demonstrated through my vast experience working in various departments of K.Electric Company.
- Project Planning, Management and Execution of projects pertaining to Electric Power Distribution and Instruments & Control Systems.
- Understanding of the Projects involving Power Transmission Networks, Grids and associated equipment as evident from my working in coordination with Load Dispatch Centre during my posting in Operation in KESC.
- Fault analysis/ Power Flow analysis in Power Networks, including Cables, Over head Wires Transformers, Potential/ Current Transformers, Switch Gears, Bus Bars.
- Load Flow Analysis/ Power management of Power Transmission & Distribution Networks through "Power World Simulation Syntax", Glovers Simulation package, awareness of other power flow simulation softwares.
- Proficiency in scheduling of maintenance of Controlling, Measuring and Testing Equipment in a Power Plant setting as demonstrated from my active participation in successful rehabilitation of 210 MW which increased its capacity from 130MW to 200MW.

Hasan Raza Abbasi

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- Proven expertise in installation and commissioning of instrumentation and control circuits, Fire Alarms, Telephone Exchange, Central Clock System, CCTV in Power plants and Transmission Network Operation and Management as a core responsibility in this role during my posting in Instruments & Control deptt of Bin Qasim Power Station.
- Skills of performing routine periodical maintenance and corrective maintenance jobs of BBC/ABB Procontrol-P System, Data Logging System, Sulzer panel for controlling HP/LP by pass System and potential to work on similar Control Systems.
- Hands on command of calibration, maintenance and testing of field instruments/equipment, including pressure, level, flow transmitters and switches of various makes, Thermocouples, RTDs, Recorders of Yokogawa and Honeywell, pressure, level, flow and temperature Control Valves and Controllers.
- Proven skills in Power Management of Transmission & Distribution Systems.
- Capacity to identify Potential projects for development of Generation, Transmission and Distribution Systems in the Province of Sindh on the pattern of PPP/BOOT/ BOT arrangements.
- Demonstrated expertise of preparing proposals for reduction of Transmission & Distribution Losses through computer added modern techniques.
- Demonstrated skills of preparing and delivering presentations.
- Capability of procurement procedures for Local as well as Foreign Purchase orders for maintaining the required stock of material, equipment and tools.
- Excellence in Coordination Tendering/Bidding, assigning of Work, Monitoring, Checking of Work Process and Completion reports.
- Expertise of preparing technical / financial reports and Budgeting procedures.
- Ability to achieve goals within the dead lines through self initiatives, team work and willingness.
- Excellent Communication Skills.
- Update knowledge of modern Engineering techniques/ issues.
- Awareness with International Standards of Engineering practices, Safety procedures and occupational hazards issues.
- Fluency of English language both in spoken and written expressions.
- Track record of working on Computers using MS office/Net surfing, Power World Simulation Software.

Hasan Raza Abbasi

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Employment History

Energy Department, Govt. of Sindh Karachi Pakistan

Consultant.

December- 2013 till date

Provide Consultancy services to Electricity Monitoring, Reconciliation Cell, Coordination with Companies; HESCO, SEPCO, K.ELECTRIC and Various Govt departments and entities including KWSB, Ministry of Water & Power.

Member Board of Directors SNPCL (Sindh Nooriabad Power Company Ltd) Phases I & II

Member Board of Directors STDC (Sindh Transmission & Distribution Company)

Wind Rose Consultancy Karachi

Director (Operations)

Oct-2012 to Dec-2013

Involved rigourously in profiling and installation of Wind Energy Generators and Solar Panels in DHA phase 9 Karachi

Integrated Buisness Centre Malir

The Karachi Electric Supply Company

General Manager

Aug 2011 to Oct 2012

Managed a large consumers base of Industrial, commercial, Agricultural and Residential Consumers with 55x11 KV feeders and Engineers, Supervisors, Linemen, Fitters.

Reduced Distribution losses by 5.5%, increased Recovery of outstanding dues by Rs

55 Million and reduced power Failures by 50 % in a year. Caused reduction of power break down complaints through effective preventive and corrective maintenance of 11/0.4 Kv Electric power Distribution System.

Integrated Buisness Centre Gulshan Iqbal

The Karachi Electric Supply Company

Deputy General Manager

Nov 2009 to Aug 2011.

Prepared, executed and monitored a maintenance program in Gulshan Iqbal Town as the

team leader successfully during winter 2008 resulting in reduction of feeder tripping by

70 % and reduction of H.T/L.T faults by 80% during following summer and rainy season.

Prepared record 72 proposals in a week in 2010-2011 for conversion of bare conductor

Mains into Aerial Bundled Cables (ABC) and executed in slum areas of Integrated

Business Centre Gulshan Iqbal, resulted in reduction of Distribution losses from

60 % to 5 % and increase in recoveries upto 95% of billed units in the target areas, which

contributed towards exemption of 40 out of 50 feeders from load shedding.

Hasan Raza Abbasi

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Maintenance and Construction Centres Shah Faisal, Defence, Gulshan Iqbal

The Karachi Electric Supply Company

EXECUTIVE ENGINEER/ MANAGER

April 2003 to November 2009

Monitored and facilitated extensive maintenance of H.T/L.T distribution system in Defence Authority a coastal and low lying area after a heavy rain and storm lashed out damages to the distribution network in monsoon 2007, the area recovered and got back to normal earlier than other centres of the city.

Instrumentation and Control, Bin Qasim Power Station,

The Karachi Electric Supply Company

ASSISTANT EXECUTIVE ENGINEER

March 2000 to April 2003

Repaired independently and put in service the Nonfunctional Data Logging System of Unit -2 210 MW in the first year of posting.

Took active participation during General Overhauling and Natural Gas Commissioning of units 1& 2 of 210 MW Power plants Hitachi make and BBC pro Control P Control System.

Industrial Billing

The Karachi Electric Supply Company

ASSISTANT EXECUTVE ENGINEER

Feb 1997 to July 1997

Operation Control West zone

The Karachi Electric Supply Company

ASSISTANT EXECUTIVE ENGINEER

November 1988 to Feb 1997.

Worked as a shift Engineer in Rotational Shifts in Operation Control Room managing more than 320 Feeders of one third of the City of Karachi.

Worked in Close Coordination with Load Dispatch Center, Transmission Line, Grid Station Maintenance, Protection Department, UnderGround Cable Department, SubStation Maintenance Department, Testing Department.

Power Management for efficient operation and delivery of quality power to the inhabitants of a large metropolis.

Was responsible for locating the faults in MV/11KV Distribution System

Took active part during the preventive and corrective maintenance of 11 KV Distribution System during off peak seasons in order to reduce occurrence of faults and to improve quality of power.

Preparing System Improvement proposals in order to minimize the tripping of feeders due to faults and over loading had been a regular feature.

Hasan Raza Abbasi

D-14 Hasan Square ♦ Gulshan Iqbal Block 13 A Karachi ♦ +92-21-4990502, 03009237526 ♦ reza_2500@yahoo.com

Hands on experience of Maintenance, testing and commissioning of Over head lines, Underground cables, switch gears, CTs, Pts, protective relays, Transformers.

Education

- UNIVERSITY OF WOLLONGONG NSW AUSTRALIA

Master of Engineering Studies(Automation and Power Engineering), 1997 to 1999

Research Report: Study of the Power World Simulation Syntax and Comparison with other Power Flow Soft ware.

Elected Member Executive Committee Islamic Club, ^{the} largest club of University of Wollongong Australia 1997-1999.

Nominated Member Executive Committee Illawara Committee for International Students(ICIS) University of Wollongong Australia 1998 – 1999.

- NWFP UNIVERSITY OF ENGINEERING AND TECHNOLOGY PESHAWAR PAKISTAN

BSC (Electrical Engineering), 1982 to 1987

Project: Design and Fabrication of Microwave Antennas.

Professional Affiliation/ Membership

Member Pakistan Engineering Council as Professional Engineer.

Referees

1) Amer Zia

Lead, Power Distribution Projects

USAID Islamabad

Ex Director(Technical)

K.Electric Company

Mob. 03082224845

2) Saleemullah

Ex MD Sindh Small Industries Corportion

Ex Advisor, CEO Siemens Pakistan

Mob. 03218240924

► MUHAMMAD TARIQ SAEED

Address: House No. 91/1, Street No. 17, Khyaban-e-Rahat, Phase VI, DHA, Karachi.

Cell Phone: 0300-2135553

E-mail:- tariq.saeed91@hotmail.com

OBJECTIVE:

To further apply my specialized technical skills related to Grid & Transmission Lines in a dynamic environment of well reputed organization.

SCHOLASTIC:

- Bachelor of Engineering (B.E in Electrical) NED University in 1989. Secured Distinctive Marks throughout.
- Intermediate (HSC), Intermediate Board of Education Karachi in 1983. Secured First Class Marks throughout.
- SSC (Science), Board of Secondary Education Karachi in 1980. Secured First Class First Position and received **GOLD MEDAL** from the Karachi Board.

EXPERIENCE:

20 years continuous experience of construction and maintenance of 220 kV, 132 kV, 66 kV, 11 kV network and EHT load flows in coordination with Load Despatch Center of K-Electric.

Exclusive Eleven years in K-Electric as Extra High Tension Transmission Engineer.

Six years in K-Electric as an Underground Cable Engineer (Worked on fault localization and rectification of High Tension 11 KV cables as well as Low Tension 440V cables.)

Three years in K-Electric as a Sub Station Maintenance Engineer (Worked on Construction, Routine Maintenance and Fault rectification of 11 KV/440V network).

PROMINENT TRANSMISSION LINES ACHIEVEMENTS :

Few years back, erected 132 kV temporary transmission line having a length of 4.2 kms on steel-tubular pole structures to feed the Clifton Grid as an alternate supply within a shortest span of 02 months. The Management appreciated and awarded me whereas Media also gave a good coverage of the work done.

Construction supervision of 220 kV as well as 132 kV Transmission lines in coordination with the Project Implementation Department (PID) in K-Electric.

Similarly, almost all the Managements appreciated and awarded me on basis of performing prominent works.

The current Management gave me a **double jump promotion** in the year 2009-2010 on the basis of my good performance in Transmission Department. Last designation in K-Electric was **Deputy General Manager** of Centralized Transmission Lines network of whole Karachi.

SPECIALIZED SKILLS RELATED TO NEW TRANSMISSION LINES CONSTRUCTION:

- Route plan keeping in view the ROW issues in advance.
- Comprehensive plan & profile of proposed Transmission Line.
- Conductor rating as per load requirement.
- Sag & Tension Design.
- Tower design selection.
- Soil investigations of Tower locations.
- Foundation design as per Suspension/Tension Towers based on Soil Investigation reports.
- Selection of Insulators type.
- Execution of the Final designed scheme.
- Testing & Commissioning of the complete constructed line.
- Submission of the end documentation.

PERSONAL:

FATHER NAME:	SHAIKH SAEED ANWAR
CNIC NO:	42301-8556416-9
DATE OF BIRTH:	03-08-1962
MARTIAL STATUS:	MARRIED
DRIVING LICENCE NO:	CLA 1087501
PASSPORT NO:	ED5974161

PROSPECTUS /INTRODUCTION.

The Sindh Transmission Dispatch Company was registered in SECP on 07-01-2015

Please note that STDC being a wholly owned company of the Government of Sindh intends to acquire a Special Purpose Transmission License under section 19 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 from NEPRA to run the business of Special Purpose Transmission of Electricity. Initially, STDC is considering a power dispatch line of approximately 85 km from Sindh Nooriabad Power Company (Pvt.) Limited (SNPCL) and Sindh Nooriabad Power Company (Pvt.) Limited Phase-II SNPCL, to KDA Scheme 33 Grid Station of K-Electric at Karachi. Power generation is expected in early of 2016. The matter is of utmost importance as it will be the cause of comfort to the general public in the dire need of electricity.

Recently a Senior General Manager (Technical) is already hired for carrying out the Technical duties as per Engineering Standards. The hiring of more Technical/Finance personnel is in progress.

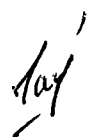


SENIOR GM (TECH)
Sindh Transmission & Dispatch
Company (Pvt) Ltd.



TECHNICAL DETAILS.

PROJECT NAME :	Construction of 132 kV Double Circuit Transmission line from SNPCL to K-Electric KDA-33 Grid Station.
STARTING POINT :	SNPCL Nooriabad.
TERMINATION POINT:	K-Electric KDA-33 Grid Station.
PROJECT TYPE :	EPC.
LINE LENGTH :	Approximately 85 kms.
SURVEY :	Survey / Plan & Profile Survey.
STRUCTURE/TOWER TYPES :	ZM-1, ZM-30, ZM-60.
NUMBER / KM :	05 Nos. per km
POLE TYPES :	SPA, SPD, SPG.
CONDUCTOR :	Aluminum Stranded.
CONDUCTOR TYPE:	ACSR RAIL.
CURRENT CARRYING CAPACITY:	650 Amperes.
CIRCUIT POWER TRANSFER:	120 MWs per circuit.
NUMBER OF CIRCUITS :	02
SHIELD WIRE :	9mm.
INSULATORS :	Porcelain Disc Insulators – Fog Type.
HARDWARE :	As per Standard & compatible with ACSR Rail conductor.
FOUNDATIONS :	As per WAPDA Specifications.


SENIOR GM (TECH)
Sindh Transmission & Dispatch
Company (Pvt) Ltd.

COMMUNICATION SYSTEM : PLC.

GRID STATIONS : 02 Nos. One is new at SNPCL side. Other is existing at K-Electric side.

GRID TYPE : Indoor.

ARRANGEMENT SCHEME : Double Bus-bar.

BASIC INSULATION LEVEL : 132 kV.

CONTROL & PROTECTION : As per IEC Standard.

LIGHTRNING ARRESTOR : Porcelain Type.

SCADA & COMMUNICATION : PLC.


CLIENT : STDC

CONTRACTOR : M/s Technomen Kinetics (pvt) Ltd.

DATE OF CONTRACT AWARD : 12-06-2015

DATE OF COMMENCEMENT : 25-06-2015

DATE OF COMPLETION : 24-01-2016


SENIOR GM (TECH)
South Transmission & Dispatch
Company (Pvt) Ltd.

INTERCONNECTION STUDY OF THE PROJECT

**132 kV DOUBLE CIRCUIT TRANSMISSION LINE
FROM SINDH NOORIABAD POWER COMPANY LTD.
(SNPCL) TO K-ELECTRIC KDA -33 GRID STATION**

A PROJECT OF SINDH TRANSMISSION & DISPATCH COMPANY (PVT.) LTD.

WHOLLY OWNED BY SINDH GOVERNMENT

REQUIREMENTS FOR INTERCONNECTION

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INTRODUCTION

132 kV Double circuit Transmission line which interconnect 100 MW Power Plant SNPCL to K-Electric KDA-33 Grid Station shall follow the given below connectivity protocols.

PURPOSE

1. The purpose is to establish the technical and contractual facilities interconnection requirements for generation, transmission, and end-user facilities. These requirements intend to promote safe operation, system integrity and reliability of the interconnected systems. References to the term "interconnection" include facility additions and modifications. These requirements are minimums to be used as a guide toward SNPCL / KE prompt processing of interconnection requests. A thorough review and understanding of these requirements will assist a requesting party in obtaining timely and mutually satisfactory responses.
2. The review and approval requirements detailed here shall apply to all interconnected facilities regardless of who does the design or installation work.
3. This document may be revised as needed to meet current conditions as per Standards.

GENERAL REQUIREMENTS

1. Interconnections to the STDC transmission system are consistent with KE standards as per standard utility practices. A proposed interconnection must not degrade the reliability, operating flexibility or safety of the existing power system. System studies will be required to evaluate the impact of the requested interconnection.
2. The SNPCL generation and STDC transmission interconnections shall comply with the requirements of Engineering Standards.

ENVIRONMENTAL AND SAFETY REQUIREMENTS

1. The EIA shall be finalized before interconnectivity. The final interconnection cannot be made until all environmental requirements have been met.
2. When the requesting party is to own equipment located in a KE Grid station, switchyard, or right-of-way, the requesting party shall be responsible for the safety / maintenance of these equipments.
3. When making an interconnection to STDC transmission system, the requesting party shall comply with applicable safety laws and building and construction codes, including provisions of applicable safety, health, or industrial regulations or codes, and the KE Safety Manual and programs.

TECHNICAL REQUIREMENTS FOR SNPCL, STDC AND K-ELECTRIC FACILITIES

A.GENERAL

1. SNPCL / KE will conduct or review power system studies (at the expense of the requesting parties or as agreed between the parties) needed to substantiate system impact, reliability, and capability of the transmission system with the addition of the proposed interconnection. The studies may include, but not be limited to, power flow, system stability, short circuit, breaker duty, surge protection, insulation coordination, equipment ratings, system grounding, safety, voltage level, MW capacity, MVAR capacity and synchronizing studies. Evaluation of alternatives to the proposed interconnection, such as lower voltage construction, reactive support facilities, or upgrading facilities, may be requested or conducted.
2. The procedure for coordination of the joint studies of the proposed interconnect is to contact the designated SNPCL and KE personnel herein.
3. Modifications to the existing system to accommodate the proposed project shall adhere to the appropriate National / International standard design criteria and guides as contained herein. Variations from this design criteria or guides may be considered on a case by-case basis.
4. Facilities involved in interconnections with the STDC transmission system shall meet environmental safety requirements including fall protection features.
5. An inspection by STDC personnel of the new or existing facility to be interconnected is required before energization may occur. The inspection requirements will be consistent with the inspection requirements of existing facilities. STDC reserves the right to carry out an inspection thereafter from the date of interconnection if the facility is suspected of causing problems for other customers, upon reasonable notice and at the discretion of STDC.
6. The SNPCL making the interconnection with STDC shall provide its written Standard Operating and Maintenance Coordination Procedures to STDC for the interconnected facility.
7. Breakers and switches installed in SNPCL and KE facilities shall adhere their respective numbering system scheme. All switches to be operated by both the parties will be locked.
8. Equipment ratings shall be suitable for the ambient temperature range of -15° C to 55°C. Equipment ratings shall comply with National / International standards, and shall be sized for load and system expansion for the 15-20 year time frame. Equipment ratings shall comply with the latest ANSI, IEEE and NEMA requirements and must be in accordance with the KE methodology for determining facility ratings.

9. The grounding design shall meet the requirements of IEEE 80 and the requirements of KE. The grounding system shall use 4/0 copper wire, copper clad ground rods and exothermic welds. The fence shall be grounded and a ground grid conductor shall run around the perimeter, three feet beyond the fence.

10. Drawings for facility additions must conform to KE standards and approved by STDC. The requesting party will supply drawings on CD.

11. Three marked prints of each drawing should be provided to STDC not more than 90 days after construction has been completed. The drawings shall be marked to show "as built" conditions. For substation and generation facilities, these drawings shall include, but not be limited to, station plot plans, equipment layouts, conduit and cable trench layouts, grounding plans, single-line diagrams, control circuit schematics, and wiring diagrams. For transmission facilities, the drawings shall include plans, profiles, and hardware and assembly details.

12. Three copies of instruction books and manufacturer's drawings shall be furnished to STDC for each piece of equipment placed within interconnected facilities.

B. SYSTEM CONTROL

1. Interconnections that establish additional or new control area boundaries require the requesting party to furnish all the necessary control area metering equipment. These requirements may include, but are not limited to, any or all of the following:

- a. Analog and/or digital telemetry at the point of interconnection;
- b. Totaling equipment at the point of interconnection or some intermediate point on the communications links.
- c. Communications links to both SNPCL and KE and other organization's power system control center.

C. SYSTEM PROTECTION

1. The interconnecting party (SNPCL) shall provide protective relaying systems consistent with the quality and protection philosophies of KE. Proposed protective relaying requirements for each interconnection will be subject to review and approval by STDC after receipt of a preliminary single-line drawing of the proposed interconnection and a single-line drawing and drawings of the party's interconnected system.

2. The interconnecting party (SNPCL) shall provide re-closer and fuse ratings, relaying data, relay bill of materials, and line and transformer impedances in coordination with KE.

3. Over current relaying and backup over current relaying are required for 132 kV interconnection. Some applications will require directional over current relays. Immediate and time-delayed reclosing is

required. Specialized relaying, such as direct transfer trip, may be required to provide automatic load or generation shedding, or interconnected system separation.

4. STDC will not be responsible for protection of the interconnected party's system. The party is solely responsible for protecting their equipment in such a manner that faults, unbalances, or other disturbances on KE or the surrounding transmission do not cause damage to the party's facilities. Sync check and synchronizing of interconnected facilities is the responsibility of the interconnected facility owner.

D. COMMUNICATIONS:

1. The requesting party shall provide communications facilities sufficient to meet KE fiber, telephone, radio, system protection, remote meter reading, and Energy Management System/Supervisory Control and Data Acquisition (EMS/SCADA) requirements.

2. The communications channels and channel hardware will be provided by the requesting party. SNPCL and KE will specify the type, speed, and characteristics of the communication channel equipment so that compatibility with existing communications, supervisory control, relaying, and telemetering equipment is maintained. The specific type of communication equipment to be furnished by the requesting party will be reviewed and approved by STDC.

E. METERING:

1. Current transformers used for revenue metering circuits must meet the accuracy standards, as specified under the IEC / IEEE or equivalent for an optimized National standard accuracy class.

2. Voltage transformers used for revenue metering circuits must meet the accuracy standards, as specified under the IEC / IEEE or equivalent for an optimized National standard accuracy class.

3. STDC will install, own, operate and maintain the revenue metering. Revenue metering with a recording demand device shall be used if the estimated maximum demand is 100 kilovolt-amperes or greater, or if maximum simultaneous demand billing is contractually required. Such revenue metering shall be compatible with the STDC metering policy.

F. SPECIFIC FACILITIES FOR GENERATION INTERCONNECTIONS:

Generation interconnections shall be in compliance with the current KE "Policy and Guidelines".

G. SPECIFIC FACILITIES FOR TRANSMISSION CONNECTIONS

1. Proposed connections to the STDC transmission system are subject to approval of STDC.

2. Connections to transmission lines at less than 345 kV shall meet the following minimum criteria:

a) A proposed interconnection to a transmission line, whenever possible, will be connected at an existing Grid station. Interconnects at a new location on an existing line will require the requesting party to provide a Grid station site suitable for breakers, relaying and transformer installations.

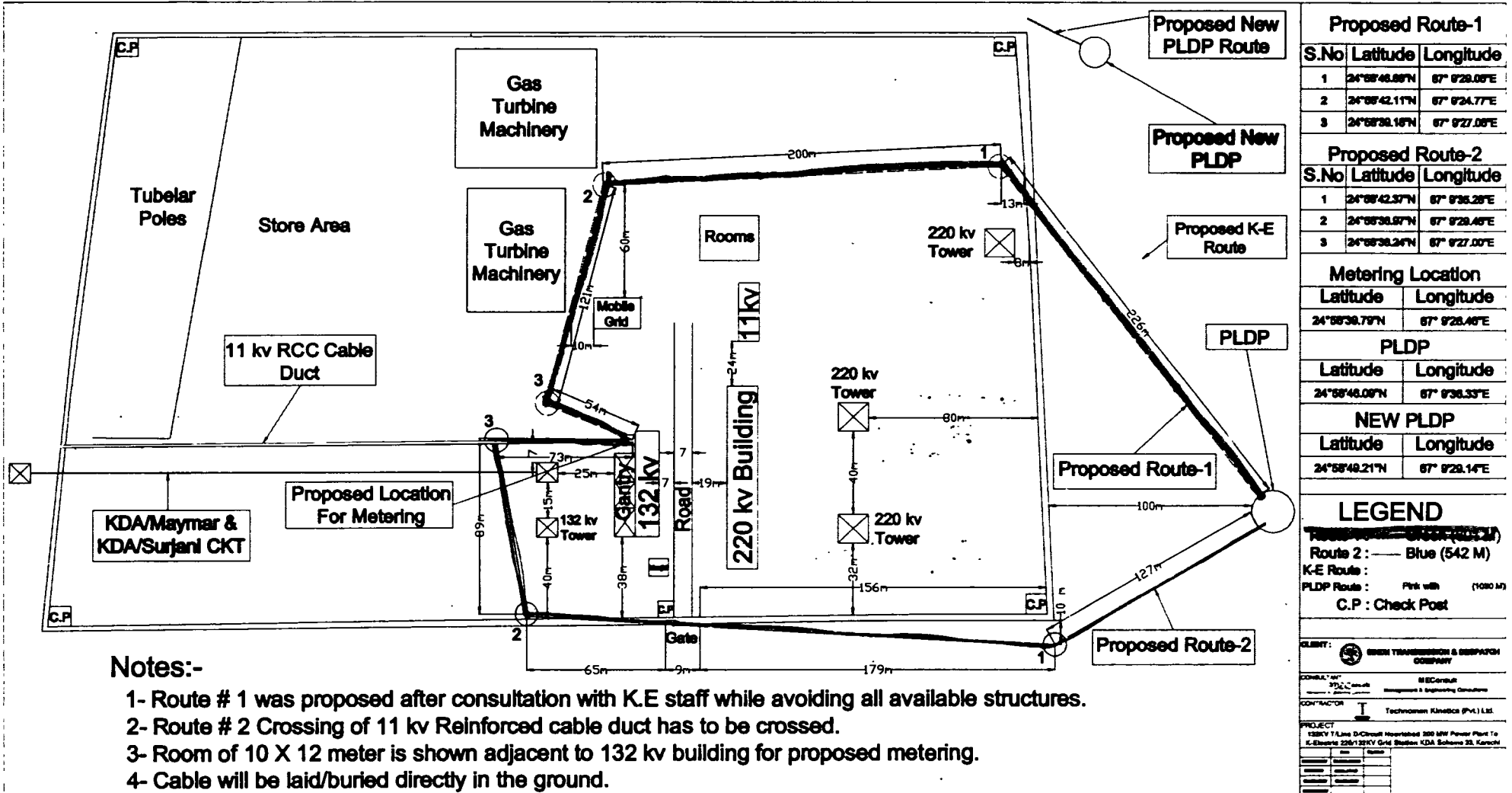
b) No more than one connection without line sectionalizing circuit breakers will be permitted between transmission line breakers. If the requested connection exceeds the one connection between circuit breakers, the requesting party shall be responsible for adding necessary circuit breakers, relaying and compatible relaying at adjacent terminals at its own expense.

c) The interconnecting transmission lines shall have overhead ground wire (OHGW) shielding over the entire length of the line.

3. Since lines at higher voltage levels require the highest reliability, taps to transmission lines of voltages 132 kV and higher are not permitted.

4. Transmission interconnections that include generation shall also meet the requirements of generation's interconnections.

Proposed Cable Route



DETAILED FEASIBILITY STUDY OF THE PROJECT

**132 kV DOUBLE CIRCUIT TRANSMISSION LINE
FROM SINDH NOORIABAD POWER COMPANY LTD.
(SNPCL) TO K-ELECTRIC KDA -33 GRID STATION**

A PROJECT OF SINDH TRANSMISSION & DISPATCH COMPANY (PVT.) LTD.

WHOLLY OWNED BY SINDH GOVERNMENT

INTRODUCTION/PROJECT BACKGROUND

A 100 MW gas fired power plant namely SNPCL (Sindh Nooriabad Power Company Ltd) is under construction some 85 kms from Karachi in the vicinity of Nooriabad. The project is joint venture b/w Govt of Sindh & Private investors. The power evacuation is expected in the early of the year 2016.

After multiple joint meetings between SNPCL, K-Electric and STDC, it was finally decided that the power from the 100MW SNPCL shall be inducted in K-electric Transmission Network via KDA-33 Grid Station of 220 kV/132 kV configuration.

A new 132kV Double circuit Transmission Line is proposed by STDC for transferring power from SNPCL to K-Electric KDA -33 Grid Station.

STDC (Sindh Transmission Dispatch Company) wholly owned by the Govt of Sindh took the challenge to construct a new 132 kV Transmission line from SNPCL to K-Electric KDA-33 Grid Station.

TENDERING FOR EPC CONTRACT

An open tender was floated in the newspaper to construct the proposed T/L through a National Competitive Bidding (NCB) procedure. After going through bid evaluation procedure by Procurement Committee of STDC, M/S Technomen Kinetics was qualified as Technical as well as Commercial Basis.

DESIGN FACTORS

There are many factors which impact on the design and hence cost of Transmission Line and the selection of routes. In this case the optimum selection criteria is used by following the WAPDA/NTDC specifications and line route selection.

BASIC ACTIVITIES

The following activities to fulfill the due diligence were taken place:

- Land Ownership Survey
- Route Survey
- Plan and Profile Survey
- Topographic Survey
- Construction Material Study
- Geotechnical Investigations
- Geophysical Survey
- Seismic Study
- Electric Resistivity Survey
- Environmental impact assessment

LINE ROUTE SURVEY

The initial line route survey was carried out by the EPC contractor. The on ground route survey drawings indicated that the feasible route is around 85kms which started from the 100MW SNPCL and ended in 220/132kV KDA-33 Grid Station. The comprehensive line route drawing is attached herewith for your ready reference at Annexure "A"

LINE ROUTE CHALLENGES

Few Cement Factories are being encountered in the vicinity of the proposed 132kV Double Circuit Transmission Line.

Due to the presence of these industries, the pollution level is increased in these locations of the Transmission Line.

The problem is solved by using the Fog Type Porcelain insulators with the extended creepage up to 3888 mm/kV.

ROW ISSUES

ROW is always one of the major problems in the construction of any Transmission Line in the world. Most of the ROW issues are settled in the initial stage by the EPC contractor and at few locations negotiations is underway with land owners and will be resolved in the due course of time.

ENVIROMENTAL IMPACTS

Almost all the land is hard rock and is very favorable for the construction of conventional foundations of the lattice 132kV Towers.

Population is also very thin along the corridor of the Transmission Line and no health Hazards are seen as the result of the construction of the Line.

However, an Environmental consultant is engaged for the preparation and submission of EIA report to Sindh Environmental Protection Authority (SEPA).

STAKEHOLDERS INPUT

The various inputs shall be gathered from all the concerned stakeholders in the area for the potential benefits and cost of Transmission development in addressing the state energy goals.

BENEFITS

Transmission Line Facility being built to relieve transmission congestion and achieve production cost savings. This will further minimize the hot issues of load shedding by inducting 100MW in the power network.

The Transmission line is designed as per Engineering Standards and is capable to meet the future needs for transmitting the additional power.

POWER PURCHASE AGREEMENT (PPA)

PPA being the legal contract to buy and sell energy is under finalization process.

To meet the shortage of power in the Country, this 100 MW power shall be inducted in the K-Electric Network.

CONCLUSION

The initial land / Route survey, material selection, allocation of funds against estimated cost reveals that the Project is advisable / feasible.

The investment on the Project is also viable as the power is to be supplied to the mega city of Karachi which is the biggest financial hub of Pakistan and in dire need of Electric power.