

**APPLICATION FOR A GENERATION LICENSE FOR
950.625 kWp SOLAR POWER GENERATION FACILITY**

At

Atlas Engineering Limited

**Atlas Industrial Park, 15th Miles, National Highway,
Landhi, Karachi**

Applicant:

Atlas Energy Limited

Registered Address: 64/XX, Khayaban-e-Iqbal,
DHA Phase-III, Lahore, Pakistan.

Tel: 042-37132636-37-38-39-44

September 13, 2024

The Registrar
National Electric Power Regulatory Authority
2 Floor, OPF Building, Sector G-5/2
Islamabad.

Subject: Application for Generation License/Concurrence Application for 950.625 kW Solar Power Generation Facility

Dear Sir,

I, Maqsood Ahmad, being the duly authorized representative of Atlas Energy Limited by virtue of Board Resolution dated **Feb 04, 2019**, hereby apply to National Electric Power Regulatory Authority for the Grant of Generation License/Concurrence to Atlas Energy Limited pursuant to section 15 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, Modification, Extension and Cancellation) Procedure Regulations, 2021 and undertake to abide by the terms and provisions of the above-said regulations. I further undertake and confirm that the information provided in the attached documents-in-support is true and correct to the best of my knowledge and belief.

A HBL Pay order No. **13384417** dated **September 11, 2024**, amounting Rupees **127,589/- (Rupees One hundred twenty-seven thousand five hundred eighty-nine Only)**, being the non-refundable license application fee calculated in accordance with Schedule II to the National Electric Power Regulatory Authority Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021, is also attached herewith.

We request NEPRA to proceed/ approve our case at the earliest.

For & on behalf of
Atlas Energy limited



Maqsood Ahmad
Chief Executive Officer

CHECK LIST FOR EXAMINATION OF LICENSE APPLICATION
FOR RENEWABLE POWER PROJECT
(Regulation 3 read with 3(4)(A) of AMECPR-2021)

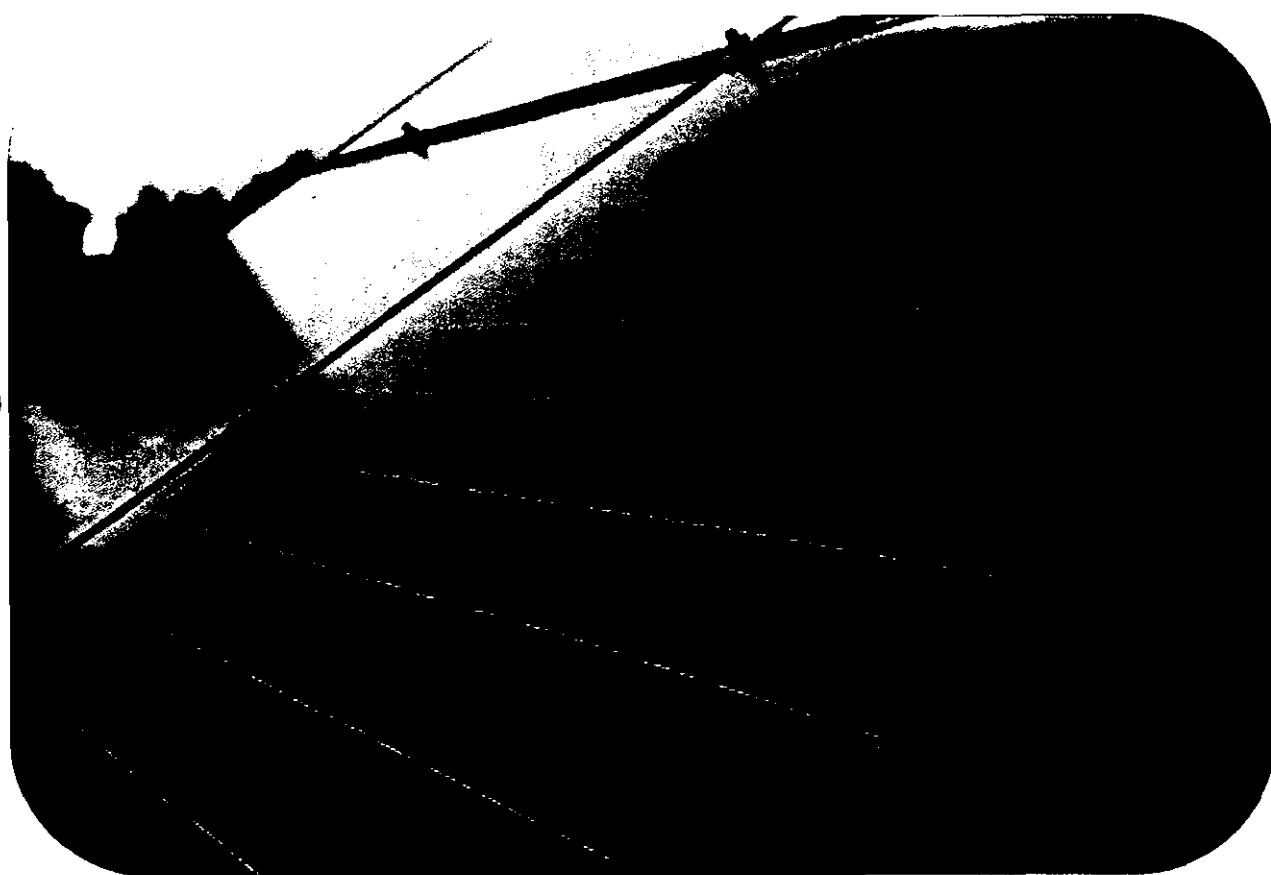
Name of Company: Atlas Energy Limited

Installed Capacity: 950.63 kWp

Regulation #	Information/Documents Required	Information/ Documents Submitted
3(1)*	Application fee (including Indexation)	<i>Attached</i>
3(3)	Application submitted in triplicate	<i>Attached</i>
3(4)(a)	applicable documents-in-support and information set out in Schedule III of these regulations;	<i>Attached</i>
3(4)(b) *	a prospectus	<i>Attached</i>
3(4)(c)(i)(a) *	certified copies of certificate of incorporation	<i>Attached</i>
3(4)(c)(i)(b) *	certified copies of memorandum and articles of association	<i>Attached</i>
3(4)(c)(i)(c) *	certified copies of annual reports of the company	<i>Attached</i>
3(4)(c)(ii) *	the last annual return of the Company submitted in compliance of section 130 of the Companies Act or, in case of an applicant to whom section 130 of the Companies Act does not apply, a return comprising of all such information and particulars as required by the specified form under section 130 of the Companies Act, as the case may be	<i>Attached</i>
3(4)(c)(iii)	the authorized, issued, subscribed and paid-up share capital of the applicant	<i>Attached</i>
3(4)(c)(iv)	the shareholding pattern of the applicant including list of shareholders holding 5% or more shares, number of shares held by each of them and percentage shares of the total paid-up capital	<i>Attached</i>
3(4)(d)(i)	evidence of cash balances held in reserve by the applicant, along with bank certificates;	<i>Attached</i>
3(4)(d)(ii)	details of charges or encumbrances attached to the applicant's assets, if any;	<i>Attached</i>
3(4)(d)(iii)	latest audited financial statements of the applicant;	<i>Attached</i>
3(4)(d)(iv)	expressions of interest to provide credit or financing along with sources and details thereof;	<i>Attached</i>
3(4)(d)(v)	documents describing the net worth and the equity and debt ratios of the applicant, as on the date of the audited balance sheet accompanying the application;	<i>Attached</i>
3(4)(d)(vi) *	a reasonably detailed profile of the applicant and the applicant's senior management, technical and professional staff;	<i>Attached</i>
3(4)(d)(vii)	employment records of engineering and technical staff of the applicant proposed to be employed;	<i>Attached</i>
3(4)(d)(viii)	profile of sub-contractors, if any, along with expressions of interest of such sub-contractors;	<i>Attached</i>
3(4)(d)(ix)	verifiable references in respect of the experience of the applicant and its proposed sub-contractors;	<i>Attached</i>

Regulation #	Information/Documents Required	Information/ Documents Submitted
3(e) *	technical and financial proposals in reasonable detail for the operation, maintenance, planning and development of the facility or system in respect of which the license is being sought;	<i>Attached</i>
3(f) *	Feasibility Study	<i>Attached</i>
3(g) *	an affidavit stating whether the applicant has been granted any other license under the Act;	<i>Attached</i>
3(h) *	a duly authorized statement stating whether the applicant has been refused grant of license under the Act and, if so, the particulars of the refused application, including date of making the application and decision on the application;	<i>Attached</i>
3(6) *	Authorization from Board Resolution / Power of Attorney	<i>Attached</i>
3(7) *	An affidavit as to the correctness, authenticity and accuracy of the application,	<i>Attached</i>
Schedule III (Regulation 3(4)(a)(A)(e))		
1.	Interconnection Study	<i>Attached</i>
2.	Environment Impact Assessment Study	<i>Attached</i>
3	Information relating to:	<i>Attached</i>
3(i) *	Location (location maps, site map, land)	<i>Attached</i>
3(ii) *	Technology, size of the plant, number of units	<i>Attached</i>
3(iii) *	Water source at site for maintenance	<i>Attached</i>
3(iv) *	Infrastructure: roads, rail, staff colony, amenities	<i>Attached</i>
3(v) *	Project commencement and completion schedule with milestones	<i>Attached</i>
3(vi)	Safety plans, emergency plans	<i>Attached</i>
3(vii) *	Plant characteristics (generation voltage, frequency etc.)	<i>Attached</i>
3(viii)	Control, metering, instrumentation and protection	<i>Attached</i>
3(ix) *	Estimated Capacity Factor at site	<i>Attached</i>
3(x)	Degradation Factors	

3(4)(b) a prospectus





Atlas Group:

Mr. Yusuf H. Shirazi, laid the foundation of Atlas in 1962 with the establishment of Shirazi Investments (Pvt) Limited. Atlas is a diversified group dealing in engineering, power generation, financial services and trading, embodying the spirit of development as it endeavors to fuel the growth of Pakistan's economy. It comprises of 16 companies, four of which are quoted on the Stock Exchanges of Pakistan (Atlas Honda Limited, Atlas Battery Limited, Atlas Insurance Limited & Honda Atlas Cars (Pakistan) Limited. Atlas shareholders' equity now stands at 200 billion rupees; assets have increased to 250 billion rupees; personnel strength to 10,000 and annual sales have crossed 160 billion rupees.

Atlas Energy Limited

Atlas Energy Limited was incorporated as an unquoted - public limited company on 18 May 2016, under the Companies Ordinance, 1984. The registered office of the Company is situated at Building No. 64/XX, Khayaban-e-Iqbal, Phase III, D.H.A, Lahore. We are providing cost effective Solar solutions for industrial and commercial consumer through sale of electricity.

Atlas Energy has successfully installed Projects of 11 MW on energy sale and EPC model while approximately 7.0 MW projects are in pipeline.

Currently Atlas Energy have Assets of PKR 335.45 Million and being a part of Atlas Group the company has strong relationship with Financial Institutions, as well as ability to execute bigger Projects.

Vision:

A leading Company in Solar industry in all respects – providing cost effective tailored solutions for industrial and commercial consumer through sale of power, Engineering, Procurement and construction (EPC), operation and Maintenance and giving attractive return to investors being responsible corporate citizen and employer of choice.

Mission:

Being Competitive to provide unique, advance and effective solar solutions to industrial and commercial customers in safe, reliable and environment friendly manner acting with integrity following sound practices with a sense of service in a culture that respects and values the satisfaction of our customers.

Atlas Energy Limited

1.1. Introduction

1.1.1. Atlas Energy Limited was incorporated as an unquoted - public limited company in Pakistan on 18 May 2016, under the Companies Ordinance, 1984.

1.1.2. The registered office of the Company is situated at 64/XX, Khayaban-e-Iqbal, Phase-III, DHA, Lahore.

1.1.3. The Company was incorporated to provide cost effective tailored solar solutions for industrial and commercial consumer through sale of power, Engineering, Procurement and construction (EPC), operation and Maintenance and giving attractive return to investors.

1.1.4. The Applicant Company has the financial strength to meet with the requirements of the Projects through its parent Company Shirazi Investments Private Limited - parent company held 100% ordinary shares of the Company.

1.1.5. The Applicant Company has three Directors, besides the Auditor and Legal Advisor named below:

- **Directors:**
Mr. Frahim Ali Khan
Mr. Saquib H. Shirazi
Mr. Maqsood Ahmad

1.1.6. Membership of Industry & Associations:

- Lahore Chamber of Commerce & Industry (LCCI)
- Pakistan China Joint Chamber of Commerce & Industry (PCJCCI)
- Pakistan Engineering Council (PEC)
- Alternative Energy Development Board (AEDB)

List of Projects:

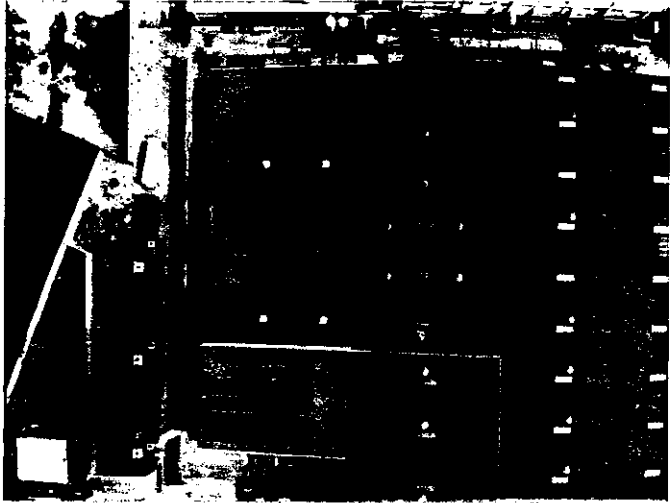
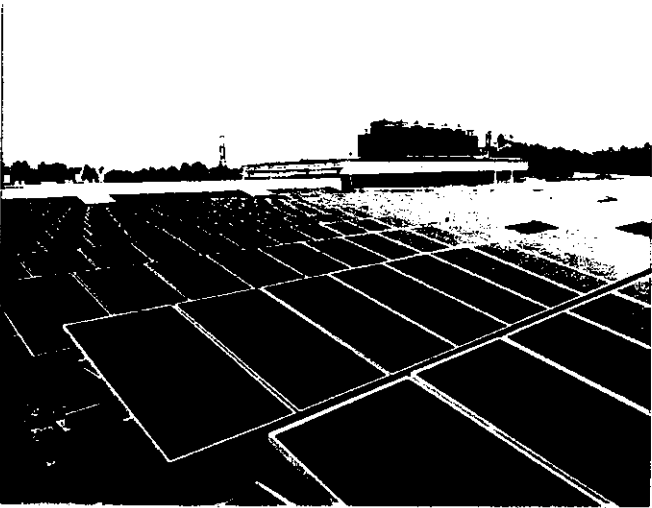
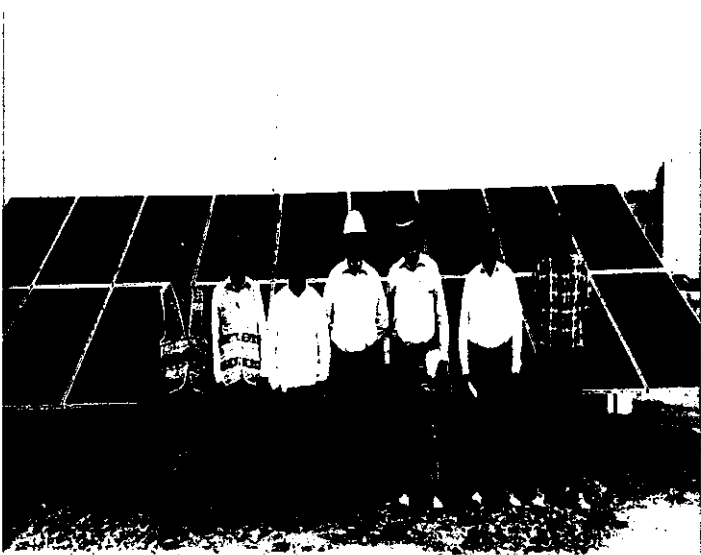
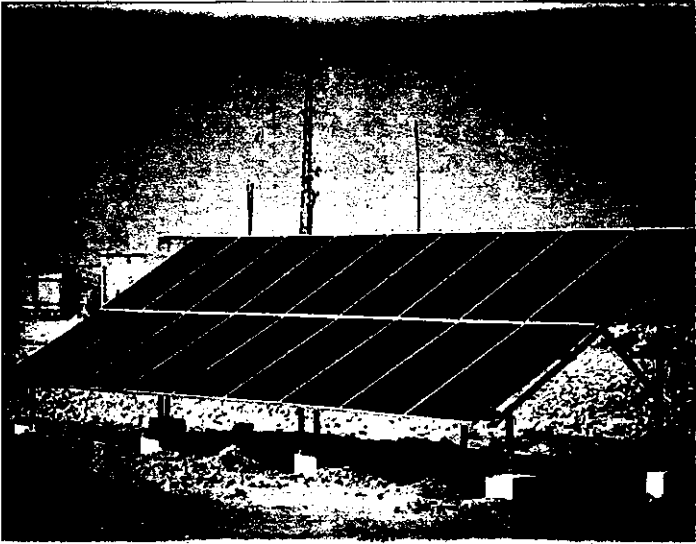
Some of our successful completed projects are as follows:

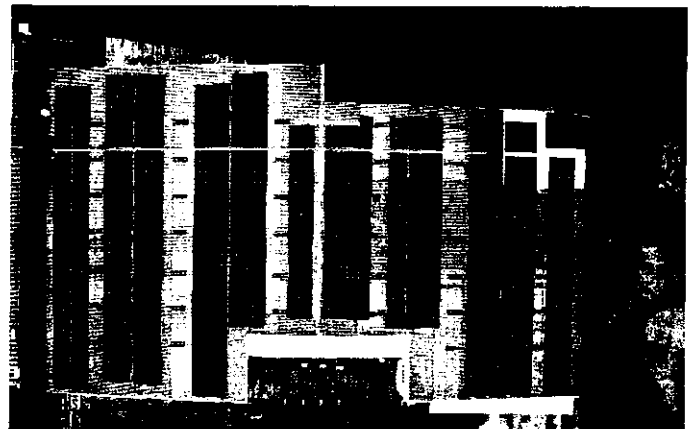
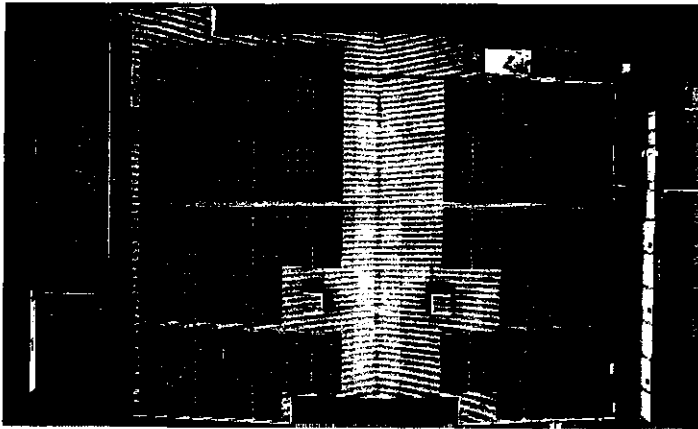
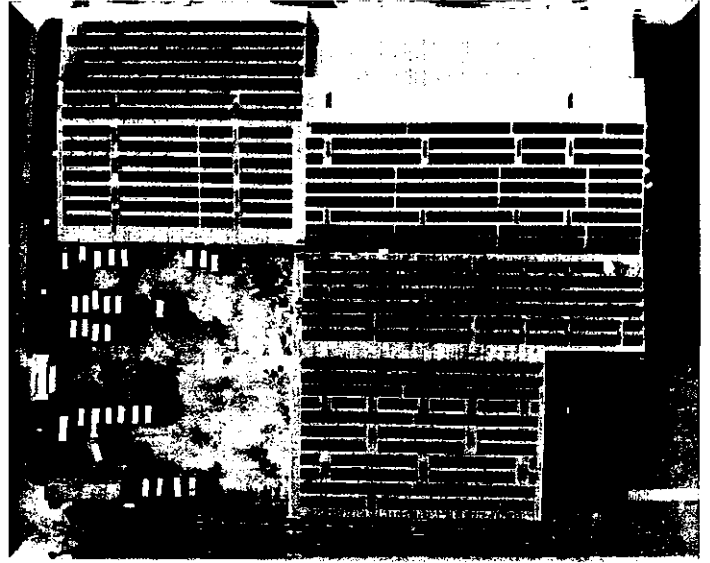
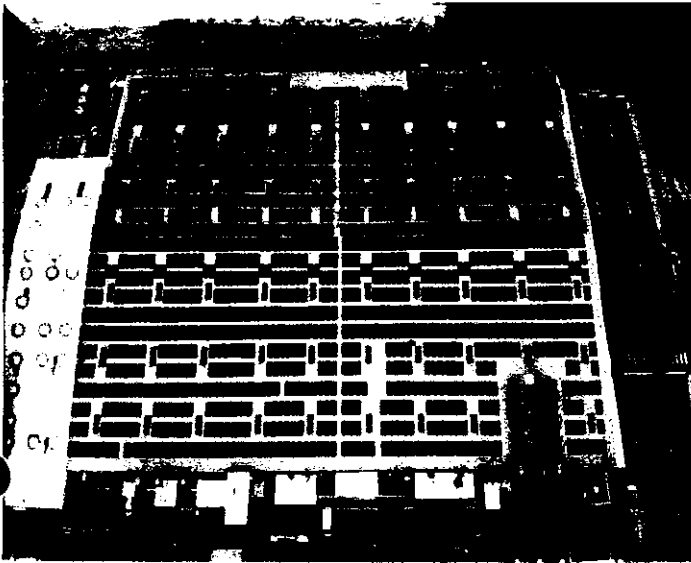
Sr. No.	Category	Project Name/ Location	Nature of Work	Size of Installation (kWp)
1.	Industrial	Honda Atlas Cars Pak Ltd. (43 km Multan Rd, Manga, Lahore)	EPC	497.70
2.	Domestic	DHA Phase-V, Karachi	EPC	6.00
3.	Domestic	DHA Phase-V, Karachi	EPC	6.00
4.	Industrial	Engine Plant (Atlas Honda Ltd. 26/27 Km Lahore-Skp. Road, Skp)	EPA	589.05
5.	Industrial	Pakistan Cables (Nooriabad, Sindh)	EPA	7.20
6.	Industrial	Parking Sheds (Atlas Honda Ltd. 26/27 Km Lahore-Skp Road, Skp)	EPA	405.79
7.	Domestic	Zaman Park Lahore	EPA	12.00
8.	Industrial	Subassembly/ Frame Line (Atlas Honda Ltd. 26/27 Km Lahore-Skp Road, Skp)	EPA	769.08
9.	Industrial	Component Parts (Atlas Honda Ltd. 26/27 Km Lahore-Skp Road, Skp)	EPA	663.25
10.	Industrial	DCC-2 (Atlas Honda Ltd. 26/27 Km Lahore-Skp Road, Skp)	EPA	752.40
11.	Industrial	Atlas Industrial Park Karachi Plot No. 347A, Shed No 2, 15th Miles, National Highway, Landhi, Karachi.	EPC	864.56
12.	Industrial	Atlas Honda Limited Karachi F-36 Estate Avenue, S.I.T.E. Area Karachi.	EPC	96.3

13.	Industrial	Atlas Battery Limited Karachi D-181 Central Avenue, S.I.T.E Area Karachi.	EPC	301.74
14.	Commercial	Atlas Vocational Training Institute Sheikhupura	EPC	72.76
15.	Industrial	Stamping Building (Atlas Honda Ltd. 26/27 Km Lahore-Skp Road, Skp)	EPA	215.82
16.	Industrial	Honda Atlas Cars Pak Ltd. (43 km Multan Rd, Manga, Lahore)	EPC	970.1
17.	Industrial	CBU/SPL Building (Atlas Honda Ltd. 26/27 Km Lahore-Skp Road, Skp)	EPA	2,250.85
18.	Industrial	Test Track (Atlas Honda Ltd. 26/27 Km Lahore-Skp Road, Skp)	EPA	2,621.45

Total Projects Installed: 11,102.05 kWp







2. Profile of Management

2.1. Mr. Frahim Ali Khan

Director

Mr. Frahim Ali Khan has over 50 years of experience in General Management, Finance, Investment and Taxation. He graduated in Commerce from the Karachi University in 1965 and also obtained a degree in law from the same University. He has also attended the Senior Managers' Program from Harvard University, USA, Financial Management from Stanford University, USA, and General Management Program from Insead University, France. He joined the Atlas Group in 1967 and has served in different senior positions.

2.2. Mr. Saquib H. Shirazi**Director**

Saquib Shirazi is a member of the Atlas Group. He is currently the President & Chief Executive Officer of Atlas Honda as well as the Chairman of Pakistan Auto Manufacturers' Association (PAMA).

He has previously served as Chairman, Harvard Business School's Global Alumni Board as well as Chairman, Pakistan Business Council.

He is currently on the Boards of Pakistan Mobile Communication (Jazz Pakistan), Tri-Pack Ltd and National School of Public Policy. He also serves as an advisor to British International Investment (BII) for Pakistan. In the past, he has served on the Boards of leading national and multinational companies.

He graduated from the Wharton School of Finance and has an MBA from the Harvard Business School.

2.3. Mr. Maqsood Ahmad**Director & CEO**

Mr. Maqsood A. Basraa has been the Chief Executive Officer of Atlas Energy Limited and Atlas Solar Limited since 2019 and Group Director Business Development (GDBD) & Member Group Executive Committee (GEC) since April 2017. He is with the Atlas Group since 1989. He has vast general management experience of working with different Companies of Atlas Group. Prior to this, he served State Bank of Pakistan for ten years. He has been leading the Accounts, Finance, Management Audit, Logistics, Commercial, Human Resource, Administration, Strategy and Government Business Relationship for business development for the Group as Group Director before the appointment at present position.

He is the Fellow Member of Institute of Cost & Management Accountants of Pakistan. He also did his Masters in Islamic Studies from Punjab University, Lahore and Banking Diplomas from Institute of Bankers in Pakistan. He attended Advanced Management Program from INSEAD-France. Before that he attended various advanced courses from LUMS, MAP, Administrative Staff College and British Council etc. on general management and leadership.

3(4)(c)(i)(a) * certified copies of certificate of incorporation

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SECURITIES AND EXCHANGE COMMISSION OF PAKISTAN

COMPANY REGISTRATION OFFICE, LAHORE

CERTIFICATE OF INCORPORATION

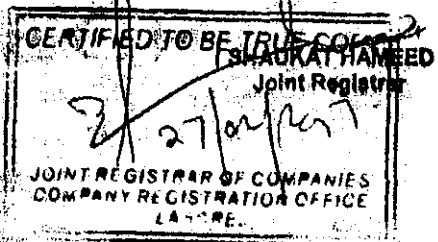
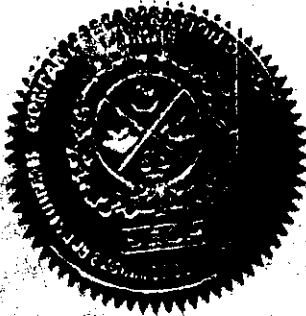
[Under section 32 of the Companies Ordinance, 1984 (XLVII of 1984)]

Corporate Identification No. 0099710

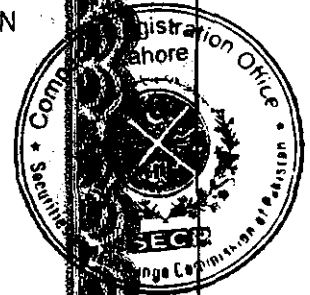
I hereby certify that **ATLAS POWERGEN LIMITED** is this day incorporated under the Companies Ordinance, 1984 (XLVII of 1984) and that the company is Limited by Shares.

Given under my hand at Lahore this Eighteenth day of May, Two Thousand and Sixteen.

Fee Rs. 52,000/-



No. ARL 29268 DATED: 18-05-2016





B007438

SECURITIES AND EXCHANGE COMMISSION OF PAKISTAN

LAHORE

CERTIFICATE OF INCORPORATION ON CHANGE OF NAME
[Under section 13 of the Companies Ordinance, 2016 (VI of 2016)]

Corporate Universal Identification No. 0099710

I hereby certify that pursuant to the provisions of section 11 or section 12 of the Companies Ordinance, 2016 (VI of 2016), the name of

"ATLAS INNOVATION LIMITED"

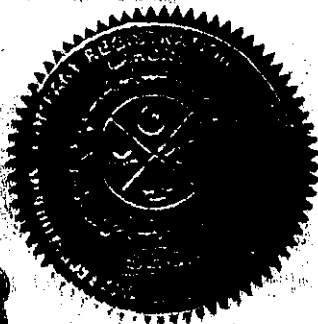
"ATLAS INNOVATION LIMITED"

and that the said company has been incorporated as a company limited by shares under the provisions of the Companies Ordinance, 2016.

This change is subject to the condition that for a period of three months from the date of issue of this certificate, the company shall continue to mention its former name along with its corporate universal identification number on the outside of its registered office and every office or place in which its business is carried on and in every document or notice referred to in clauses (a) and (d) of section 22.

Given under my hand at Lahore this 25th day of November, Two Thousand and Sixteen.

Fee Rs. 5,000/-




(LIAQAT ALI DOLA)
Additional Registrar

No. ARL/10391 Dated: 25/11/2016

CERTIFIED TO BE TRUE COPY


JOINT REGISTRAR OF COMPANIES
COMPANY REGISTRATION OFFICE
LAHORE.

**3(4)(c)(i)(b) * certified copies of memorandum and articles of
association**

THE COMPANIES ORDINANCE, 1984
(COMPANY LIMITED BY SHARES)

ARTICLES OF ASSOCIATION

OF

ATLAS ENERGY LIMITED

PRELIMINARY

Table 'A' not to apply.

- 1) The Regulations contained in Table A in the First Schedule to the Companies Ordinance, 1984 shall not apply to the Company except in so far as they are repeated or contained in these Articles (as modified and altered).

Definitions.

- 2) In these Articles, the following words and expressions shall have meanings as under, unless excluded by the subject or the context, namely:

Articles means these Articles of Association originally framed or as altered from time to time in accordance with the provisions of the Ordinance and the Articles.

Board of Directors means collectively the Directors of the Company holding office of Directors for the time being and from time to time.

Chairman means the Chairman of the Board of Directors appointed from time to time pursuant to these Articles.

Chief Executive means the Chief Executive for the time being of the Company appointed from time to time pursuant to the Articles.

Commission means the Securities and Exchange Commission of Pakistan constituted under the Securities and Exchange Commission of Pakistan Act, 1997

Company means ATLAS ENERGY LIMITED.

Directors mean the Directors of the Company for the time being, including alternate Directors if any appointed by them.

Dividend includes a bonus.

General Meeting means an Annual General Meeting and/or an Extraordinary General Meeting.

Member means a member of the Company within the meaning of clause 21 of Section 2(1).

Memorandum means the Memorandum of Association of the Company as originally framed or as from time to time altered in accordance with the provisions of the Ordinance and the Articles.

Month means a calendar month according to the Gregorian Calendar.

Office means the Registered Office for the time being of the Company.

Ordinance means the Companies Ordinance, 1984 including all statutory modifications thereof for the time being in force and such Other law as may from time to time be passed in substitution or amendment thereof.

Proxy means an instrument in writing whereby a Member authorizes another to vote for him at a meeting or meetings and unless the context otherwise requires, includes an attorney duly constituted under a power of attorney.

Register means the Register of Members to be kept pursuant to Section 147.

Section means a section of the Ordinance.

Special Resolution has the meaning assigned thereto by clause (36) of Section 2(1).

Seal means the common seal of the Company.

Secretary means the Secretary for the time being of the Company.

In writing and written include printing, typewriting, lithography, Electronic transmission, including but not limited to facsimile, telex and Electronic mail or any other mechanical or Electronic process, as prescribed by section 3 of the Electronic Transactions Ordinance, 2000 or partly one and partly the other and other modes of representing or reproducing words in a visible form.

Unless the context otherwise requires, words signifying the singular number shall include the plural number and vice versa.

Unless the context otherwise requires, words signifying the masculine gender shall include the feminine gender.

Words importing persons shall include individuals, firms, companies, corporations, government state or agency or any association, trust or partnership (whether or not having a separately legal personality).

The heading and marginal notes are inserted for convenience only and shall not affect the interpretation or construction of these Articles.

PUBLIC COMPANY

- Public Company** 3) The Company is a public limited company and the Board of Directors shall have regard to the restrictions on the commencement of business imposed under section 146 of the Ordinance, so far as those restrictions are binding upon the Company.

BUSINESS

- Business of the Company.** 4) Any branch or kind of business which the Company is either expressly or by implication authorised to undertake may be undertaken by the Directors at such time or times as they shall think fit, and further may be suffered by them to be in abeyance whether such branch or kind of business may have been actually commenced or not so long as the Directors may deem it expedient not to commence or proceed with such branch or kind of business.

MINIMUM SUBSCRIPTION

- Minimum subscription** 5) For the purposes of Section 68(8), the minimum subscription on which the Board may proceed to allotment shall be Rs. 1,000,000 (Rupees one million only).

SHARES

- | | | |
|---|-----|---|
| <i>Power to issue shares of different classes.</i> | 6) | Subject to Section 90 and any rules in that regard made under the Ordinance, any share in the Company may be issued with such rights and restrictions as may from time to time be determined by the Company in General Meeting. |
| <i>Redeemable shares and securities.</i> | 7) | Subject to Section 95(4)(a) and any rules in that regard made under the Ordinance, the Company may issue shares which are to be redeemed or any other redeemable security, on such terms and in such manner as may be provided in the said Section and rules. |
| <i>No partly paid shares to be issued.</i> | 8) | The Company shall not issue partly paid shares. In the case of an issue of shares for cash, the amount payable on application shall be the full nominal amount of the share, except where shares are issued at a discount. |
| <i>Issue of shares at discount.</i> | 9) | With the previous authority of the Company in General Meeting and the sanction of the Commission and upon otherwise complying with the provisions of Section 84, it shall be lawful for the Board to issue shares in the capital of the Company at a discount. |
| <i>Issue of shares.</i> | 10) | The shares in the capital of the Company for the time being remaining unissued, including any new shares resulting from an increase in the authorized share capital, shall be under the control of the Board which may allot or otherwise dispose of the same to such persons, on such terms and conditions, with such rights and privileges annexed thereto as the resolution creating the same shall direct, and if no such direction be given, as the Board shall determine either at par or at premium or subject to Article 8 above at a discount, with power to the Board to give any person the right to call for and be allotted shares of any class of the Company at par or at a premium or subject as aforesaid at a discount such option being exercisable at such times and in such manner and for such consideration, as the Directors think fit. |
| <i>Allotment of shares.</i> | 11) | As regards any allotment of shares, the Board shall duly comply with the provisions of Sections 68 to 73 as may be applicable. |
| <i>Shares may be issued for consideration other than cash.</i> | 12) | The Board may allot and issue shares in the capital of the Company as payment or part payment for any property / assets sold or transferred to the Company, or for services rendered to the Company in the ordinary course of its business, and shares so allotted shall be issued as fully paid up shares and if so issued, shall be deemed to be fully paid up shares. |
| <i>Commission for placing shares.</i> | 13) | The Company may at any time pay a commission to any person for subscribing or agreeing to subscribe (whether absolutely or conditionally) for any shares or debentures of the Company or procuring or agreeing to procure subscriptions (whether absolute or conditional) for any shares or debentures of the Company, but so that the amount or rate of commission shall not exceed such amount or rate as is authorized by the Board of Directors (or such other rate as may be prescribed by the Commission under the Ordinance) of the price at which the shares are issued or of the nominal value of the debenture in each case subscribed or to be subscribed. In case any commission is to be paid, the Company shall comply with the provisions of Section 82 of the Ordinance. |
| <i>Brokerage</i> | 14) | The Company may pay such brokerage as may be lawful in respect of any issue of shares or debentures. |

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|--------------------------------------|-----|---|
| Registration as shareholders. | 15) | Not more than four persons shall be registered as joint shareholders except in the case of executors or trustees of a deceased member. Shares may be registered in the name of any limited company or other corporate body. |
| Joint shareholders. | 16) | If any shares stand in the name of two or more persons, the person first named in the Register shall, as regards receipt of Dividend or service of notices and all or any other matters connected with the Company, except voting at the meeting and the transfer of shares, be deemed the sole holder. |
| Death of joint shareholders. | 17) | In the case of the death of anyone or more of the persons named in the Register as the joint holders of any share, the survivor or survivors shall be the only person or persons recognized by the Company as having any title to or interest in such share. |

CERTIFICATES

- | | | |
|---|-----|--|
| Members right to certificate. | 18) | Every person whose name is entered as a Member in the Register shall be entitled to receive after allotment or registration of transfer one certificate for all his shares or several certificates each for one or more of his shares upon payment of such charge, if any, as the Board may determine for every certificate after the first. |
| Issue of certificates. | 19) | In accordance with the applicable laws, the certificates of title to shares and duplicates thereof, when necessary, shall be issued under the Seal of the Company and signed by one Director and countersigned by the Company Secretary or such officers of the Company as shall from time to time be authorized by the Board for the purpose. Every person whose name is entered as a member in the Register shall, without payment, be entitled to receive within ninety (90) days after allotment, or within forty-five (45) days of the application for registration of transfer, one (1) certificate for all the shares of each class registered in his name, or if the Board so approves to several certificates each for one (1) or more of such shares. However, in respect of each additional certificate, the Board shall be entitled to charge such fee as it may determine, from time to time. Every certificate of shares shall specify the number and denoting numbers of the shares in respect of which it is issued and the amount paid up thereon. The Board may, by resolution, determine either generally or in any particular case, that the signature of any such Director or officer of the Company may be affixed on share certificates by some mechanical or electronic means, or be printed thereon, in the mode and manner specified in such resolution. |
| Certificates in the case of joint holders. | 20) | The Company shall not be bound to issue more than one certificate in respect of a share or shares held jointly by two or more persons and delivery of a certificate for a share to anyone of the joint holders shall be sufficient delivery to all. |
| Time for issue of certificates. | 21) | Unless the conditions of issue of any shares, debentures or debenture stock of the Company otherwise provide, the Company shall within ninety days after the allotment and within forty five days after receipt by the Company of the application for transfer of any such shares, debentures or debenture stock, complete and have ready for delivery |

the certificate of all shares, the debentures and the certificate of all debenture stock allotted or transferred, and unless sent by post or delivered to the person entitled thereto within the period aforesaid the Company shall immediately thereafter give notice to that person in the manner prescribed in these Articles for the giving of notices to Members that the certificate is ready for delivery.

Lost or mutilated certificates.

- 22) If a certificate of shares, debentures or debenture stock is proved to the satisfaction of the Company to have been lost or destroyed or, being defaced or, mutilated or torn, is surrendered to the Company, and the Company is requested to issue a new certificate in replacement thereof, the Company shall, after making such enquiry as it may deem fit, advise the applicant within thirty days from the date of application the terms and conditions (as to indemnity and otherwise and as to payment of the actual expenses incurred on such enquiry and of a fee not exceeding one rupee) on which the Company is prepared to issue a new certificate and a time for compliance therewith or of the reasons why the Company is unable to issue a new certificate, as the case may be, and in the former case if the applicant shall within the time allowed comply with the terms and conditions specified, the company shall issue a new certificate to the applicant within forty-five days from the date of application.

TRANSFER OF SHARES

Execution of transfer.

- 23) No transfer shall be registered unless a proper instrument of transfer together with the certificate(s) of shares has been delivered to the Company. The instrument of transfer of any share shall be signed both by the transferor and the transferee and the transferor shall be deemed to remain holder of the share until the name of the transferee is entered in the Register in respect thereof.

Form of transfer.

- 24) (i) The instrument of transfer of any share shall be substantially in the following form or as near thereto as circumstances will admit:

ATLAS ENERGY LIMITED

I _____ of _____ in consideration of the sum of Rupees _____ (Rs _____ only) paid to me by _____ of _____ (the "Transferee") do hereby transfer to the Transferee the share(s) numbered _____ to _____ inclusive, in ATLAS ENERGY LIMITED to hold unto the Transferee his executors, administrators and assigns, subject to the several conditions on which I held the same at the time of the execution hereof and I, the Transferee, do hereby agree to take the said share(s) subject to the conditions aforesaid.

As witness our hands this _____ day of _____ 20____

WITNESS:

Signature _____
Transferor

Signature _____
Name _____
CNIC No _____
Full Address _____

WITNESS:

Signature _____
Transferee

Signature _____
Name _____
CNIC No _____
Full Address _____

CNIC No: Passport No _____
in case of foreigner
Full Name _____
Father's/Husband's Name _____
Nationality _____
Occupation _____
Full Address _____

- (ii) Every instrument of transfer shall be left at the office for registration, accompanied by the certificate of the shares to be transferred, and such other evidence as the Board may require to prove the title of the transferor or his right to transfer the shares, and upon payment of the proper fee, the transferee shall be registered as a member in respect of such shares. The Board may waive the production of any certificate upon evidence satisfactory to them of its loss or destruction.

Refusal to register transfer.

- 25) The Directors shall not refuse to register any transfer of fully paid up shares unless the instrument of transfer is defective or invalid or is not accompanied by the certificate of shares to which it relates or due to non-payment of a fee, if any, as prescribed by the Board of Directors. The Directors may also decline to recognize any instrument of transfer unless it is accompanied, in addition to the certificate of shares to which it relates, by such other evidences as the Directors may reasonably require to show the right of transferor to make the transfer. The Directors may, on such terms and subject to such conditions, including without limitation the submission of indemnities, as the Directors may in their absolute discretion, determine, waive the requirement for the production of any certificate upon evidence satisfactory to them of its loss or destruction.

If the Board refuses to register a transfer of shares, it shall within 30 (thirty) days or such other period as may be required by the applicable laws, after the date on which the instrument of transfer was lodged with the Company, send to the transferee and the transferor notice in writing of the refusal indicating the defect or invalidity to the transferee, who shall, after removal of such defect or invalidity, be entitled to re-lodge the instrument of transfer with the Company. Furthermore, the Directors shall not incur any liability for, in a bonafide manner, registering or acting upon a transfer of shares, although the same may, by reason of any fraud or other cause not known to the Directors, be legally inoperative or insufficient to pass the property in the shares proposed or professed to be transferred, and although the transfer may, as between the transferor and transferee, be liable to be set aside, and notwithstanding that the Directors may have notice that such instrument of transfer was signed or executed and delivered by the transferor in blank as to the name of the transferee or the particulars of the shares transferred, or otherwise in defective manner.

Register may be closed.

- 26) On giving seven days prior notice, the transfer books and the Register may be closed during such time as the Board of Directors think fit, not exceeding the whole forty-five days in each year but not exceeding thirty days at a time

TRANSMISSION OF REGISTERED SHARES

Nominees, executor, administrators and heirs.

- 27) The executor or administrator of a deceased member or a person nominated under Section 80 or the holder of a succession certificate shall be the only persons recognized by the Company as having any title to the shares, except in cases of joint-holders, in which case the surviving holder or holders, or the executor or administrator of the last surviving holder shall be the only person entitled to be so recognized. The Company shall not be bound to recognize such executor or administrator unless the executor or administrator shall have obtained probate or letters of administration or other legal representation, as the case may be, from a court of competent

jurisdiction provided nevertheless that in special cases as determined by the Board, it shall be lawful for the Board to dispense with the production of probate or letters of administration or such other legal representation, including a succession certificate, upon such terms as to indemnify or otherwise as the Board may deem fit.

Right of person entitled by death or insolvency.

- 28) (a) Any person becoming entitled to shares in consequence of the death or insolvency of the holder of such shares, shall have the right, subject to verification by the Board and on giving such indemnities as may be required, to receive and give a discharge for any Dividend or other moneys payable or other advantages arising in respect of the shares to which he would be entitled if he were

the registered holder of the shares, but he shall have no right to receive notice of, attend or vote at any General Meetings or (save as aforesaid) to any one of the right or privileges of Members in respect of the shares, unless and until he is named on the Register as a holder thereof.

- (b) The Directors shall have the same right to decline or suspend registration as they would have had in the case of a transfer of the share by that Member before his death or insolvency as the case may be.

ALTERATION OF CAPITAL

Power to increase, consolidate, sub-divide and cancel capital.

- 29) The Company may by ordinary resolution and subject to compliance with the requirements of Section 92:
- (a) increase the authorized share capital by such sum, to be divided into shares of such amount, as the resolution shall prescribe;
 - (b) consolidate and divide its share capital into shares of larger amount than its existing shares;
 - (c) by sub-division of its existing shares or any of them, divide the whole or any part of its share capital into shares of smaller amount than fixed by the Memorandum; and
 - (d) 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 and diminish the amount of its share capital by the amount of the shares so cancelled.

Offers of shares to existing Members.

- 30) The Board may from time to time increase the issued share capital by such sum as they think fit. Further issue of shares shall be carried out in accordance with the provisions of the Ordinance. Provided that fractional shares shall not be offered and all fractions less than a share shall be consolidated and disposed of by the Company and the proceeds from such disposition shall be paid to a charitable institution or as decided by the Board of Directors.

Ranking of new shares.

- 31) Except so far as otherwise provided by the conditions of issue, or by these Articles, any capital raised by the creation of new shares shall be considered part of the original capital, ranking *pari passu* with the existing shares, and shall be subject to the provisions herein contained with reference to transfer and transmission, and otherwise.

Reduction of capital.

- 32) Subject to Section 96, the Company may, by Special Resolution, reduce its share capital in any manner consistent with the law.

Power to modify rights

- 33) Variations of the shareholders rights may be effected by the Company in accordance with the provisions of Section 108

Share premium account.

- 34) The share premium account maintained pursuant to Section 8(1) may, be applied by the Company:
- (a) in writing off the preliminary expenses of the Company;
 - (b) in writing off the expenses of, or the commission paid or discount allowed on, any issue of shares or debentures of the Company;
 - (c) in providing for the premium payable on the redemption of any redeemable preference shares or debentures of the Company; or
 - (d) in paying up unissued shares of the Company to be issued as fully paid bonus shares.

GENERAL MEETINGS

- Statutory Meeting** 35) The statutory general meeting of the company shall be held within the period required by section 157.
- Annual General Meeting.** 36) A General Meeting, designated as the Annual General Meeting, shall be held in accordance with the provisions of Section 158, within eighteen Months from the date of its incorporation of the Company, and thereafter once at least in every calendar year, within a period of four Months following the close of each financial year of the Company, but in such manner that an Annual General Meeting is held in every calendar year and not more than fifteen Months elapses between any two consecutive Annual General Meetings, and subject to the above, each such Annual General Meeting shall be held at such time as may be determined by the Board. Unless otherwise allowed by the Commission, Annual General Meetings shall be held in the town in which the Office is situated, and each such Annual General Meeting shall be held at such location in that town as the Board may determine.
- Other meetings.** 37) All General Meetings other than Annual General Meetings shall be called Extraordinary General Meetings.
- Extraordinary General Meeting.** 38) The Board may, whenever they think fit, call an Extraordinary General Meeting and Extraordinary General Meetings shall also be called on such requisition, or in default, may be called by such requisitionists, as provided for by Section 159.

NOTICE OF GENERAL MEETINGS

- Notice of meetings.** 39) (a) Notice of a General Meeting shall be sent in the manner hereinafter mentioned at least twenty one days before the date on which the meeting is to be convened to all such persons as are under these Articles or the Ordinance entitled to receive such notices from the Company and shall specify the place, day and hour of the meeting and the nature of the business to be transacted thereat.
- (b) In the case of an emergency affecting the business of the Company an Extraordinary General Meeting may be convened by such shorter notice than that specified in Article 39 (a) above and as the Registrar of Companies may authorize.
- (c) Where any special business, that is to say business other than consideration of the accounts, balance sheet and the reports of the Directors and Auditors, the declaration of dividend, the appointment and fixation of the remuneration of Auditors and the election of Directors (all such matters being herein referred to as ordinary business) is to be transacted at a General Meeting, there shall be annexed to the notice of such meeting a statement setting out all such facts as may be material for the consideration of such business including the nature and extent of the interest (whether direct or indirect) of any Director, and where the item of business involves approval of any document, the time and place appointed for inspection thereof, and to the extent applicable such a statement shall be annexed to the notice also in the case of ordinary business to be transacted at the meeting.
- (d) Where a resolution is intended to be proposed for consideration at a General Meeting in some special or particular form, a copy thereof shall be annexed to the notice convening such meeting.

- (e) If a Special Resolution is intended to be passed at a General Meeting, the notice convening that meeting shall specify the intention to propose the resolution as a Special Resolution
- (f) A notice for a General Meeting convened for the election of Directors shall state the number of Directors to be elected at that meeting and the names of the retiring Directors.
- (g) The notice of every General Meeting shall prominently specify that a proxy may be appointed who shall have the right to attend, demand and join in demanding a poll and vote on a poll and speak at the meeting in place of the Member appointing him and shall be accompanied by a form of proxy acceptable to the Company

Omission to give notice.

- 40) The accidental omission to give notice of a meeting to, or the non-receipt of notice of a meeting by, any person entitled to receive notice shall not invalidate the proceedings at that meeting.

PROCEEDINGS AT GENERAL MEETINGS

Quorum.

- 41) No business shall be transacted at any General Meeting unless a quorum is present at the time when the meeting proceeds to business; save as herein otherwise provided (unless specified otherwise in the Ordinance) at least two Members present in person or by proxy representing twenty-five per cent (25%) of the total voting power shall be a quorum.

A company being a member of the Company and present by a representative duly appointed in pursuance of Section 162, shall be deemed to be a Member present personally for the purpose of this Article.

Lack of quorum.

- 42) If within half an hour from the time appointed for the meeting a quorum is not present, the meeting, if called upon the requisition of Members, shall be dissolved; in any other case, it shall stand adjourned to the same day in the next week at the same time and place, and, if at the adjourned meeting a quorum is not present within half an hour from the time appointed for the meeting the Members present, being not less than two, shall be a quorum

Chairman of meeting.

- 43) The Chairman, if any, of the Board of Directors shall preside as Chairman at every General Meeting of the Company or if there is no such Chairman or if he shall not be present within fifteen (15) minutes after the time appointed for the holding of the meeting or is unwilling to act, any one of the Directors present may be elected to be Chairman of the meeting, or if no director is present, or if all the Directors present decline to take the chair, the Members present shall choose one of their members to be Chairman of the meeting.

While chair remains vacant.

- 44) No business shall be discussed at any General Meeting except the election of a chairman so long as the chair is vacant.

Decision on resolutions.

- 45) (i) At a General Meeting, a resolution put to the vote of the meeting shall be decided on a show of hands unless a poll is (before or on the declaration of the show of hands) demanded:
 - (a) by the chairman of the meeting, or
 - (b) by at least one Member present in person or by proxy if not more than seven such members are personally present, and by two such members present in person or by proxy if more than seven such members are personally present, or
 - (c) by any Member or Members present in person or by proxy holding not less than one-tenth of the issued capital which carries voting rights.

(ii) Unless a poll be demanded, at any General Meeting a declaration by the Chairman of the meeting that a resolution has on a show of hands been carried, or carried unanimously, or by a particular majority, or lost and an entry to that effect in the book containing the minutes of the proceedings of the Company shall until the contrary is proved, be evidence of the fact without proof of the number or proportion of the votes recorded in favour of or against such resolution.

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| <i>Manner of taking of poll.</i> | 46) | If a poll is demanded, it shall be taken in accordance with the provisions of Section 168, and the result of the poll shall be deemed to be the resolution of the meeting at which the poll was demanded |
| <i>Casting vote.</i> | 47) | Every question submitted to a meeting shall be decided in the first instance by a show of hand and in case of equality of votes, the Chairman shall, both on a show of hands and at the poll, have a casting vote in addition to the vote or votes to which he may be entitled as a Member and/or proxy or corporate representative. |
| <i>Timing of polls.</i> | 48) | A poll demanded on the election of a Chairman or on a question of adjournment shall be taken forthwith. A poll demanded on any other questions shall be taken at such time, not being more than fourteen days from the day on which the poll is demanded, as the Chairman of the meeting directs. |
| <i>Business may proceed notwithstanding demand of poll</i> | 49) | The demand of a poll shall not prevent the continuance of the meeting for the transaction of any business other than the question on which a poll has been demanded. |

VOTES OF MEMBERS

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| <i>Right to vote.</i> | 50) | Subject to any special rights or restrictions as to voting upon which any share may be issued or may for the time being be held, on a show of hand, every Member present in person and being a holder of ordinary shares shall have one (1) vote and every person present as general proxy who is not a Member of the Company or who is a Member not qualified to vote on behalf of a holder or holders of ordinary share shall have one (1) vote and upon a poll every Member present in person or by Proxy shall have one (1) vote for every share held by him in respect of which he is entitled to vote.
In case of an election or removal of a Director, the provisions of Section 178 and Article 68 and 69 respectively shall apply. |
| <i>Procedure where a company is a Member of the Company.</i> | 51) | Where a company or other corporation is a Member of the Company, a person duly appointed to represent such company at a meeting of the Company in accordance with the provisions of the Ordinance, shall not be deemed to be a proxy and shall be entitled to exercise the same powers on behalf of the Company or corporation which he represents as that company or corporation could exercise if it were an individual Member of the Company, present in person. The production before or at the meeting of a copy of such resolution duly signed by one director or secretary of such company or corporation and certified by him as being a true copy of the resolution shall be accepted by the Company as sufficient evidence of the validity of his appointment. A company or corporation which is a Member of the Company but which is not resident in Pakistan may appoint a representative as aforesaid by facsimile transmission which, if purporting to be sent by such company or corporation, need not be certified as a true copy as aforesaid. |

- Voting shares in different ways.*** 52) On a poll, a Member entitled to more than one vote need not, if he votes, use all his votes or cast all the votes he uses in the same way.
- Joint holders.*** 53) In the case of joint holders, the vote of the senior holder present, 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 their names stand in the Register.
- Member of unsound mind.*** 54) 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 a 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.
- Objections to Votes.*** 55) No objection shall be raised to the qualification of any voter except at the meeting or adjourned meeting at which the vote objected to is given or tendered, and every vote not disallowed at such meeting shall be valid for all purposes. Any such objection made in due time shall be referred to the Chairman of the meeting, whose decision shall be final and conclusive.
- Votes by proxy.*** 56) On a poll, votes may be given either personally (including without limitation a representative of a company or corporation authorized under Article 51 of these Articles) or by proxy.
- Proxy to be in writing.*** 57) The instrument appointing a proxy shall be in writing under the hand of the appointer or of his attorney duly authorized in writing, or, if the appointer is a corporation, either under seal or under the hand of an officer or attorney duly authorized. A proxy need not be a Member of the Company.
- Instrument appointing proxy to be deposited.*** 58) 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 Office 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 shall not be treated as valid.
- Form of proxy.*** 59) An instrument appointing a proxy shall, as nearly as circumstances will admit, be in the following form or in any other form which the Board may approve:

ATLAS ENERGY LIMITED

"I/We _____ being a member of ATLAS ENERGY LIMITED and entitled to _____ votes, do hereby appoint _____ of _____, failing him, _____ of _____ as my/our proxy to vote for me/us and on my our behalf, at the Annual or Extraordinary (as the case may be) General Meeting of the Company to be held on the _____ day of _____ 20____ and at any adjournment thereof.

Signed by me this _____ day of _____ 20____.

(Signature of Member)

Witness to the Signature:

1.

Full Name & Address:

- Proxy may demand poll.*** 60) The instrument appointing a proxy shall be deemed to confer authority to demand or join in demanding a poll.

Revocation of authority

- 61) 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 was executed or the transfer of the shares in respect of which the proxy is given, provided that no 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

Number of Directors.

- 62) The minimum number of Directors of the Company shall be three. The Board shall fix the number of Directors of the Company not later than thirty five 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 prior approval of the General Meeting of the Company.

First Directors.

- 63) The first Directors of the Company shall be as follows:
1. Mr. Saquib Hussain Shirazi
 2. Mr. Frahim Ali Khan
 3. Mr. Maqsood Ahmed

Election of Directors.

- 64) Subject to the provisions of these Articles and the Ordinance, the Directors shall be elected by the Members in General Meeting.

Period of office of elected Directors.

- 65) A Director elected by the Members in General Meeting shall hold office for a period of three years following the date from which his election is effective unless he resigns earlier, becomes disqualified from being a Director or otherwise ceases to hold office.

Casual vacancies.

- 66) Any casual vacancy occurring among the Directors may be filled up by the Directors, and a person so appointed shall only hold office for the remainder of the term of the Director in whose place he is appointed. The Company shall, prior to every such appointment, secure in the form prescribed for this purpose, the consent and certificate of the person concerned consenting to act as a Director and certifying that he is not ineligible to become a Director and shall within fourteen days of his appointment file such consent with the Registrar of Companies as required by Section 184.

Eligibility for election as Director.

- 67) The Members in General Meeting shall elect the Directors from amongst persons who, not being ineligible in accordance with Section 187, offer themselves for election as Directors in accordance with this Article. Any person claiming to be eligible who desires to offer himself for election shall, whether he is a retiring Director or not, file with the Company not later than fourteen days before the date of the General Meeting at which Directors are to be elected, a notice that he, being eligible, intends to offer himself for election as a Director at that meeting and that he consents to act as a Director if elected. If such person is elected a Director, then the Company shall file his consent to act as a Director with the Registrar of Companies within fourteen days of his election as required by Section 184. A person offering himself for election as a Director may withdraw his candidature at any time before the holding of the election and may do so by withdrawing the notice in which he offered himself for election. Not later than seven days before the date of the meeting, the Company will notify the Members of the persons offering themselves for election as Directors at such meeting.

Procedure for election of Directors.

- 68) The provisions of this Article shall apply for the election of Directors by the Members in General Meeting from amongst the candidates eligible for election, namely:
- (a) every Member present in person or by proxy shall have such number of votes as is equal to the product of the number of shares carrying the right to vote held by him and the number of Directors to be elected;
 - (b) the number of votes calculated in accordance with the preceding clause (a) may be given to a single candidate or may be divided between any two or more candidates in such manner as the person voting may choose; and
 - (c) the candidate who gets the highest number of votes shall be declared elected as Director 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.

Removal of Directors.

- 69) The Company in General Meeting may remove a Director from office by a resolution passed with the requisite number of votes determined in accordance with the provisions of Section 181.

Qualifying share.

- 70) The qualification of a Director, except for a nominee under Section 183 or a Director covered by the proviso to Section 187(h) shall be holding of a share in the Company of the nominal value of Rs. 10 - A first Director may act before acquiring his qualification, but shall in any case acquire the same within two months from his appointment and he shall be deemed to have agreed to take the said share from the Company, and the same shall be allotted to him accordingly.

Remuneration of Directors.

- 71) The remuneration of the Directors shall, from time to time, be determined by the Board.

Special remuneration.

- 72) Any Director who is an employee of the Company or who serves on any committee or who devotes special attention to the business of the Company, or who otherwise performs services which in the opinion of the Directors are outside the scope of the ordinary duties of a Director, may be paid such remuneration as the Board may determine.

ALTERNATE DIRECTORS

Alternate Directors.

- 73) A Director who is about to leave or is absent for a period of three Months or more from Pakistan may with the approval of the Directors appoint any person who is eligible under Section 187 for appointment as a Director to be an Alternate Director during his absence from Pakistan and such appointment shall have effect and such appointee whilst he holds office as an alternate Director, shall be entitled to exercise in place of his appointer all the functions of his appointer as a Director of the Company but he shall ipso facto vacate office as and when his appointer returns to Pakistan or vacates office as a Director or removes the appointee from office. Any appointment or removal under this Article shall be effected by notice in writing under the hand of the Director making the same. Such alternate Director may be one of the Directors of the Company, in which case he shall be entitled to act in both capacities. An alternate Director need not hold any share qualification.

POWERS AND DUTIES OF DIRECTORS

Borrowing Powers

- Borrowing powers.*** 74) (a) The Directors may exercise all the powers of the Company to raise money otherwise than by the issue of shares and to mortgage or charge its undertaking or property or any part thereof and to issue debentures and other securities whether outright or as security for any obligation or liability or debt of the Company to any third party.
- (b) In exercising the aforesaid powers of the Company, the Directors may, from time to time and on such terms and conditions as they think fit, raise money from banks and financial institutions and from other persons under any permitted system of financing, whether providing for payment of interest or some other form of return, and in particular the Directors may raise money on the basis of mark-up on price, musharika, mudaraba or any other permitted mode of financing, and without prejudice to the generality of the foregoing, the Directors may exercise all or any of the powers of the Company arising under Section 196(2).
- (c) Subject to the provisions of Article 75(a) in regard to the issue of securities, the Directors may exercise all or any of the powers of the Company arising under Sections 19(2), 87, 120 and 196 (2) and in particular the Directors may issue any security as defined in Section 2(1)(34) or may issue any instrument or certificate representing redeemable capital as defined in Section 2(1)(30A) or participatory redeemable capital as defined in Section 2(1)(25).

Other Powers and Duties

- General powers of Company vested in Directors.*** 75) (a) The business of the Company shall be managed by the Directors, who 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 Articles are required to be exercised by the Company in General Meeting, subject nevertheless to any regulation of these Articles, to the provisions of the Ordinance, and to such regulations being not inconsistent with the aforesaid regulations or provisions, as may be prescribed by the Company in General Meeting; but 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.

- (b) A resolution at a meeting of the Directors duly convened and held shall be necessary for exercising the powers of the Company specified in Section 196(2).

- Power of Attorney.*** 76) The Directors may from time to time and at any time by power of attorney appoint any company, firm or person or body of persons, whether nominated directly or indirectly (including any Director or officer of the Company) by the Directors, to be the attorney or attorneys of the Company for such purposes and with such powers, authorities and discretions (not exceeding those vested in or exercisable by the Directors under these Articles) and for such period and subject to such conditions as they may think fit, and any such powers of attorney may contain such provisions for the protection and convenience of persons dealing with any such attorney as the Directors may think fit and may also authorize any such attorney to delegate all or any of the powers, authorities and discretions vested in him; and without prejudice to the generality of the foregoing any such

power of attorney may authorize the attorney to institute, conduct, defend, compound or abandon any legal proceedings by or against the Company, whether generally or any particular case.

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| <i>Official seal for use abroad.</i> | 77) | The Company may exercise the powers conferred by Section 213 with regard to having an official seal for use abroad, and such powers shall be vested in the Directors. |
| <i>Office of profit.</i> | 78) | A Director of the Company or a firm of which such Director is a partner or a private company of which such Director is a director may with the consent of the Company in General Meeting hold any office of profit under the Company provided that no such consent is required where the office held is that of Chief Executive or a full time employee or legal or technical adviser or banker. |
| <i>Contracting with Company.</i> | 79) | Subject to authorization being given by the Directors in accordance with Section 216, a Director shall not be disqualified from contracting with the Company either as vendor, purchaser or otherwise, nor shall any such contract or arrangement entered into by or on behalf of the Company with any company or partnership of or in which any Director of the Company shall be a member or otherwise interested be avoided nor shall any such Director so contracting or being such member or so interested be liable to account to the Company for any profit realized by any such contract or arrangement by reason of such Director holding that office or of the fiduciary relation thereby established. |
| <i>Disclosure of interests.</i> | 80) | A Director who, or whose spouse or minor child, is in any way, whether directly or indirectly, concerned or interested in any contract or arrangement or proposed contract or arrangement with the Company shall disclose the nature of such concern or interest at a meeting of the Directors in accordance with Section 214. |
| <i>Where Director's interest lies in appointment of Chief Executive etc.</i> | 81) | Where by any contract or resolution of the Directors, an appointment or a variation in the terms of an existing appointment is made (whether effective immediately or in the future) of a Chief Executive, whole time Director or Secretary of the Company, in which appointment any Director of the Company is, or after the contract or resolution becomes, in any way, whether directly or indirectly, concerned or interested, the Company shall inform the Members of such appointment or variation in the manner required by Section 218 and shall comply with the requirements of that Section in regard to the maintaining of such contracts and resolutions open for inspection by Members at the Office, the provision of certified copies thereof and extracts there from and otherwise. |
| <i>Prohibition of voting by interested Directors.</i> | 82) | Except as provided in Section 216, a Director shall not vote in respect of any contract or arrangement in which he is either directly or indirectly concerned or interested nor shall his presence count for the purpose of forming a quorum at the time of any such vote, and if he does so vote, his vote shall not be counted. |
| <i>Register of contracts, arrangements and appointments.</i> | 83) | The Company shall comply with the provisions of Section 219 of the Ordinance with regard to the keeping of a register and the entry therein of the particulars of all contracts and arrangements or appointments of the kind referred to in Sections 214, 215, 216 or 218 of the Ordinance separately for each Section, and with regard to maintaining such register open for inspection by Members at the Office, the provision of certified copies thereof and extracts there from and otherwise. |

***Interested
directorships.***

- 84) A Director of the Company may be or become a director of any other company promoted by the Company or in which the Company may be interested as a vendor, shareholder or otherwise and no such Director shall be accountable for any benefits received as a director or member of such other company.

Signing powers.

- 85) All cheques, promissory notes, drafts, bills of exchange and other negotiable instruments, and all receipts for moneys paid to the Company, shall be signed, drawn, accepted, endorsed, or otherwise executed, as the case may be, in such manner as the Directors shall from time to time by resolution determine.

***Minutes of
meetings.***

- 86) The Directors shall cause minutes of all Board meeting, committee of Directors meeting and General Meeting of the Company to be made in books provided for the purpose and kept at the office:

(a) of all appointments of officers made by the Directors;

(b) of the names of the Directors present at each meeting of the Directors and of any committee of Directors;

(c) of all resolutions and proceedings at all meetings of the Company, and of the Directors and of committee of Directors;

and the Directors present at any meeting of Directors or committee of Directors and all Members and proxies of Members present at any General Meeting shall sign their names in books to be kept for that purpose; and such minutes of such a meeting if purporting to be signed by the chairman thereof, or by chairman of the next succeeding meeting of the same body, shall be sufficient evidence without any further proof of the facts therein stated.

***Payment of
pensions.***

- 87) The Directors on behalf of the Company may pay a gratuity or pension or allowance on retirement to any Director who has held any other salaried office or place of profit with the Company or to his widow or dependents and may make contributions to any fund and pay premiums for the purchase or provision of any such gratuity or pension or allowance.

DISQUALIFICATION OF DIRECTORS

***Disqualification of
Directors.***

- 88) A Director shall ipso facto cease to hold office if:-
- (a) he becomes ineligible to be appointed as a Director on any one or more of the grounds specified in Section 187, or
 - (b) he absents himself from three consecutive meetings of the Directors or from all meetings of the Directors for a continuous period of three Months, whichever is the longer, without leave of absence from the Directors, or
 - (c) he or any firm of which he is a partner or any private company of which he is a director without the sanction of the Company in General Meeting accepts or holds any office of profit under the Company other than that of a chief executive or a legal or technical adviser or a banker; or
 - (d) he fails to obtain within two Months from the effective date of his appointment or at any time thereafter ceases to hold, the share qualification necessary for his appointment.

PROCEEDINGS OF DIRECTORS

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| <i>Meetings of Directors.</i> | 89) The Directors may meet together for the despatch of business, adjourn and otherwise regulate their meetings as they think fit. Except or otherwise provided herein questions arising at any meeting shall be decided by a majority of votes. In case of an equality of votes, the Chairman shall have 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. The Board of Directors may determine to hold a meeting through audio or video conferencing or any other technology whereby all the Directors can, simultaneously, communicate to and with each other. A copy of the minutes of Directors meetings shall be furnished to each Director within fourteen days of such meeting. Notice shall be given in writing to every Director or his alternate Director for any meeting of the Directors and such notice shall be given in writing to his address in Pakistan and by facsimile or email transmission to his address outside Pakistan, if any, notified by him to the Company for this purpose. |
| <i>Quorum of Directors.</i> | 90) Unless otherwise determined unanimously by the Directors, the quorum necessary for the transaction of the business of the Directors shall be majority of directors holding office for the time being. An alternate Director whose appointment is effective shall be counted in a quorum. |
| <i>Effect of vacancy.</i> | 91) The continuing Directors may act notwithstanding any vacancy in their body so long as their number is not reduced below the number fixed by or pursuant to these Articles as the necessary quorum of Directors. |
| <i>Chairman.</i> | 92) The Directors may elect a Chairman of their meetings and determine the period for which he is to hold office. If no such Chairman is elected, or if at any meeting the Chairman is not present within thirty minutes after the time appointed for holding the same, the Directors present may choose one of their numbers to be the Chairman of such meeting only. |
| <i>Powers of meeting.</i> | 93) A meeting of the Directors at which a quorum is present shall be competent to exercise all or any of the authorities, powers and discretions by or under the Ordinance and these Articles for the time being vested in or exercisable by the Directors generally |
| <i>Power to appoint committees and to delegate.</i> | 94) The Directors may delegate any of their powers to committees consisting of such member or members of their body as they think fit and may from time to time revoke such delegation. Any committee so formed shall, in the exercise of the powers so delegated, conform to any regulations that may from time to time be imposed upon them by the Directors. |
| <i>Validity of acts.</i> | 95) All acts done at any meeting of the Directors, or of 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 or continuance in office of any such Directors or person acting as aforesaid, or that they or any of them were disqualified or had vacated office, or were not entitled to vote, be as valid as if every such person had been duly appointed or had duly continued in office and was qualified and had continued to be a Director and had been entitled to be a Director and had been entitled to vote. |
| <i>Resolution in writing.</i> | 96) Subject to the provisions of Article 75(b) of these Articles, a resolution in writing, signed by all the Directors (or in their absence their alternate Directors) for the time being available (not being less than the requisite quorum of Directors) or by all the members of a |

committee for the time being available shall be as valid and effectual as if it had been passed at a meeting of the Directors, or as the case may be of such committee, duly called and constituted in accordance with the provisions of these Articles. Such resolution be contained in one document or in several documents in like form each signed by one or more of the Directors or members of the committee concerned. A facsimile or email transmission sent by a Director or a member of the committee shall be deemed to be a document signed by him for the purposes of this Article.

Meeting by way of electronic communication.

- 97) Subject to any rules framed under or any regulations or directives issued pursuant to the Ordinance, Directors or Members of a committee may take part in a meeting of the Directors or a committee by using any communication equipment which allows everybody participating in the meeting to speak to and hear each other. Taking part in this way will count as being present at the meeting. Meetings will be treated as taking place where the largest group of the participants are or, if there is no such group, where the Chairman of the meeting is present.

CHIEF EXECUTIVE

Appointment of Chief Executive.

- 98) The Company shall have an office of Chief Executive which shall be filled from time to time by the Directors who may appoint a Director or (subject to Section 201) any other person to be the Chief Executive for a period not exceeding three years and on such terms and conditions as the Directors may think fit, and such appointment shall be made within fourteen days from the date on which the office of Chief Executive falls vacant. Upon the expiry of his term of appointment, the Chief Executive shall be eligible for re-appointment. If the Chief Executive at any time is not already a Director he shall be deemed to be a Director of the Company. The Chief Executive may be removed from office in accordance with the provisions of Section 202.

Remuneration of Chief Executive.

- 99) The Chief Executive shall receive such remuneration as the Directors may determine and it may be made a term of his appointment that he be paid a pension and/or gratuity and/or other benefits on retirement from his office.

Powers of Chief Executive.

- 100) The Directors may entrust to and confer upon the Chief Executive any of the powers exercisable by them as they may think fit, and may confer such powers for such time, and to be exercised for such time, and to be exercised for such objects and purposes, and upon such terms and conditions, and with such restrictions as they may think fit and may from time to time revoke, alter or vary all or any of such powers.

OTHER APPOINTMENTS

Appointment of Company Secretary.

- 101) The Company Secretary may be appointed by the Directors from time to time for such term, at such remuneration and upon such conditions as they may think fit. The directors may from time to time remove, dismiss him from office and appoint another in his place.

THE SEAL

Common Seal.

- 102) The Directors shall provide for the safe custody of the Seal which shall only be used by the authority of the Directors or of a committee of the Directors authorized by the Directors on that behalf; and every instrument to which the Seal shall be affixed shall either be signed by one Director and countersigned by the Secretary or by a second Director or by some other person appointed by the Directors for the

purpose or be signed by the Chief Executive alone, but so that the Directors may by resolution determine either generally or in any particular case, that the signature of the Chief Executive, any Director and/or Secretary may be affixed by some mechanical means to be specified in such resolution including without limitation by printing, lithography or stamping.

DIVIDENDS AND RESERVES

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| <i>Declaration of dividend.</i> | 103) | The Company in General Meeting may declare Dividends, but no Dividends shall exceed the amount recommended by the Directors. |
| <i>Interim dividends.</i> | 104) | 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. |
| <i>Dividends payable out of profits.</i> | 105) | No Dividends shall be paid otherwise than out of profits of the year or any other undistributed profits and in the determination of the profits available for dividends the Directors shall give due regard to the provisions of the Ordinance, in particular Sections 83, 235 and 248. |
| <i>Reserve.</i> | 106) | <p>(a) The Directors may, before recommending any dividend 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, at the like discretion, either be employed in the business of the Company or be invested, subject to the provisions of the Ordinance, in such investments (other than shares of the Company) as the Directors may from time to time think fit</p> <p>(b) The Directors may also carry forward any profits which they may think prudent not to distribute, without setting them aside as a reserve.</p> |
| <i>Apportionment of dividends.</i> | 107) | All Dividends shall be declared and paid according to the amounts paid on the shares. All dividends shall be apportioned and paid proportionally to the amounts paid or credited as paid on the shares during any portion or portions of the period in respect of which the Dividend is paid. If any share is issued on terms providing that it shall rank for dividend as from a particular date, such share shall rank for dividend accordingly. |
| <i>Effect of transfer.</i> | 108) | A transfer of shares shall not pass the right to any Dividend declared thereon before the registration of the transfer |
| <i>Payment by post.</i> | 109) | The dividend in respect of any share shall be paid to the registered holder of such share or to his banker or to a financial institution (as defined in Section 2(1)(15A)) nominated by him for the purpose. Unless otherwise instructed in writing by the registered holder of a share, any Dividend payable in cash in respect of such share may be paid by cheque or warrant sent through the post by registered mail to the registered address of the holder or, in the case of joint holders, to the registered address of that one of the joint holders who is first named on the Register or to such banker or financial institution as may have been nominated by the registered holder. Every such cheque or warrant shall be made payable to the order of the person to whom it is sent. Anyone of two or more joint holders may give effectual receipts for any Dividends payable in respect of the shares held by them as joint holders. |

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| <i>Time for payment of dividend.</i> | 110) | All Dividends shall be paid within the periods specified in Section 251 of the Ordinance. |
| <i>Dividend not to bear interest.</i> | 111) | No Dividend payable in respect of a share shall bear interest against the Company. |
| <i>Unclaimed Dividends.</i> | 112) | All dividends unclaimed for one year, after having been declared, may be invested or otherwise made use of by the Directors for the benefit of the Company until claimed, and the Company shall not deemed to be a trustee in respect thereof. |
| <i>Payment of dividends in specie.</i> | 113) | With the sanction of a General Meeting, any Dividend may be paid wholly or in part by the distribution of specific assets and in particular of paid up shares or debentures of any other company or in anyone or more of such ways. Where any difficulty arises in regard to such distribution, the Directors may settle the same as they think expedient, and in particular may issue fractional certificates and fix the value for distribution of such specific assets or any part thereof and may determine that cash payments shall be made to any Members upon the footing of the value so fixed, in order to adjust the rights of all Members, and may vest any such specific assets in trustees upon trust for the Members entitled to the dividend as may seem expedient to the Directors. |

ACCOUNTS

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| <i>Keeping of accounts.</i> | 114) | <p>The Directors shall cause to be kept proper books of account with respect to:-</p> <p>(a) all sums of money received and expended by the Company and the matters in respect of which the receipts and expenditures take place;</p> <p>(b) all sales and purchases of goods by Company;</p> <p>(c) all assets of the Company;</p> <p>(d) all liabilities of the Company; and</p> <p>(e) where the provisions of Section 230(1)(e) of the Ordinance are applicable, such particulars relating to utilization of material or labour or to other inputs or items of cost as may be prescribed.</p> |
| <i>Location.</i> | 115) | The books of account shall be kept at the Office or at such other place in Pakistan as the Directors may decide and shall be open to inspection by the Directors during business hours. If the Directors decide to keep the books of account at a place other than the Office they shall comply with the directions contained in the proviso to Section 230(1). |
| <i>Period.</i> | 116) | The Company shall preserve in good order the books of account of the Company in respect of any financial year for such period as is required by law following the close of that year. |
| <i>Inspection by Members.</i> | 117) | The Directors shall from time to time determine whether and to what extent and at what times and places and under what conditions or regulations the accounts and books of the Company or any of them shall be open to the inspection of Members not being Directors and no Member (not being a Director) shall have any right of inspecting any account or books or papers of the Company except as conferred by the Ordinance or authorized by the Directors or by the Company in General Meeting. |

Annual accounts and reports.

- 118) (a) The Directors shall arrange to place before the Annual General Meeting of the Company at some date not later than eighteen Months after the incorporation of the Company and subsequently once in every calendar year, a duly audited balance sheet and profit and loss account, conforming to the requirements of Sections 234, 237, 238 and 240 and prepared by a date not more than four Months before the date of such meeting and having the auditor's report attached thereto, and a report of the Directors, conforming to the requirements of Section 236.
- (b) As required by Section 241, the balance sheet and profit and loss account shall first be approved by the Directors and when so approved shall be signed by the Chief Executive and at least one Director, but if on account of his absence from Pakistan or other reason the signature of the Chief Executive cannot be obtained, the balance sheet and profit and loss account shall be signed by at least two Directors for the time being in Pakistan, and in every such case a statement signed by those two Directors shall be joined to the balance sheet and profit and loss account stating the reason why the signature of the Chief Executive was not obtained.
- (c) The Directors may authorize the Chairman or the Chief Executive to sign the report of the Directors which may then be signed accordingly, but in the absence of any such authority the report of the Directors shall be signed as required by Section 236(3) in the same manner as the balance sheet and profit and loss account.

Copies of annual accounts and reports.

- 119) (a) A copy of the balance sheet, profit and loss account and the reports of the Directors and auditors shall be sent not less than twenty one days before the date of the Annual General Meeting to the Members and other persons entitled to receive notices of General Meetings in the manner in which notices are to be given hereunder and a copy thereof shall be kept for a period of at least twenty-one days before the meeting at the Office for inspection by the Members.
- (b) After the balance sheet, profit and loss account and the reports of the Directors and auditors have been laid before the Annual General Meeting of the Company, such number of copies thereof along with prescribed documents, signed by the signatories thereto shall be filed with the Registrar of Companies within thirty days from the date of the meeting and the Company shall also comply with the provisions of Section 242(2) where applicable.

Compliance with the Ordinance.

- 120) The Directors shall in all respects comply with the provisions of Sections 230 to 247 of the Ordinance, or any statutory modification thereof for the time being in force.

CAPITALIZATION OF PROFITS

Power to capitalize.

- 121) The Company in General Meeting may upon the recommendation of the Directors resolve that it is desirable to capitalize any part of the amount for the time being standing to the credit of any of the Company's reserve accounts or to the credit of the profit and loss account or otherwise available for distribution, and accordingly that such sum be set free for distribution amongst the Members who would be entitled thereto if distributed by way of Dividend and in the same proportions on condition that the same be not paid in cash but be applied either in or towards paying up any amounts for the time being unpaid on any shares held by such Members respectively or paying up in full unissued shares or debentures of the Company to be allotted and distributed as fully paid up to and amongst such Members in the proportion aforesaid, or partly in the one way and partly in the other, and the Directors shall give effect to such resolution.

- Effect of resolution to capitalize.** 122) Whenever such a resolution as, aforesaid shall have been passed the Directors shall make all appropriations and applications of the undivided profits resolved to be capitalized thereby, and all allotments and issues of fully paid shares or debentures, if any, and generally shall do all acts and things required to give effect thereto, with full power to the Directors to make such provision by the issue of fractional certificates or by payment in cash or otherwise as they think fit for the case of shares or debentures becoming distributable in fractions and also to authorize any person to enter on behalf of all the Members entitled thereto into an agreement with the Company providing for the allotment to them respectively, credited as fully paid up, of any further shares or debentures to which they may be entitled upon such capitalization, or (as the case may require) for the paying up by the Company on their behalf, by the application thereto of their respective proportions of the profits resolved to be capitalized, of the amounts or any part of the amounts remaining unpaid on their existing shares, and any agreement made under such authority shall be effective and binding on all such Members.

AUDIT

- Auditors.** 123) Auditors shall be appointed and their duties regulated in accordance with Sections 252 to 255 of the Ordinance, or any statutory modifications thereof for the time being in force.

NOTICES

- Notice to Member.** 124) (a) 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 by courier 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 them.
- (b) 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.
- Notices by advertisement.** 125) 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 Members generally and advertised in a newspaper circulating in the province in which the Office is situated shall be deemed to be duly given to him on the day on which the advertisement appears. In all such cases, the Company shall also comply with the requirements of the proviso to Section 50(3) of the Ordinance where applicable.
- Notice to joint holders.** 126) A notice may be given by the Company to the joint holders of a share by giving the notice to the joint holder named first in the Register in respect of the share.
- Notice to legal representatives.** 127) A notice may be given by the Company to the persons entitled to a share in consequence of the death or insolvency of a Member by sending it through the post in a prepaid letter addressed to them by name, or by the title of representatives of the deceased, or assignee of the insolvent or by any like description, at the address (if any) in Pakistan supplied for the purpose by the persons claiming to be so entitled, or (until such an address has been so supplied) by giving the notice in any manner in which the same might have been given if the death or insolvency had not occurred.

Notice to foreign shareholder. 128) Notwithstanding anything hereinabove to the contrary, in addition to any other notice it or he shall be entitled to receive, a Member, which is a foreign corporation, company or individual shall be given notice, if applicable, by facsimile transmission, electronic mail addressed to such Member at the facsimile number or electronic mail address supplied by it or him to the Company.

Notices of General Meetings. 129) Notice of every General Meeting shall be given in some manner hereinbefore authorized to (a) every Member except those Members who (having no registered address within Pakistan) have not supplied to the Company an address within Pakistan for the giving of notices to them, (b) every Member of the Company being a foreign corporation or company which has supplied to the Company a facsimile number or electronic mail address for the sending of notices to it, (c) every person entitled to a share in consequence of the death or insolvency of a Member, who but for his death or insolvency would be entitled to receive, notice of the meeting, and (d) the auditors of the Company.

Binding value of prior notices. 130) Every person who, by operation of law, transfer or other means whatsoever shall become entitled to any shares shall be bound by every notice in respect of such shares, which previously to his name and address being entered on the Register shall have been duly given to the person from whom he derived his title to such shares.

WINDING-UP

Distribution of assets in specie. 131) If the Company shall be wound up, the liquidator may, with the sanction of a 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 shall consist of property of the same kind or not) and may, for such purpose, set such value as he deems fair upon any property to be divided as aforesaid and may determine how much division shall be carried out as between the Members or different classes of Members. The liquidator may, with the like sanction, vest the whole or any part of such assets in trustees upon such trusts for the benefit of the Members or any of them as the liquidator with the like sanction shall think fit, but so that no Member shall be compelled to accept any shares or other securities whereon there is any liability.

SECRECY

Inspection of the premises of the Company. 132) Save as otherwise provided in the Ordinance, no Member or other person (not being a Director) shall be entitled to visit and inspect any of the Company's premises or properties of the Company without the permission of Directors of the Company for the time being or any person authorized in this behalf by the Directors or to require discovery of or any information respecting any detail of the Company's trading or any matter which is or may be in the nature of a trade secret, mystery of trade or secret process or of any matter whatsoever which may relate to the conduct of the business of the Company and which in the opinion of the Directors will be inexpedient in the interest of the Members of the Company to communicate to the public.

INDEMNITY

Indemnity of Directors, Officers and Auditors. 133) Every Director or officer of the Company and every person employed by the Company as Auditor shall be indemnified out of the funds of the Company against all liability incurred by him as such Director, officer or Auditor in defending any proceedings, whether civil or criminal, in which judgment is given in his favour, or in which he is acquitted, or in connection with any application under Section 488 in which relief is granted to him by the Court.

DISPUTE RESOLUTION

***Settlement of
dispute through
mediation***

- 134) In the event of a dispute, claim or controversy arises between the Company, its management or its shareholders, or between shareholders inter-se, or the directors inter-se, all steps shall be taken to settle the dispute and resolve the issue through mediation by an accredited mediator before taking recourse to formal dispute resolution such as arbitration or litigation.

***Differences to be
referred to
Arbitration(s)***

- 135) Whenever any difference arises between the Company on the one hand and any of the Members, their executors, administrators or assigns on the other hand, touching the true intent or construction, or the incident or consequence of these Articles or of the statutes, or touching anything there or thereafter done, executed, omitted or suffered in pursuance of these Articles or of the statutes or touching any breach or alleged breach of these Articles, or any claim on account of any such breach, or alleged breach, or otherwise relating to the premises, or to these Articles or to any statute affecting the Company or to any of the affairs of the Company, every such difference shall, as a condition precedent to any other action at law be referred in conformity with the Arbitration Act, 1940, or any statutory modification thereof and any rules made there under, to the decision of an arbitrator to be appointed by the parties in difference or if they cannot agree upon a single arbitrator, to the decision of two arbitrators of whom one shall be appointed by each of the parties in difference, or in the event of the two arbitrators not agreeing, then of an umpire to be appointed by the two arbitrators, in writing, before proceeding on the reference, and such decision shall be final and binding on the parties.

We, the several persons, whose names and addresses are subscribed, are desirous of being formed into a Company in pursuance of this Articles of Association, and we respectively agree to take the number of shares in the capital of the Company indicated herein below against our respective names:

Sr. No.	Name and Surname in Full	Father's Name in Full	Nationality with any former Nationality	Occupation	CNIC Number	Residential address in full	No. of Shares	Signature
1	Saqib Hussain Shiraz	Yusuf H Shiraz	Pakistani	Business	42000-0509678-5	12 Khayaban-e-Bukhari, 5 th Street, Phase 6, DHA, Karachi	1 (One)	
2	Fahim Ali Khan	Ibrahim Ali Khan	Pakistani	Business Executive	42101-8765118-9	10-B/II, South Park Avenue, Phase II, DHA, Karachi	1 (One)	
3	Maqsood Ahmed	Chaudhry Muhammad Sadiq	Pakistani	Business Executive	45202-2632390-1	House No 197/II, EME, Thokar Niaz Bag, Lahore	1 (One)	
Total number of shares taken							3 (Three)	

Date the 13th day of May 2016

Witnesses to above signatures

National Institutional Facilitation Technologies (Pvt) Limited
5th Floor, AWT Plaza,
11 Chundrigar Road,
Karachi
Pakistan



The Companies Ordinance, 1984
COMPANY LIMITED BY SHARES

Memorandum of Association
of
ATLAS ENERGY LIMITED

- I. The name of the Company is ATLAS ENERGY LIMITED.
- II. The Registered Office of the Company will be situated in the Province of Punjab.
- III. The objects for which the Company is established are to do all or any of the following:
 1. To design, insure, build, establish, own, operate, maintain, manage electric power generating plants for the generation, supply & transmission of electric power and in relation thereto, to establish, fix, carry out and maintain without limitation, any ancillary works, cables, wires, meter, lines, overhead lines, sub stations, switching stations, interconnect facilities, grid stations, transmission facilities, civil, electrical and mechanical works, subject to approval of concern authority (National Electric Power Regulatory Authority).
 2. To carry on the business of power generation and in relation thereto, to generate, accumulate, transmit, distribute and sell electric power to the public sector, including the Water and Power Development Authority, National Transmission and Despatch Company, Government and Government bodies, and the private sector, subject to approval of concern authority (National Electric Power Regulatory Authority).
 3. To manufacture, purchase, import or otherwise acquire, construct, own, process, operate and maintain buildings, workshops, warehouses and other storage facilities, apparatus, fixtures, fittings, plants, machinery, materials, and things as may be necessary, incidental to or convenient in connection with power generating plant for the generation of electric power and or in connection with supply, transmission and distribution of electric power.
 4. To buy, sell, manufacture, repair, alter, improve, exchange or let out, import, export and deal in all works, plant, machinery, engines, tanks, cylinders, valves, regulators, testing equipment, tools, utensils, appliances, cookers, stoves, heaters, apparatus, products, materials, substances, raw materials, chemicals, natural gas (whether in vaporized form or liquefied), liquefied petroleum gas, fuel oil, coal, lubricants, articles and things and to manufacture, experiment with, render marketable and deal in all products, incidental to or obtained in the business carried on by the Company.
 5. To purchase, take on lease or tenancy or in exchange, hire, take options over or otherwise acquire for any estate or interest whatsoever and to hold, develop, work, cultivate, deal with and turn to account concessions, grants, decrees, licenses, privileges, claims, options, leases, property, real or personal or rights or powers of any kind which may appear to be necessary or convenient for the business of the Company but not to act as a leasing company or property developer.
 6. To sell, exchange, mortgage, let on royalty or tribute, grant licenses, easements, options and other rights over and in any manner deal with or dispose of the Company's property or any part thereof for such consideration as may be thought fit and in particular for stocks, shares or securities of any company but in any event not to act as an investment company or leasing company.


7. To establish laboratories and to employ and promote scientific research and invention, patronize such invention and enter into manufacture in collaboration with outside parties for transfer of technology from abroad and to promote transfer of technology from Pakistan abroad, and to carry on business in all other allied fields permissible by law.
8. To invest and deal with any surplus moneys of the Company not immediately for the time being required for any of the purposes of the Company in such investments as may be thought proper and to hold, sell or otherwise deal with such investments but in any event not to act as an investment company.
9. For the purposes of the business of the Company only, to advance money upon such terms as the Company may approve, and to guarantee the obligations and contracts of customers and others but not to act as a banking company.
10. To apply for, purchase or otherwise acquire and protect, prolong and renew whether in Pakistan or elsewhere any patents, patent rights, brevets d'invention, trade marks, design licenses, protections, concessions and the like conferring any exclusive or non-exclusive or limited right to use any secret or other information as to any invention, process or privilege which may seem capable of being used for any of the purposes of the Company or the acquisition of which may seem calculated directly or indirectly to benefit the Company and to use, exercise, develop, manufacture under grant, licenses, privileges in respect of, or otherwise turn to account the property, rights and information so acquired and to carry on any business in any way connected therewith.
11. To get insured against losses, damages, risks, accidents and liabilities of all kinds which may affect the company whether in respect of its contracts, agreements, advances or securities or in respect of servants or employees or directors of the company, or in respect of property belonging to or leased to or hired by the company, either by setting apart funds of the company or by effecting such insurance and in later case to pay the premium thereon.
12. To train personnel and workers, in Pakistan and/or abroad, to obtain technical proficiency in various specialities connected with the business of the Company.
13. To undertake and execute any project the undertaking whereof may seem desirable, and either gratuitously or otherwise.
14. To procure the Company to be registered or recognized in any foreign country or place.
15. To acquire and undertake all or any part of the business, property, goodwill and liabilities of any person or company carrying on any business which the Company is authorized to carry on or possessed of property suitable for the purposes of the Company.
16. To adopt such means of making known the business and/or services of the Company as may seem expedient and in particular by advertising in the press, or in the other media or by way of participation in exhibitions.
17. For the purposes of the Company, to purchase, manage, acquire by lease, mortgage, dispose of, sell, exchange, turn to account any part of the property and rights of the Company.
18. To employ or appoint any persons, experts, consultants, advisers, contractors (including O&M contractors), brokers in connection with the business of the Company.
19. To pay for any property or rights acquired by the Company, either in cash or fully paid shares or by the issue of securities, or partly in one mode and partly in another and generally on such terms as may be determined.

20. Only in connection with the business of the Company to open and operate any current, overdraft, loan, fixed or savings bank accounts for the Company, and draw, make, accept, discount, endorse, execute and issue promissory notes, bills of exchange, bills of lading and other negotiable or transferable instruments or securities and to advance money to the Company's executives, officers and employees/agents/customers and others having dealings with the company but in any event not to act as an investment, banking or finance company.
21. In connection with the business of the Company only, to give guarantees and indemnities for the payment of money or the performance of contracts or obligations by this Company but in any event not to act as an investment, banking or finance company.
22. To borrow and where required, to secure the payment of money in such manner as the Company shall think fit and in particular by the creation of mortgages and charges over the (present and future) property, assets and/or undertaking of the Company and/or by issue of debentures, participation term certificates, term finance certificates and other securities charged upon all or any of the Company's property both present and future, and to purchase, redeem and pay off any such securities.
23. To take, or otherwise acquire, and hold shares in any other company having objects altogether or in part similar to those of this Company or carrying on any business capable of being conducted so as directly or indirectly to benefit this Company but in any event not to act as an investment company.
24. To enter into partnership or into any agreement or agreements for sharing profits, union of interests, cooperation, joint venture, reciprocal concession and/or facilities with any person or company whether or not having objects similar to those of this Company but in any event not to act as managing agents.
25. So far as is permissible in law, to establish, maintain and/or contribute to any pension, superannuation, death benefits, funds or schemes for the benefit of, and to give, award or procure the giving or awarding, of donations, pensions, gratuities, allowances, annuities, emoluments or other benefits whatsoever to any persons who are or have at any time been in the employment or service of the Company or of any company which is its holding or which is a subsidiary of either the Company or any such holding company or of any company which is otherwise allied to or associated with the Company, or who are or have at any time been Directors or officers (or held comparable or equivalent offices) of the Company or of any or of any such other company, and also to the wives, widows, families and dependents of any such persons; to establish, subsidise or subscribe to any institutions, associations, clubs or funds which may be considered likely to benefit all or any such persons; to make payments for or towards the insurance of any such persons; to establish, support and maintain any form of profit-sharing, share purchase, share incentive, share option or employees' share scheme for any such persons eligible to participate in them or benefit from them (or to trustees on their behalf) for the purposes of or in connection with the operation and enjoyment of any such scheme.
26. To enter into any agreement or agreements with any government or other authority, supreme, municipal, local or otherwise, that may seem conducive to all or any of the objects of the Company and/or to obtain from such government or authority including the State Bank of Pakistan or National Electric Power Regulatory Authority (NEPRA) any rights, concessions or privileges, licenses which the Company may think desirable to obtain and to carry out, exercise and comply with any such arrangements, rights, privileges, concessions and licenses.
27. To pay all or any costs charges and expenses preliminary and incidental to the promotion, formation, establishment and registration of the Company and to pay any development costs incurred (whether before or after the incorporation of the Company) by the sponsors of the Company in connection with any project of the Company.

28. To pay brokerage or commission to any person or persons in consideration of his/her subscribing, or agreeing to subscribe, whether absolutely or conditionally, for any shares or debentures of the Company, or for procuring or agreeing to procure subscriptions whether absolute or conditional for the same which brokerage or commission may be paid either in cash or shares of the Company, credited as fully paid up.
 29. To amalgamate, consolidate, or merge, either in whole or in part, with or into any other companies, associations, firms or persons carrying on any trade or business of a similar nature to that which this Company is authorized to carry on.
 30. To resolve, settle disputes by negotiation, conciliation, mediation, arbitration, litigation or other means, judicial or extra judicial, and to enter in compromise agreement with creditors, members and any other persons in respect of a difference or dispute with them and to exercise the power to sue and be sued and to initial or oppose all actions, steps, proceedings or application which may seem calculated directly or indirectly to benefit or prejudice, as the case may be, the interest of the Company or of its members.
 31. To do all or any of the things herein in any part of the world either as principals, agents, contractors or otherwise, and either alone or in conjunction with others but in any event not to act as managing agents.
 32. To provide engineering, construction, consultancy and design services and radio and other communication systems and services, and any facilities, equipment and installations whether related to such services and systems or otherwise, subject to permission of concern authority.
 33. To carry on any other business whether manufacturing or otherwise that may seem to the Company capable of being conveniently carried on in connection with the above objects or calculated directly or indirectly to enhance the value of or render profitable any of the Company's property or rights or which it may be advisable to undertake with a view to improving, developing, rendering or turning to account any property real or personal belonging to the Company or in which the Company may be interested and to do all or any of the above things either as principals, agents, contractors or otherwise, and either alone or in conjunction with others and either by or through agents, sub-contractors, trustees or otherwise, and to do all such things as are incidental or conducive to the attainment of the above objects but in any event not to act as managing agents.
 34. To do all and everything necessary, suitable or proper or incidental or conducive to the accomplishment of any of the purposes or the attainment of any of the objects or the furtherance of any of the powers hereinbefore set forth, either alone or in association with other corporate bodies, firms or individuals or with any Government authority or public or quasi-public authority or any other authority, and to do every other act or thing incidental or appertinent to or arising out of or connected with the business or powers of the Company or part thereof, provided the same be lawful.
 35. IT IS HEREBY UNDERTAKEN that the Company shall not engage in the banking business or Forex, illegal brokerage, business of a finance, investment, leasing or insurance company, or non-banking finance company or as a modaraba management company, or the business of land development or a managing agency or any unlawful business and that nothing in the objects clause shall be construed to entitle it to engage in such business directly or indirectly. The Company shall not launch multi-level marketing (MLM), Pyramid or Ponzi schemes.
 36. Notwithstanding any thing stated in any object clause, the company shall obtain such other approval or license from the competent authority, as may be required under any law for the time being in force, to undertake a particulars business.
- IV. The liability of the Members is limited.

- V. The authorized capital of the Company is Rs. 10,000,000 (Rupees ten million) divided into 1,000,000 (One million) shares of Rs. 10 (Pak Rupees Ten) each, with power of the Company, specifically, to increase the authorized share capital to include a further issue including of preference shares and generally, to increase or reduce the capital and to divide the shares in the capital for the time being into several classes in accordance with the provisions of the Companies Ordinance, 1984 and any rules made there under, and to attach thereto respectively such preferential, deferred, qualified or special rights, privileges or conditions as may be determined by or in accordance with the Articles of Association of the Company for the time being, and to vary, modify or abrogate any such rights, privileges or conditions in such manner as may for the time being be provided by the Articles of Association of the Company in accordance with law.

We, the several persons, whose names and addresses are subscribed below, are desirous of being formed into a Company in pursuance of this Memorandum of Association, and we respectively agree to take the number of shares in the capital of the Company indicated herein below against our respective names:

Sr. No.	Name and Surname in Full	Father's Name in Full	Nationality with any former Nationality	Occupation	CNIC Number	Residential address in Full	No. of Shares	Signature
1	Saqib Hussain Shraazi	Yusuf H Shraazi	Pakistan	Business	42000-0509678-5	12 Khayaban-e-Bukhari, 5 th Street, Phase 6, DHA, Karachi	1 (One)	
2	Fahim Ali Khan	Ibrahim Ali Khan	Pakistani	Business Executive	42101-8705118-9	10-B/H, South Park Avenue, Phase II, DHA, Karachi	1 (One)	
3	Maqsood Ahmed	Chaudhry Muhammad Sadiq	Pakistani	Business Executive	15202-2612390-1	House No 197/B, EMB, Thukat Niaz Bag, Lahore	1 (One)	
Total Number of shares taken							3 (Three)	

Date the 13th day of May 2016

Witnesses to the above signature

National Institutional Facilitation Technologies (Private) Limited
5th Floor, AWT Plaza,
11. Chundrigar Road,
Karachi
Pakistan



3(4)(c)(i)(c) * certified copies of annual reports of the company

ATLAS ENERGY LIMITED
AUDITED FINANCIAL STATEMENTS
FOR THE YEAR ENDED JUNE 30, 2023

Independent Auditor's Report To The Members Of Atlas Energy Limited

Report on the Audit of the Financial Statements

Opinion

We have audited the annexed financial statements of **Atlas Energy Limited** (the Company), which comprise the statement of financial position as at June 30, 2023, the statement of profit or loss and other comprehensive income, the statement of changes in equity, the statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies and other explanatory information, and we state that we have obtained all the information and explanations which, to the best of our knowledge and belief, were necessary for the purposes of the audit.

In our opinion and to the best of our information and according to the explanations given to us, the statement of financial position, the statement of profit or loss and other comprehensive income, the statement of changes in equity and statement of cash flows together with the notes forming part thereof conform with the accounting and reporting standards as applicable in Pakistan and give the information required by the Companies Act, 2017 (XIX of 2017), in the manner so required and respectively give a true and fair view of the state of the Company's affairs as at June 30, 2023 and of the profit, other comprehensive income, the changes in equity and its cash flows for the year then ended.

Basis for Opinion

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

Information Other than the Financial Statements and Auditors' Report thereon

Management is responsible for the other information presented along with the financial statements and the auditors' report thereon. With respect to the Company the other information comprises only the Director's Report on the operations of the Company.

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

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

Principal Office:

HM House
7-Bank Square, Lahore.
Tel: +92 42 37235084-87
Email: hr@hccpk.com

Other Offices:

Karachi, Islamabad & Multan

Responsibilities of Management and Board of Directors for the Financial Statements

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

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

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

Auditors' Responsibilities for the Audit of the Financial Statements

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

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

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

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

Report on Other Legal and Regulatory Requirements

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

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

Other Matter

The financial statements for the Company for the year ended June 30, 2022 were audited by another firm of chartered accountants who expressed unmodified opinion on those financial statements on September 29, 2022.

The Engagement partner on the audit resulting in this independent auditors' report is Osman Hameed Chaudhri.

LAHORE; August 23, 2023
UDIN: AR202310104NXURzGVW3

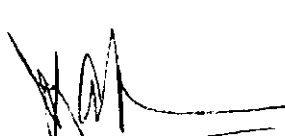
Shinewing Hameed Chaudhri & Co.
SHINEWING HAMEED CHAUDHRI & CO.,
CHARTERED ACCOUNTANTS

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ATLAS ENERGY LIMITED
STATEMENT OF FINANCIAL POSITION
AS AT JUNE 30, 2023

	Note	2023 ----- Rupees -----	2022
ASSETS			
Non-current assets			
Plant and equipment	4	474,517,025	729,049,333
Current assets			
Trade debts	5	17,664,483	6,708,522
Inventory	6	9,780,216	25,183,604
Loans and advances	7	18,560,474	2,454,560
Other receivables	8	48,324,951	63,658,645
Short term investments	9	70,076,729	4,844,867
Cash and bank balances		2,782,986	15,266,680
		167,189,839	118,116,878
Total assets		641,706,864	847,166,211
EQUITY AND LIABILITIES			
Share capital and reserves			
50,000,000 (2022: 50,000,000) ordinary shares of Rs. 10/- each		500,000,000	500,000,000
7,400,003 (2022: 7,400,003) ordinary shares of Rs. 10/- each		74,000,030	74,000,030
Unappropriated profits		193,631,929	100,463,439
		267,631,959	174,463,469
Liabilities			
Non-current liabilities			
Long term financing	10	241,784,000	414,588,000
Security deposit	11	28,000,000	28,000,000
		269,784,000	442,588,000
Current liabilities			
Accrued mark-up		2,895,391	6,638,700
Current portion of long term financing	10	38,517,000	20,304,000
Contract liability	12	-	69,414,802
Project payable		-	110,006,649
Trade and other payables	13	48,130,165	11,930,750
Provision for taxation		14,748,349	11,819,841
		104,290,905	230,114,742
Total liabilities		374,074,905	672,702,742
Contingencies and commitments	14		
Total equity and liabilities		641,706,864	847,166,211

The annexed notes form an integral part of these financial statements.


Chairman / Director


Chief Executive Officer


Chief Financial Officer

ATLAS ENERGY LIMITED
STATEMENT OF PROFIT OR LOSS &
OTHER COMPREHENSIVE INCOME
FOR THE YEAR ENDED JUNE 30, 2023

	Note	2023 ----- Rupees -----	2022
Revenue from contracts with customer - net	15	354,840,501	201,039,748
Cost of sales	16	(192,391,958)	(115,361,365)
Gross profit		162,448,543	85,678,383
Administrative expenses	17	(5,764,662)	(2,291,030)
Finance cost	18	(41,868,176)	(7,437,175)
Other income	19	8,785,246	4,124,077
Other expenses		(14,165,828)	-
Profit before taxation		109,435,123	80,074,255
Taxation	21	(16,266,633)	(12,684,438)
Profit after taxation		93,168,490	67,389,817
Other comprehensive income		-	-
Total comprehensive income		93,168,490	67,389,817

The annexed notes form an integral part of these financial statements.


Chairman / Director




Chief Executive Officer


Chief Financial Officer

ATLAS ENERGY LIMITED
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED JUNE 30, 2023

	Note	2023 ----- Rupees -----	2022
CASH FLOWS FROM OPERATING ACTIVITIES			
Cash (used in) / generated from operations	22	(24,531,019)	229,845,161
Taxes paid		(13,338,125)	(873,005)
Net cash (used in) / generated from operating activities		(37,869,144)	228,972,156
CASH FLOWS FROM INVESTING ACTIVITIES			
Fixed capital expenditure		(31,015,234)	(494,540,081)
Sale proceeds of operating fixed assets		256,567,627	-
Net cash generated from / (used in) investing activities		225,552,393	(494,540,081)
CASH FLOWS FROM FINANCING ACTIVITIES			
Long term finances - obtained		119,500,000	252,196,000
- repaid		(274,091,000)	
Finance cost paid		(45,575,943)	(2,750,990)
Security deposit		-	28,000,000
Net cash (used in) / generated from financing activities		(200,166,943)	277,445,010
Net (decrease) / increase in cash and cash equivalents		(12,483,694)	11,877,085
Cash and cash equivalents - at beginning of the year		15,266,680	3,389,595
Cash and cash equivalents - at end of the year		2,782,986	15,266,680

The annexed notes form an integral part of these financial statements.

Chairman / Director

Chief Executive Officer

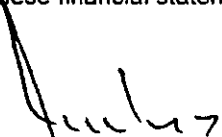
Chief Financial Officer

ATLAS ENERGY LIMITED
STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED JUNE 30, 2023

	Share capital	Unappropriated profit	Total
	----- Rupees -----		
Balance as at July 01, 2021	74,000,030	33,073,622	107,073,652
Total comprehensive income for the year:			
Profit after taxation	-	67,389,817	67,389,817
Other Comprehensive income	-	-	-
	-	67,389,817	67,389,817
Balance as at June 30, 2022	74,000,030	100,463,439	174,463,469
Balance as at July 01, 2022	74,000,030	100,463,439	174,463,469
Total comprehensive income for the year:			
Profit after taxation	-	93,168,490	93,168,490
Other Comprehensive income	-	-	-
	-	93,168,490	93,168,490
Balance as at June 30, 2023	74,000,030	193,631,929	267,631,959

The annexed notes form an integral part of these financial statements.


Chairman / Director 


Chief Executive Officer


Chief Financial Officer

ATLAS ENERGY LIMITED
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED JUNE 30, 2023

1. LEGAL STATUS AND OPERATIONS

Atlas Energy Limited hereafter referred as "the Company" was incorporated as an unquoted - public limited company in Pakistan on May 18, 2016, under the repealed Companies Ordinance, 1984 (now the Companies Act, 2017).

The purpose of Atlas Energy Limited is to provide cost effective solar solutions for industrial and commercial consumers.

Shirazi Investments (Private) Limited - holding company held 100% (2022:100%) ordinary shares of the Company.

1.1 Geographical location and address of major business units including mills / plant of the Company are as under:

Lahore

64/XX, Khayaban -e- Iqbal, DHA Phase III.

Purpose

Registered office

Karachi

2nd Floor, Federation House, Shahra-e-Fardousi,
Main Clifton.

Branch office

2. BASIS OF PREPARATION AND SIGNIFICANT ACCOUNTING POLICIES

2.1 Statement of compliance

These financial statements have been prepared in accordance with the accounting and reporting standards as applicable in Pakistan. The accounting and reporting standards applicable in Pakistan comprise of:

- International Financial Reporting Standards (IFRS Standards) issued by the International Accounting Standards Board (IASB) as notified under the Companies Act, 2017 (the Act);
- Islamic Financial Accounting Standards (IFAS) issued by the Institute of Chartered Accountants of Pakistan as notified under the Act; and
- Provisions of and directives issued under the Companies Act, 2017.

Where provisions of and directives issued under the Companies Act, 2017, differ with the requirements of IAS 34, the provisions of and directives issued under the Companies Act, 2017 have been followed.

2.2 Basis of measurement

These financial statements have been prepared under the historical cost convention.

2.3 Functional and presentation currency

These financial statements are presented in Pakistan Rupees, which is the Company's functional and presentation currency. All financial information presented in Pakistan Rupees has been rounded to the nearest rupees unless otherwise specified.

2.4 INITIAL APPLICATION OF STANDARDS, AMENDMENTS OR INTERPRETATIONS TO EXISTING STANDARDS

2.4.1 Standards, amendments to approved accounting standards effective in current year and have been adopted by the Company

The accounting policies adopted in the preparation of these financial statements are consistent with those of the previous financial year, except for change resulted due to adoption of amendments to accounting standards. The below mentioned amendments to approved accounting standards are effective for the financial year beginning on July 01, 2022 and have been adopted by the Company:

a) IAS 37 Provisions, Contingent Liabilities and Contingent Assets

Under IAS 37, a contract is 'onerous' when the unavoidable costs of meeting the contractual obligations – i.e. the lower of the costs of fulfilling the contract and the costs of terminating it – outweigh the economic benefits. The amendments clarify that the 'costs of fulfilling a contract' comprise both the incremental costs – e.g. direct labor and materials; and an allocation of other direct costs – e.g. an allocation of the depreciation charge for an item of property, plant and equipment used in fulfilling the contract.

b) IAS 16 Property, Plant and Equipment

Amendment to IAS 16 (regarding proceeds before an asset's intended use) prohibit a company from deducting from the cost of property, plant and equipment amounts received from selling items produced while the Company is preparing the asset for its intended use. Instead, a Company will recognise such sales proceeds and related cost in profit or loss. The amendments apply retrospectively, but only to items of PPE made available for use on or after the beginning of the earliest period presented in the financial statements in which the Company first applies the amendments.

The adoption of the above amendments to accounting standards did not have any material effect on the financial statement of the Company.

2.4.2 Standards, amendments to approved accounting standards and interpretations that are not yet effective and have not been early adopted by the Company**a) IAS 1 Presentation of Financial Statements****Effective: January 01, 2024**

The amendments clarify how to classify a debt and other liabilities as current or non-current. The IASB issued amendments to IAS 1 to specify the requirements for classifying liabilities as current or non-current. The amendments clarify the following:

- what is meant by a right to defer settlement;
- that a right to defer must exist at the end of the reporting period;
- that classification is unaffected by the likelihood that an entity will exercise its deferral right; and
- only covenants with which an entity is required to comply on or before the reporting date affect the classification of a liability as current or non-current. In addition, an entity has to disclose information in the notes that enables users of financial statements to understand the risk that non-current liabilities with covenants could become repayable within twelve months.

b) IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors**Effective: January 01, 2023**

The amendments clarify the distinction between changes in accounting estimates and changes in accounting policies and the correction of errors. The amendments introduce a new definition for accounting estimates clarifying that they are monetary amounts in the financial statements that are subject to measurement uncertainty. The amendments also clarify the relationship between accounting policies and accounting estimates by specifying that a Company develops an accounting estimate to achieve the objective set out by an accounting policy. The amendments will apply prospectively to changes in accounting estimates and changes in accounting policies occurring on or after the beginning of the first annual reporting period in which the company applies the amendments.

c) IAS 1 Presentation of Financial Statements**Effective: January 01, 2023**

Amendments to IAS 1, 'Presentation of Financial Statements' includes requiring companies to disclose their material accounting policies rather than their significant accounting policies, clarifying that accounting policies related to immaterial transactions, other events or conditions are themselves immaterial and as such need not be disclosed and also clarifying that not all accounting policies that relate to material transactions, other events or conditions are themselves material to a Company's financial statements.

The Company has assessed that the impact of above amendments is not expected to be significant.

There are number of other standards, amendments and interpretations to the approved accounting standards that are not yet effective and are also not relevant to the Company and therefore, have not been presented here.

2.5 Critical accounting estimates and judgements

The preparation of financial statements in conformity with approved accounting standards requires management to make judgments, estimates and assumptions that affect the application of policies and the reported amount of assets, liabilities, income and expenses. Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The Company makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. Judgments, estimates and assumptions made by the management that may have a significant risk of material adjustment to the financial statements in the subsequent year are as follows;

(a) Plant and equipment

The Company reviews appropriateness of the rates of depreciation, useful lives and residual values for calculation of depreciation on an on-going basis. Further, where applicable, an estimate of recoverable amount of asset is made if indicators of impairment are identified.

(b) Inventory

The Company estimates the net realizable value of equipment inventory to assess any diminution in the carrying value. Net realizable value is determined with reference to estimated selling price less estimated expenditure to make sale. Provision is made in the financial statements for obsolete and slow moving stock-in-trade based on management estimate.

3. SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all the years presented.

3.1 Plant and equipment**Owned assets**

Plant and equipment are stated at cost less accumulated depreciation.

Depreciation

Depreciation on all items of plant and equipment except for vehicles is charged to statement of profit or loss applying the straight line method. Vehicles are depreciated using the reducing balance method so as to write off historical cost of an asset over its estimated useful life. Rates of depreciation is stated in note 4.1.

Depreciation on addition in plant and equipment is charged from the date of addition while no depreciation is charged in the date of disposal. The Company reviews the useful life and residual value of plant and equipment on a regular basis. Any change in estimates in future years might affect the carrying amounts of the respective items of plant and equipment with a corresponding effect on depreciation charge.

Disposal

Gains or losses on disposal or retirement of fixed assets are determined as the difference between the sale proceeds and the carrying amount of assets and are included in the statement of profit or loss.

Capital work-in-progress

Capital work-in-progress is stated at cost accumulated up to the statement of financial position date less accumulated impairment losses, if any. Capital work-in-progress is recognized as an operating fixed asset when it is made available for intended use.

Impairment

The carrying amounts of assets are reviewed at each statement of financial position date to determine whether there is any indication of impairment of any asset or a group of assets. If any such indication exists, the recoverable amount of that asset is estimated and impairment losses are recognized in the profit and loss account.

3.2 Right-of-use assets and lease liability

As per IFRS 16, the Company has to recognize right to use assets and a corresponding lease liability. The lease liability will be measured at the present value of the consideration (lease payments) to be made over the lease term. The lease payments will be discounted using the interest rate implicit in the lease, unless it is not readily determinable, in which case the Company may use the incremental rate of borrowing. The right-of-use asset is initially measured at the present value of lease liability and adjusted for lease prepayments/accruals and borrowing costs.

The right-of-use assets recognized subsequent to the adoption are measured based on the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred. The right-of-use assets are depreciated over the lease term using a straight line basis as it closely reflects the expected pattern of consumption of future economic benefits. The right-of-use assets are reduced by impairment losses, if any, and adjusted for certain re-measurements of lease liability.

3.3 Financial assets

Initial measurement

The Company classifies its financial assets in the following three measurement categories:

- fair value through other comprehensive income (FVTOCI);
- fair value through profit or loss (FVTPL); and
- measured at amortized cost.

A financial asset is initially measured at fair value plus, for an item not at FVTPL, transaction costs that are directly attributable to its acquisition.

Subsequent Measurement

- ***Equity Instruments at FVTOCI***

These assets are subsequently measured at fair value. Dividends are recognized as income in the statement of profit or loss. Other net gains and losses are recognized in statement of other comprehensive income and are never reclassified to the statement of profit or loss.

- ***Debt Instruments at FVTOCI***

These assets are subsequently measured at fair value. Interest / mark-up income calculated using the effective interest method, foreign exchange gains and losses and impairment are recognized in the statement of profit or loss. Other net gains and losses are recognized in statement of other comprehensive income. On derecognition, gains and losses accumulated in statement of other comprehensive income are reclassified to the statement of profit or loss.

- ***Debt Instruments at FVTPL***

These assets are subsequently measured at fair value. Net gains and losses, including any interest / mark-up or dividend income, are recognized in the statement of profit or loss.

- ***Financial Assets measured at amortised cost***

These assets are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest / mark-up income, foreign exchange gains and losses and impairment are recognized in the statement of profit or loss.

Derecognition

Financial assets are derecognized when the rights to receive cash flows from the financial assets have expired or have been transferred and the Company has transferred substantially all risks and rewards of ownership.

3.4 Trade debts and other receivables and related impairment

Trade debts and other receivables are recognized when an unconditional right to amount of consideration is established.

Trade debts are measured at the transaction price measured under IFRS 15. A loss allowance is recognized for trade debts based on lifetime expected credit losses at each reporting date based on Company's historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

Other receivables are initially recognized at fair value and subsequently measured at amortized cost using the effective interest method, less expected credit losses as explained in note 3.3. The trade debts mainly comprise of a balances with related parties which are considered as good and having no impact of expected credit loss.

3.5 Equipment inventory

Equipment inventory is valued principally at lower of weighted average cost and net realizable value except for the item in transit stated at invoice value plus other charges thereon till the reporting date, while item considered obsolete are carried at nil value.

Net realizable value signifies the estimated selling price in the ordinary course of business less costs necessarily to be incurred in order to make the sale. Provision is made in the financial statements for obsolete and slow moving stock-in-trade based on management estimate.

3.6 Impairment

(a) Financial assets

The Company recognizes an allowance for expected credit losses ("ECL") for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Company expects to receive. The shortfall is then discounted at an approximation to the asset's original effective interest rate.

ECLs are recognized in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12-months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

The Company considers a financial asset in default when contractual payments are 60 days past due. However, in certain cases, the Company may also consider a financial asset to be in default when internal or external information indicates that the Company is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Company. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

For trade debts, the Company applies a simplified approach in calculating ECLs based on lifetime expected credit losses. The Company has established a provision matrix that is based on the Company's historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment. The expected credit losses are recognized in the statement of profit or loss.

For bank balances, the Company applies a simplified approach in calculating ECLs based on lifetime expected credit losses. The Company reviews internal and external information available for each bank balance to assess expected credit loss and the likelihood to receive the outstanding contractual amount. The expected credit losses are recognized in the statement of profit or loss.

(b) Non-financial assets

The carrying amounts of the Company's non-financial assets are reviewed at each reporting date to identify circumstances indicating occurrence of impairment loss or reversal of provisions for impairment losses. If any indications exist, the recoverable amounts of such assets are estimated and impairment losses or reversals of impairment losses are recognized in the statement of profit or loss. Reversal of impairment loss is restricted to the original cost of the asset.

3.7 Financial liabilities**Initial measurement**

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognized initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

The Company's financial liabilities include long term loans, creditors, accrued and other liabilities.

Subsequent Measurement

After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortized cost using the EIR method. Gains and losses are recognized in profit or loss when the liabilities are derecognized as well as through the EIR amortization process.

Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included as finance costs in the statement of comprehensive income.

This category applies to long term loans, short term borrowings utilized under mark-up arrangements, creditors, liabilities against assets subject to finance lease, accrued and other liabilities.

Derecognition

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in the statement of profit or loss.

3.8 Cash and cash equivalents

Cash and cash equivalents are defined as cash in hand, cash at banks and short-term highly liquid investments that are readily convertible to known amounts of cash and subject to insignificant risk of changes in value. For the purpose of cash flow statement, cash and cash equivalents comprise bank balances including short-term deposits net of bank overdraft, if any.

3.9 Contract asset

A contract asset is the right to consideration in exchange for goods or services transferred to the customer. If the Company performs by transferring goods or services to a customer before the customer pays consideration or before payment is due, a contract asset is recognized for the earned consideration that is conditional.

3.10 Contract liabilities

A contract liability is the obligation to transfer goods or services to a customer for which the Company has received consideration (or an amount of consideration is due) from the customer. If a customer pays consideration before the Company transfers goods or services to the customer, a contract liability is recognized when the payment is made or the payment is due (whichever is earlier). Contract liabilities are recognized as revenue when the Company performs under the contract.

3.11 Borrowings

Borrowings are recorded at the proceeds received. Financial charges are accounted for on accrual basis and are included in mark up accrued on loans to the extent of amount remaining unpaid, if any.

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use, are added to the cost of those assets until such time as the assets are substantially ready for their intended use. All other borrowing costs are charged to the income statement, in the period in which these are incurred.

3.12 Trade and other payables

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

3.13 Provisions

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

3.14 Taxation

Income tax on profit and loss for the year comprises current and deferred tax.

Current

Profit and gains derived by the Company from the power generation project are exempt from the tax under Clause (132) of Part I of the Second Schedule to the Income Tax Ordinance, 2001. The Company is also exempt from the minimum tax on the turnover under Clause 11A (v) of the Part IV of the Second Schedule to the Income Tax Ordinance, 2001.

However, provision for current taxation on profits and gains other than from power generation project is based on taxable income at current rates of taxation after taking into account tax credits and rebates available, if any, in accordance with the provision of the Income Tax Ordinance, 2001. It also includes any adjustment to tax payable in respect of prior years.

Deferred

As the Company's revenue is exempt from tax, therefore no deferred tax has been recognized in these financial statements.

3.15 Revenue Recognition**Revenue recognition policy**

The Company is in the business of power generation and sale of energy. Revenue from contract with customer is recognized when control of the goods are transferred to the customer at an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods or services. Specific revenue recognition details are as follows:

Sale of energy

Revenue from the sale of energy is recognized upon the transfer of control of the goods to the buyer when performance obligation is satisfied, which refers to the transmission of Net Electrical Output (NEO) to customer through solar solution installed at premises of customer, as agreed in the Agreements for sale and purchase of electricity.

Determining the timing of satisfaction of performance obligations

The Company concluded that revenue from electricity is to be recognized at over time because the electricity element represents a promise to transfer a series of distinct goods that are substantially the same and that have the same pattern of transfer to the customer; therefore the electricity represents one performance obligation that is satisfied over time. Further, electricity is distinct and the buyer simultaneously receives and consumes the benefit provided by the Company.

Sale of equipment

Revenue from the sale of equipment is recognized upon the transfer of control of the goods to the buyer when performance obligation is satisfied, which refers to the transfer of equipment to the customer.

Determining the timing of satisfaction of performance obligations

The Company concluded that revenue from sale of equipment is to be recognized at a point in time when the asset is actually transferred to the customer. The transfer of equipment to the customer represents a single performance obligation. Therefore, revenue is recognized when the control of the asset is transferred to the customer.

Provision of engineering and installation services

Revenue from the provision of engineering and installation services is recognized when the equipment is installed at the customer premises and performance obligation is satisfied, which refers to the provision of installation services related to equipment sold by the Company.

Determining the timing of satisfaction of performance obligations

The Company concluded that revenue from provision of engineering and installation services is to be recognized at a point in time when the asset is actually installed at the customer premises by the company. The provision of engineering and installation services to the customer represents a single performance obligation. Therefore, revenue is recognized when the services are performed.

3.16 Offsetting of financial assets and financial liabilities

A financial asset and a financial liability is offset and the net amount is reported in the statement of financial position if the Company has a legally enforceable right to set-off the recognized amounts and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

4. PLANT AND EQUIPMENT

	Note	2023	2022
		- - - Rupees - - -	
Operating fixed assets	4.1	455,762,888	729,049,333
Capital work in progress	4.4	18,754,137	-
		<u>474,517,025</u>	<u>729,049,333</u>

4.1 Operating fixed assets

	Plant and equipment	Computers	Vehicles	Total
	----- Rupees -----			
Cost				
Balance as at July 01, 2021	259,438,289	119,500	-	259,557,789
Additions during the year	494,363,415	176,666	-	494,540,081
Balance as at June 30, 2022	753,801,704	296,166	-	754,097,870
Balance as at July 01, 2022	753,801,704	296,166	-	754,097,870
Additions during the year	-	240,000	12,021,097	12,261,097
Disposals during the year	(263,917,526)	-	(587,200)	(264,504,726)
Balance as at June 30, 2023	489,884,178	536,166	11,433,897	501,854,241
Depreciation				
Balance as at July 01, 2021	12,871,008	73,027	-	12,944,035
Charge for the year	12,025,410	79,092	-	12,104,502
Balance as at June 30, 2022	24,896,418	152,119	-	25,048,537
Balance as at July 01, 2022	24,896,418	152,119	-	25,048,537
Charge for the year	26,633,168	132,194	2,214,553	28,979,915
On disposals during the year	(7,917,526)	-	(19,573)	(7,937,099)
Balance as at June 30, 2023	43,612,060	284,313	2,194,980	46,091,353
Book value as at June 30, 2022	728,905,286	144,047	-	729,049,333
Book value as at June 30, 2023	446,272,118	251,853	9,238,917	455,762,888
Depreciation rate (%)	4	33	20	

- 4.1.1 The Company has purchased vehicles from Atlas Honda Limited (a related party) of Rs.5.34 million and Atlas Power Limited (a related party) of Rs. 3.92 million (2022: Rs. Nil).
- 4.1.2 This represents assets installed at Atlas Honda Limited (AHL), a related party, for the purpose of generation of solar based energy for the duration of solar energy agreement.
- 4.1.3 The cost of plant and equipment includes provision for equipment restoration amounting to Rs. 5.588 million (2022: Rs. 5.588 million).
- 4.1.4 There are fully depreciated assets having cost of Rs.119,500 that are still in use as at year end.

4.2 Depreciation for the year has been apportioned as under:	2023	2022
	--- Rupees ---	
Cost of sales	28,847,721	12,025,410
Administrative expenses	132,194	79,092
	<u>28,979,915</u>	<u>12,104,502</u>

4.3 Disposal of Operating Fixed Assets

Particulars of assets	Cost	Accumulated depreciation	Net book value	Sale proceeds	Gain	Mode of disposal	Sold to:
	----- Rupees -----						
Assets having net book value exceeding Rs.500,000 each							
Vehicles							
Suzuki Cultus	587,200	19,573	567,627	567,627	-	Company policy	Mr. Tanzil Ur Rahman (Employee)
Plant and equipment							
Solar Modules	263,917,526	7,917,526	256,000,000	256,000,000	-	Negotiation	Atlas Honda Limited (a related party)
2023	<u>264,504,726</u>	<u>7,937,099</u>	<u>256,567,627</u>	<u>256,567,627</u>	<u>.</u>		
2022	<u>-</u>	<u>.</u>	<u>-</u>	<u>-</u>	<u>.</u>		

4.4 Capital work-in-progress	Note	2023	2022
		--- Rupees ---	
Opening balance as at 1 July		-	-
Addition during the year	4.4.1	18,754,137	494,363,415
Transfer to operating fixed assets		-	(494,363,415)
Closing balance as at 30 June		<u>18,754,137</u>	<u>-</u>

- 4.4.1 Preceding years additions to capital work-in-progress includes borrowing costs for phase 03 project determined using an average capitalization rate of 14.08% amounting to Rs. 4.873 million.

5. TRADE DEBTS – unsecured

- 5.1 This relates to an amount receivable from Atlas Honda Limited (a related party). The maximum aggregate amount outstanding at any time during the year was Rs.17.664 million(2022: Rs.6.709 million).
- 5.2 Aging of balance due but not impaired:

	2023	2022
	--- Rupees ---	
0-3 months	<u>17,664,483</u>	<u>6,708,522</u>

6.	INVENTORY		2023	2022
		Note	--- Rupees ---	
	Equipment inventory		9,268,098	9,413,455
	Work in progress	6.1	512,118	15,770,149
			<u>9,780,216</u>	<u>25,183,604</u>
6.1	This includes stock held by related parties amounting to Rs. 9.268 million (2022: 17.800 million).			
7.	LOANS AND ADVANCES - unsecured considered good		2023	2022
		Note	--- Rupees ---	
	Advance tax		17,488,018	2,065,106
	Loans and advances to employees		1,072,456	389,454
			<u>18,560,474</u>	<u>2,454,560</u>
8.	OTHER RECEIVABLES - considered good			
	Sales tax receivable		46,513,764	63,658,645
	Profit receivable		85,887	-
	Security deposits		1,725,300	-
			<u>48,324,951</u>	<u>63,658,645</u>
9.	SHORT TERM INVESTMENT			
	Investment in mutual funds	9.1	45,076,729	3,844,867
	Investment in term deposit receipts	9.2	25,000,000	1,000,000
			<u>70,076,729</u>	<u>4,844,867</u>
9.1	This represents investment in mutual funds managed by Atlas Asset Management Limited (a related Party), the breakup of the investment is as follows:			
	Related parties:			
			2023	2022
			---- Units ----	--- Rupees ---
	Atlas income funds		9.336	6.809
	Atlas Money Market Funds		88,635.656	7,568.966
			<u>45,071,833</u>	<u>3,841,303</u>
			<u>45,076,729</u>	<u>3,844,867</u>
9.1.1	The fair value of these investments has been determined using their respective net assets value, published by Mutual Funds Association of Pakistan (MUFAP) on its website at the reporting date.			
9.2	This represents an investment in term deposits with Habib Bank Limited (a commercial bank) having maturity of 1 year and carrying markup at 18.66% (2021: 6%) per annum.			
10.	LONG TERM FINANCING - Secured		2023	2022
		Note	--- Rupees ---	
	Habib Bank Limited			
	- Long term finance facility - phase 1	10.1	52,144,000	59,596,000
	- Long term finance facility - phase 2	10.1	93,157,000	102,796,000
	- Long term finance facility - phase 3	10.2	135,000,000	272,500,000
			<u>280,301,000</u>	<u>434,892,000</u>
	Less: current portion grouped under current liabilities		38,517,000	20,304,000
			<u>241,784,000</u>	<u>414,588,000</u>

10.1 The Company has arranged long term finance facility amounting Rs.270 million from Habib Bank Limited under SBP Financing Scheme for Renewable Energy. The bank against the said facility disbursed Rs.203 million in three tranches of different amounts. The loan is repayable in 40 equal quarterly installments. These finances carry mark-up at the SBP rate plus 1% and are secured against first charge over all present and future current and non-current assets of the Company with the margin of 10% and 20% respectively.

10.2 The Company, during the preceding year, has arranged long term finance facility amounting Rs.272.5 million having a total limit of PKR 400 million including loan from SBP under Green Financing Facility of Rs.150 million repayable in 40 equal quarterly instalments. This facility has obtained by the Company for the purpose of financing the capital expenditure. This facility is secured by current and non-current assets of the Company with the margin of 20%. The rate of mark-up is 4% for the loan facility of Rs.150 million and KIBOR plus 1% for the loan facility of Rs.122.5 million. The mark-up will be payable on each quarter along with the payment of principal. This facility also includes certain financial covenants, breaches in meeting the financial covenants would permit the bank to immediately call these bank facilities.

11. SECURITY DEPOSIT

This represent amount received from Atlas Honda Limited (a related party) equivalent to three months energy invoices.

12. CONTRACT LIABILITY

This represent advance consideration received from customer in ordinary course of business. The breakup of the same is as follows:

	2023	2022
	--- Rupees ---	
Honda Atlas Cars Pakistan Limited	-	69,414,802

12.1 The contract liabilities outstanding as at June 30, 2022 have been recognized as revenue during the year.

13. TRADE AND OTHER PAYABLES

	2023	2022
	--- Rupees ---	
Trade creditors	19,425,665	-
Provision for equipment restoration	5,588,904	5,588,904
Income tax deducted at source	43,047	3,598,924
Accrued liabilities	6,623,313	428,760
Provision for workers profit participation fund	12,194,211	-
Provision for workers welfare fund	1,971,617	-
Retention money payable	458,458	458,458
Others	1,824,950	1,855,704
	<u>48,130,165</u>	<u>11,930,750</u>

14. CONTINGENCIES AND COMMITMENTS

14.1 Contingencies

There are no contingencies to be reported as at June 30, 2023 and June 30, 2022.

Commitments

14.2 Guarantees aggregating Rs.500,000 (2022:Rs.1,000,000) have been issued to Alternative Energy Development Board (AEDB) for upgradation of vendor category of the Company through a bank.

15. REVENUE FROM CONTRACTS WITH CUSTOMER - net

	Note	2023	2022
		--- Rupees ---	
Energy Revenue		178,320,838	70,485,641
Less: Sale tax		26,575,527	10,241,503
		151,745,311	60,244,138
Revenue from sale of solar related equipment		209,772,705	130,819,806
Less: Sale tax		21,825,354	635,871
		187,947,351	130,183,935
Revenue from engineering and consultancy services		17,370,506	12,001,979
Less: Sale tax		2,222,667	1,390,304
		15,147,839	10,611,675
		354,840,501	201,039,748
15.1 Timing of revenue recognition			
Good transferred to customer over time		151,745,311	60,244,138
Good transferred to customer at a point in time		203,095,190	140,795,610
		354,840,501	201,039,748

16. COST OF SALES

Cost of solar related equipment		156,206,687	100,230,878
Depreciation	4.2	28,847,721	12,025,410
NEPRA generation license fees		226,704	88,516
Operation and maintenance cost		2,493,125	1,432,466
Insurance of plant and equipment		4,617,721	1,584,095
		192,391,958	115,361,365

17. ADMINISTRATIVE EXPENSES

Legal and professional charges		829,056	410,750
Auditor's remuneration	17.1	361,504	330,050
Depreciation	4.2	132,194	79,092
Donations	17.2	2,307,741	1,120,041
Membership and annual subscription fee		1,065,882	258,409
Others		1,068,285	92,688
		5,764,662	2,291,030

17.1 Auditors' remuneration

Annual audit fee - current year		330,050	330,050
- prior year		31,454	-
		361,504	330,050

17.2 This includes an amount of Rs.1,000,000 (2022: Rs.993,196) paid to Atlas Foundation (a related party). Mr. Saqib Shirazi (Director) is a trustee of Atlas Foundation.

18. FINANCE COST

		2023	2022
		--- Rupees ---	
Markup on long term finance		41,832,634	7,407,766
Bank charges		35,542	29,409
		41,868,176	7,437,175

19.	OTHER INCOME	2023	2022
		--- Rupees ---	
	Profit on term deposit receipts	7,646,899	3,353,169
	Unrealized gain on mutual funds	1,138,347	770,908
		<u>8,785,246</u>	<u>4,124,077</u>
20.	OTHER EXPENSES		
	Workers profit participation fund	12,194,211	-
	Workers welfare fund	1,971,617	-
		<u>14,165,828</u>	-
21.	TAXATION		
	Current tax on profit for the year	15,815,586	12,684,438
	Adjustment in respect of prior year	451,047	-
		<u>16,266,633</u>	<u>12,684,438</u>
21.1	No deferred tax assets or liability has been recognised as the revenue generated by Company is exempt from tax as explained in note 3.14. The above tax amount includes provision for taxation of Rs.14,049,032 (2022: Rs.11,958,921) on revenue from sale of solar relate equipment and from engineering and consulting services. The other amount included in the above tax relate to minimum tax (2022: minimum tax) paid over income earned from mutual funds and term deposit receipts.		
22.	CASH GENERATED FROM OPERATIONS	2023	2022
		--- Rupees ---	
	Profit before taxation	109,435,123	80,074,255
	Adjustments for non-cash and other items:		
	Depreciation	28,979,915	12,104,502
	Finance cost	41,832,634	7,407,766
	Provision for workers profit participation fund	12,194,211	-
	Provision for workers welfare fund	1,971,617	-
	Working capital changes	<u>(218,944,519)</u>	130,258,638
		<u>(24,531,019)</u>	<u>229,845,161</u>
22.1	Working capital changes		
	(Increase) / decrease in current assets:		
	- inventory	15,403,388	70,079,556
	- trade debts	(10,955,961)	(460,797)
	- advances	(16,105,914)	(2,290,796)
	- short term investment	(65,231,862)	9,883,753
	- other receivables	15,333,694	(61,562,029)
		<u>(61,556,655)</u>	15,649,687
	Increase / (decrease) in current liabilities:		
	- trade and other payables	22,033,587	(14,812,500)
	- project payable	(110,006,649)	110,006,649
	- contract liability	<u>(69,414,802)</u>	19,414,802
		<u>(157,387,864)</u>	114,608,951
		<u>(218,944,519)</u>	<u>130,258,638</u>

23. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Company has exposure to the following risks from its use of financial instruments:

- market risk
- credit risk; and
- liquidity risk.

The Company's Board of Directors (the Board) has overall responsibility for the establishment and oversight of the Company's risk management framework. The Board is also responsible for developing and monitoring the Company's risk management policies.

The Company's overall risk management programmed focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Company's financial performance. Risk management is carried out by a treasury department under policies approved by the Board. The treasury department identifies, evaluates and hedges financial risks. The Board provides written principles for overall risk management, as well as written policies covering specific areas, such as currency risk, interest rate risk, credit risk, use of derivative and non-derivative financial instruments and investment of excess liquidity.

23.1 Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises of three types of risks: currency risk, interest rate risk and price risk.

(a) Currency risk

Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. Foreign currency risk arises mainly where receivables and payables exist due to transactions entered into foreign currencies. The Company is not exposed to currency risk as all financial instruments are in local currency.

(b) Price risk

Price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate as a result of changes in market prices (other than those arising from interest rate risk or currency risk) whether those changes are caused by factors specific to the individual financial instruments or its issuer or factors affecting all similar financial instruments traded in the market. The Company is not exposed to price risk with respect to its investments in mutual funds as at June 30, 2023.

(c) Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of the financial instruments will fluctuate because of changes in market interest rates. The Company manages these mismatches through risk management strategies where significant changes in gap position can be adjusted. The Company is exposed to interest rate risk on long term finances and its investment in term deposit receipts.

23.2 Credit risk exposure and concentration of credit risk

Credit risk represents the risk of a loss if the counter party fails to discharge its obligation and cause the other party to incur a financial loss. The Company attempts to control credit risk by monitoring credit exposures, limiting transactions with specific counterparties and continually assessing the credit worthiness of counterparties.

Concentration of credit risk arises when a number of counterparties are engaged in similar business activities or have similar economic features that would cause their abilities to meet contractual obligations to be similarly affected by changes in economic, political or other conditions. Concentration of credit risk indicates the relative sensitivity of the Company's performance to developments affecting a particular industry.

Credit risk primarily arises from trade debts, advances, other receivables, short term investments and balances with banks. To manage exposure to credit risk in respect of trade debts, management performs credit reviews taking into account the customer's financial position, past experience and other relevant factors. Where considered necessary, advance payments are obtained from certain parties. The management has set a maximum credit period of 15 days to reduce the credit risk. Credit risk on bank balances is limited as the counter parties are banks with reasonably high credit ratings.

Exposure to credit risk

The maximum exposure to credit risk as at June 30, 2023 along with comparative is tabulated below:

	2023	2022
	--- Rupees ---	
Trade debts	17,664,483	6,708,522
Other receivables	48,324,951	63,658,645
Short term investments	70,076,729	4,844,867
Cash and bank balances	2,782,986	15,266,680
	138,849,149	90,478,714

The credit quality of loans and other receivables can be assessed with reference to their historical performance with no or negligible defaults in recent history and no losses incurred. Accordingly, management does not expect any counter party to fail in meeting their obligations.

The credit quality of the Company's bank balances can be assessed with reference to the external credit ratings as follows:

Name of Bank	Rating		
	short term	long term	agency
National Bank of Pakistan	A1+	AAA	VIS
Habib Bank Limited	A1+	AAA	VIS

23.3 Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company's approach is to ensure, as far as possible, to always have sufficient liquidity to meet its liabilities when due. Prudent liquidity risk management implies maintaining sufficient cash and marketable securities and ensuring the availability of adequate credit facilities. The Company's treasury department aims at maintaining flexibility in funding by keeping committed credit lines available.

Financial liabilities in accordance with their contractual maturities are presented below:

Particulars	Carrying amount	2023			
		Contractual cash flows			
		Total	Less than 1 year	Between 1 to 5 years	More than 5 years
		----- Rupees -----			
Long term financing	280,301,000	322,311,759	46,038,121	208,048,884	68,224,754
Trade and other payables	48,130,165	48,130,165	48,130,165	-	-
Accrued mark-up	2,895,391	2,895,391	2,895,391	-	-
Security deposit	28,000,000	28,000,000	-	-	28,000,000
	359,326,556	401,337,315	97,063,677	208,048,884	96,224,754

Particulars	2022				
	Carrying amount	Contractual cash flows			
		Total	Less than 1 year	Between 1 to 5 years	More than 5 years
		----- Rupees -----			
Long term financing	414,588,000	434,892,000	62,554,000	312,770,000	59,568,000
Trade and other payables	11,930,750	11,930,750	11,930,750	-	-
Accrued mark-up	6,638,700	6,638,700	6,638,700	-	-
Contract liability	69,414,802	69,414,802	69,414,802	-	-
Security deposit	28,000,000	28,000,000	-	-	28,000,000
Project payable	110,006,649	110,006,649	110,006,649	-	-
	640,578,901	660,882,901	260,544,901	312,770,000	87,568,000

The contractual cash flows relating to the above financial liabilities have been determined on the basis of mark-up / interest rates effective at the respective year-ends. The rates of mark-up / interest have been disclosed in the respective notes to these financial statements.

23.4 Fair value of financial assets and financial liabilities

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal (or most advantageous) market at the measurement date under current market conditions (i.e. an exit price) regardless of whether that price is directly observable or estimated using another valuation technique.

The Company classifies fair value measurements using a fair value hierarchy that reflects the significance of the inputs used in making the measurements. The fair value hierarchy has the following levels:

Valuation techniques used to determine fair values

- Level 1:** Quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2:** Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices).
- Level 3:** Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs).

As at June 30, 2023, all financial assets and financial liabilities reflected in the financial statements approximate to their fair values.

The Company recognises transfers between levels of the fair value hierarchy at the end of the reporting period during which the transfer has occurred.

The Company's policy for determining when transfers between levels in the hierarchy have occurred includes monitoring of the following factors:

- changes in market and trading activity (e.g. significant increases / decreases in activity)
- changes in inputs used in valuation techniques (e.g. inputs becoming / ceasing to be observable in the market)

There were no transfers between level 1, 2 or 3 of the fair value hierarchy during the year.

23.5 Financial instruments by category

Financial assets as per statement of financial position	Amortised cost	
	2023	2022
	--- Rupees ---	
Trade debts	17,664,483	6,708,522
Other receivables	48,324,951	63,658,645
Short term investments	70,076,729	4,844,867
Cash and bank balances	2,782,986	15,266,680
	138,849,149	90,478,714

Financial liabilities as per statement of financial position	Amortised cost	
	2023	2022
	--- Rupees ---	
Long term financing	241,784,000	414,588,000
Security deposit	28,000,000	28,000,000
Accrued mark-up	2,895,391	6,638,700
Trade and other payables	48,130,165	11,930,750
Project payable	-	110,006,649
	320,809,556	571,164,099

23.6 Capital risk management

The Company's prime objective when managing capital is to safeguard its ability to continue as a going concern so that it can continue to provide returns for shareholders, benefits for other stakeholders and to maintain a strong capital base to support the sustained development of its business.

The Company manages its capital structure by monitoring return on net assets and makes adjustments to it in the light of changes in economic conditions. In order to maintain or adjust the capital structure, the Company may adjust the amount of dividend paid to shareholders and / or issuer new shares.

Consistent with others in the industry, the Company monitors capital on the basis of gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is calculated as total borrowings less cash and bank balances. Total capital is calculated as equity as shown in the statement of financial position plus net debt.

	2023	2022
	--- Rupees ---	
Total borrowings	280,301,000	434,892,000
Less: cash and bank balances	2,782,986	15,266,680
Net debt	277,518,014	419,625,320
Total equity	267,631,959	174,463,469
Total capital	545,149,973	594,088,789
Gearing ratio	51%	71%

For the purpose of calculating the gearing ratio, the amount of total borrowings has been determined by including the effect of short term borrowings under mark-up arrangements (if any).

23.7 RECONCILIATION OF MOVEMENT OF LIABILITIES TO CASH FLOWS ARISING FROM FINANCIAL ACTIVITIES

	Long term finances	Liabilities Accrued interest / mark-up	Total
 Rupees		
Balance as at July 01, 2022	434,892,000	6,638,700	441,530,700
Finances obtained	119,500,000	-	119,500,000
Finances repaid	(274,091,000)	-	(274,091,000)
Finance cost paid	-	(45,575,943)	(45,575,943)
Total changes from financing cash flows	280,301,000	(38,937,243)	241,363,757
Mark-up / interest expense	-	41,832,634	41,832,634
Balance as at June 30, 2023	280,301,000	2,895,391	283,196,391

	Long term finances	Liabilities Accrued interest / mark-up	Total
 Rupees		
Balance as at July 01, 2021	182,696,000	1,981,924	184,677,924
Finances obtained	272,500,000	-	272,500,000
Finances repaid	(20,304,000)	-	(20,304,000)
Finance cost paid	-	(2,750,990)	(2,750,990)
Total changes from financing cash flows	434,892,000	(769,066)	434,122,934
Mark-up / interest expense	-	7,407,766	7,407,766
Balance as at June 30, 2022	434,892,000	6,638,700	441,530,700

24. TRANSACTIONS WITH RELATED PARTIES

Related parties comprise of the Parent company, Associated companies, directors and key management personnel. The Company in the normal course of business carries out transactions with various related parties. Detail of related parties (with whom the Company has transacted) along with relationship and transactions with related parties, other than those which have been disclosed elsewhere in these financial statements, are as follows:

24.1 Name of the related party

Holding Company

Shirazi Investments (Private) Limited (100% shareholding)

Associated Companies (due to common directorship)

Atlas Power Limited

Honda Atlas Cars Pakistan Limited

Atlas Solar Limited (formerly Zhenfa Pakistan New Energy Limited)

Atlas Honda Limited

Atlas Engineering (Private) Limited

Atlas Autos (Private) Limited

Atlas Insurance Limited

Atlas Battery Limited

Atlas Hitec (Private) Limited

Atlas Foundation

24.2 Significant transactions with related parties are as follows:

Names of Company	Nature and Description of Related Party Transaction	2023	2022
		--- Rupees ---	
Atlas Power Limited	Purchase of assets	3,922,536	-
Shirazi Investments (Private) Limited	Services received	426,528	-
Atlas Honda Limited	Revenue earned	151,745,322	71,244,138
	Security deposit received	-	28,000,000
	Sales of assets	256,000,000	-
	Purchase of assets	5,344,561	-
Atlas Battery Limited	Revenue earned	-	37,750,000
Atlas Autos (Private) Limited	Revenue earned	89,327,694	85,145,695
Atlas Foundation	Revenue earned	214,803	4,099,915
	Donation paid	1,800,743	-
Atlas Hitec (Private) Limited	Revenue earned	-	2,800,000
Honda Atlas Cars Pakistan Limited	Advance received	-	69,414,802
	Revenue earned	105,907,090	-
Atlas Insurance Limited	Insurance premium paid	4,617,721	3,244,902
Key management personnel	Salary & benefits	20,506,726	-

25. PLANT CAPACITY AND PRODUCTION

	2023 KWH	2022 KWH
Installed capacity-per hour (MW)	8,123	8,123
Installed capacity	58,975,873	28,087,832
Standard generation from installed capacity	8,757,176	4,349,885
Actual net electricity billed	8,779,818	4,386,466

26. RENUNERATION OF CHIEF EXECUTIVE, DIRECTOR AND EXECUTIVE

No remuneration has been paid to chief executive or to any of the director of the Company.

	2023	2022
	--- Rupees ---	
Remuneration paid to executives of the Company is as follows:		

Managerial remuneration	15,196,356	-
Performance bonus	6,500,924	-
Reimbursements	1,871,924	-
Retirement benefits	909,744	-
	24,478,948	-
Number of person	2	-

27. NUMBER OF EMPLOYEES

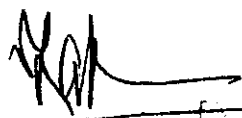
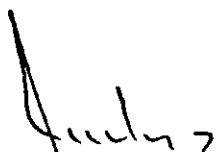
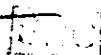
Total number of employees obtaining remuneration as at June 30, 2023 is 6 (2022: 2) and average number of employees for the year ended June 30, 2023 is 6 (2022: 2).

28. CORRESPONDING FIGURES

Corresponding figures have been reclassified wherever necessary to reflect more appropriate presentation of events and transactions for the purpose of comparison in accordance with the accounting and reporting standards as applicable in Pakistan. However, no significant reclassification has been made in these financial statements.

29. DATE OF AUTHORISATION FOR ISSUE

These condensed interim financial statements were approved by the Board of Directors and authorized for issue on **15 AUG 2023**

**Chairman / Director****Chief Executive Officer****Chief Financial Officer**

3(4)(c)(ii) * the last annual return of the Company submitted in compliance of section 130 of the Companies Act or, in case of an applicant to whom section 130 of the Companies Act does not apply, a return comprising of all such information and particulars as required by the specified form under section 130 of the Companies Act, as the case may be;

Form A
THE COMPANIES ACT, 2017
THE COMPANIES (GENERAL PROVISIONS AND FORMS) REGULATIONS, 2018
[Section 130(1) and Regulation 4]
ANNUAL RETURN OF COMPANY HAVING SHARE CAPITAL



PART - I

(Please complete in typescript or in bold block capitals)

1.1 CUIC (Registration Number) 0099710

1.2 Name of the Company ATLAS ENERGY LIMITED

1.3 Fee payment details

1.3.1 Challan No E-2023-1628957 1.3.2 Amount 1000.0

1.4 Form A made upto dd mm yyyy 28/09/2023

1.5 Date of AGM 26/09/2023

PART - II

Section A

2.1 Registered Office Address 64/X, Khayaban-e-Iqbal, DHA Phase 3 Lahore Lahore Punjab 54810

2.2 Email Address khaid@esl.adn.pk

2.3 Office Tel. No. 042-37132637

2.4 Office Fax No. 042-37132634

2.5 Principle line of business --POWER GENERATION - ALLIED (OTHER)

2.6 Mobile No. of Authorized officer (Chief Executive Director/ Company Secretary/ Chief Financial Officer) 03214351934

2.7 Authorized Share Capital

Classes and kinds of Shares	No. of Shares	Amount	Face Value
Ordinary Shares		500,000,000.00	

2.8 Paid up Share Capital

Classes and kinds of Shares	No. of Shares	Amount	Face Value
Ordinary Shares		74,000,030.00	

2.9 Particulars of the holding /subsidiary company, if any

Name of Company	Holding/Subsidiary	% Shares Held
Shirazi Investments Private Limited	0001542	100

2.10 Chief Executive

Name Maqsood Ahmed

Address House No. 397/B, EME Sector, DHA, Thokar Niaz Begi, Lahore, Punjab Pakistan 53710

NIC No 3520226323901

THIS IS DIGITAL CERTIFIED COPY AND NEEDS NO STAMP / SIGNATURE. CTC ISSUED DATE : 15-01-2024 (VALIDITY 01 MONTH)

This is a Digital Certified Copy of the company's record as per the provisions of the Companies Act, 2017. The copy is not valid for the purpose of bank account opening. The banks may verify the company's record through the portal maintained by the SECP.

**2.11 Chief Financial Officer**

Name

Address

NIC No

2.12 Secretary

Name

Khalid Mahmood

Address

303-Chambelli Block, Sector C, Bahria Town, Lahore

NIC No

3520228878439

2.13 Legal Advisor

Name

Monsir Tayebally and Co.

Address

1st Floor, Dome Center, BC4, Block 9, Clifton, Karachi

NIC No

2.14 Particulars of Auditors

Name

Shinewing Hamid Chaudhri and Co.

Address

HM House, 7-Bank Square, Lahore

2.15 Particulars of Shares Registrar (if applicable)

Name

Address

Email

Section-B**2.16 List of Directors on the date Annual return is made**

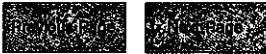
S#	Name of Director	Residential Address	Nationality	NIC (Passport No. if foreigner)	Date of appointment /election	Name of Member/Creditors nominating/appointing
1	Frahim Ali Khan	10-B/II, South Park Avenue, Phase II, DHA, Karachi, Sindh Pakistan 75500	Pakistan	4230187651189	31/10/2022	
2	Saqlub Hussain Shirazi	12 Khayaban-e-Bukhari, 5th Street, Phase VI, DHA, Karachi, Sindh Pakistan 75500	Pakistan	4200005096785	31/10/2022	
3	Maqsood Ahmad	House No. 397/B, EME Sector, DHA, Thokar Niaz Baig, Lahore, Punjab Pakistan 53710	Pakistan	3520226323901	31/10/2022	

2.17 List of members & debenture holders on the date upto which this Form is made



S#	Folio#	Name *	Address	Nationality	No of shares	Percentage	Port if foreigner
Members							
		Shirazi Investments (Pvt) Ltd	2nd Floor, Federation House, Sharaf Firdous	Pakistan	7400000		
1		Fahim Ali Khan	10-B/II, South Park Avenue, Phase II, DHA K	Pakistan	1		39
2		Saqlub Hussain Shirazi	12 Khayaban-e-Bukhari, 5th Street, Phase V	Pakistan	1		420005056785
3		Magsoda Ahmed	House No. 397/B, EME Sector DHA Thokar I	Pakistan	1		3520226323901
Debenture Holders							

In case the member or debenture holder is holding shares or debentures on behalf of other person(s), the name of such other person(s) shall be mentioned in parentheses along with the name of the member or debenture holder.



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

S#	Name of Transferor	Name of Transferee	No of Shares Transferred	Date of Registration of transfer
Members				
Debenture Holders				



PART-3

3.1 Declaration:

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

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

3.2 Name of Authorized Officer with designation: Authorized Intermediary Khalid Mahmood Secretary

3.3 Signatures

Electronically signed by Khalid Mahmood

3.4 Registration No of Authorized Intermediary, if applicable

3.5 Date

Day Month Year

24/10/2023



INSTRUKSI UNTUK MELAKUKAN PEMERIKSAAN



THIS IS DIGITAL CERTIFIED COPY AND NEEDS NO STAMP/SIGNATURE. CTC ISSUED DATE : 15-01-2024 (VALIDITY 01 MONTH)

..Digital Certified True Copy..
This Certified True Copy is not valid for purpose of bank account opening.
The banks may verify company's record through bank portal launched by the SECP.



3(4)(c)(iii) the authorised, issued, subscribed and paid up share capital of the applicant

	No of Shares	Rs.
Authorized Share Capital	<u>50,000,000</u>	<u>500,000,000</u>
Issued, Subscribed and Paid-up Share Capital	<u>7,400,003</u>	<u>74,000,030</u>
Ordinary Shares of Rs. 10 each		





3(4)(d)(iii) latest audited financial statements of the applicant;

3(4)(c)(iv) the shareholding pattern of the applicant including list of shareholders holding 5% or more shares, number of shares held by each of them and percentage shares of the total paid-up capital

Pattern of Shareholding

Name of Shareholder	No of Shares	Shareholding Percentage
Shirazi Investments (Pvt) Ltd	7,400,000	99.99996%
Maqsood Ahmad	1	0.00001%
Farahim Ali Khan	1	0.00001%
Saquib H Shirazi	1	0.00001%
	7,400,003	100%


**Atlas Energy Limited****Registered Office: 64/XX, Khayaban-e-Iqbal, DHA Phase 3, Lahore.****Tel: +92-42-37132637-38-39, Fax: +92-42-37132634**

3(4)(d)(i) evidence of cash balances held in reserve by the applicant, along with bank certificates;

**Statement of Account
For the Period From 01-Aug-2024 to 31-Aug-2024**

Registration Number : 12999
M/S. Atlas Energy Limited
Building No. 64, XX Block,
Khayaban-e-Iqbal, Phase 3, DHA, Lahore, Pakistan

Contact No : 0423-7132644

Account Info
Zakat Status : Not Applicable
Tax Status : Applicable
Account Type : Not Applicable
Tax Filing Status : Filer
Print Date : 03/09/2024

AIF **Dividend Option: Reinvest**

Atlas Income Fund

NAV Date	Transaction	Gross Amount	CGT	Zakat	Net Load	Net Amount	Unit Price	No. of Units	Balance Units
Opening Balance as of 01-Aug-2024									11.0533
Closing Balance as of 31-Aug-2024									11.0533
Total Value of Investment in Plan Atlas Income Fund as of 31-Aug-2024: Rs. 6,029.70									

AMF-G **Dividend Option: Reinvest**

Atlas Money Market Fund

NAV Date	Transaction	Gross Amount	CGT	Zakat	Net Load	Net Amount	Unit Price	No. of Units	Balance Units
Opening Balance as of 01-Aug-2024									101,146.3124
06-Aug-2024	Redemption	2,000,000.00	10,297.00	-	-	1,989,703.00	521.3256	(3,836.3740)	97,309.9384
08-Aug-2024	Redemption	8,000,000.00	44,535.00	-	-	7,955,465.00	522.2177	(15,319.2816)	81,990.6568
20-Aug-2024	Sale	7,000,000.00	-	-	-	7,000,000.00	525.2973	13,325.7871	95,316.4439
27-Aug-2024	Redemption	4,000,000.00	31,783.00	-	-	3,968,217.00	527.3502	(7,585.0924)	87,731.3515
Closing Balance as of 31-Aug-2024									87,731.3515
Total Value of Investment in Plan Atlas Money Market Fund - Growth Units as of 31-Aug-2024: Rs. 46,318,898.76									

Dividend Payout - For the Period From 01-Aug-2024 to 31-Aug-2024

Date	Fund Name	Gross Dividend	WHT	Zakat	Other Deductions	Net Dividend
-	-	-	-	-	-	-

Summary of Investment - As of 31-Aug-2024

Fund Name	Type of Units	Units	Unit Price	Price Date	Investment Value
Atlas Income Fund	CLASS D	11.0533	545.5112	31-Aug-2024	6,029.70
Atlas Money Market Fund	CLASS B	87,731.3515	527.9629	31-Aug-2024	46,318,898.76
					46,324,928.46

Mode of Unit Holding - As of 31-Aug-2024

Fund Name	AMO Electronic		Physical		CDS Book Entry	Total
	Available	Block / Pledge	Available	Block / Pledge		
Atlas Income Fund	11.0533	-	-	-	-	11.0533
Atlas Money Market Fund	87,731.3515	-	-	-	-	87,731.3515

For Atlas Asset Management Limited

- Please quote your registration number in all correspondence including request forms.
- Please review the statement carefully and report discrepancy in writing (if any) within fifteen (15) days of the date of this statement, otherwise it will be considered correct and accepted by you.
- To ensure accurate record for efficient service, please notify any change in unit holder information including contact details to the management company.

3(4)(d)(ii) details of charges or encumbrances attached to the applicant's assets, if any;

Not Applicable

ATLAS ENERGY LIMITED
AUDITED FINANCIAL STATEMENTS
FOR THE YEAR ENDED JUNE 30, 2023

Independent Auditor's Report To The Members Of **Atlas Energy Limited**

Report on the Audit of the Financial Statements

Opinion

We have audited the annexed financial statements of **Atlas Energy Limited** (the Company), which comprise the statement of financial position as at June 30, 2023, the statement of profit or loss and other comprehensive income, the statement of changes in equity, the statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies and other explanatory information, and we state that we have obtained all the information and explanations which, to the best of our knowledge and belief, were necessary for the purposes of the audit.

In our opinion and to the best of our information and according to the explanations given to us, the statement of financial position, the statement of profit or loss and other comprehensive income, the statement of changes in equity and statement of cash flows together with the notes forming part thereof conform with the accounting and reporting standards as applicable in Pakistan and give the information required by the Companies Act, 2017 (XIX of 2017), in the manner so required and respectively give a true and fair view of the state of the Company's affairs as at June 30, 2023 and of the profit, other comprehensive income, the changes in equity and its cash flows for the year then ended.

Basis for Opinion

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

Information Other than the Financial Statements and Auditors' Report thereon

Management is responsible for the other information presented along with the financial statements and the auditors' report thereon. With respect to the Company the other information comprises only the Director's Report on the operations of the Company.

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

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

Principal Office:

HM House
7-Bank Square, Lahore.
Tel: +92 42 37235084-87
Email: lhr@hccpk.com

Other Offices:

Karachi, Islamabad & Multan

Responsibilities of Management and Board of Directors for the Financial Statements

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

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

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

Auditors' Responsibilities for the Audit of the Financial Statements

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

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

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

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

Report on Other Legal and Regulatory Requirements

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

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

Other Matter

The financial statements for the Company for the year ended June 30, 2022 were audited by another firm of chartered accountants who expressed unmodified opinion on those financial statements on September 29, 2022.

The Engagement partner on the audit resulting in this independent auditors' report is Osman Hameed Chaudhri.

LAHORE; August 23, 2023
UDIN: AR202310104NXURzGVW3

Shinewing Hameed Chaudhri & Co.
SHINEWING HAMEED CHAUDHRI & CO.,
CHARTERED ACCOUNTANTS

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ATLAS ENERGY LIMITED
STATEMENT OF FINANCIAL POSITION
AS AT JUNE 30, 2023

	Note	2023 ----- Rupees -----	2022
ASSETS			
Non-current assets			
Plant and equipment	4	474,517,025	729,049,333
Current assets			
Trade debts	5	17,664,483	6,708,522
Inventory	6	9,780,216	25,183,604
Loans and advances	7	18,560,474	2,454,560
Other receivables	8	48,324,951	63,658,645
Short term investments	9	70,076,729	4,844,867
Cash and bank balances		2,782,986	15,266,680
		167,189,839	118,116,878
Total assets		641,706,864	847,166,211
EQUITY AND LIABILITIES			
Share capital and reserves			
50,000,000 (2022: 50,000,000) ordinary shares of Rs. 10/- each		500,000,000	500,000,000
7,400,003 (2022: 7,400,003) ordinary shares of Rs. 10/- each		74,000,030	74,000,030
Unappropriated profits		193,631,929	100,463,439
		267,631,959	174,463,469
Liabilities			
Non-current liabilities			
Long term financing	10	241,784,000	414,588,000
Security deposit	11	28,000,000	28,000,000
		269,784,000	442,588,000
Current liabilities			
Accrued mark-up		2,895,391	6,638,700
Current portion of long term financing	10	38,517,000	20,304,000
Contract liability	12	-	69,414,802
Project payable		-	110,006,649
Trade and other payables	13	48,130,165	11,930,750
Provision for taxation		14,748,349	11,819,841
		104,290,905	230,114,742
Total liabilities		374,074,905	672,702,742
Contingencies and commitments	14		
Total equity and liabilities		641,706,864	847,166,211

The annexed notes form an integral part of these financial statements.

Chairman / Director

5/10

Chief Executive Officer

Chief Financial Officer

ATLAS ENERGY LIMITED
STATEMENT OF PROFIT OR LOSS &
OTHER COMPREHENSIVE INCOME
FOR THE YEAR ENDED JUNE 30, 2023

	Note	2023 ----- Rupees -----	2022
Revenue from contracts with customer - net	15	354,840,501	201,039,748
Cost of sales	16	(192,391,958)	(115,361,365)
Gross profit		162,448,543	85,678,383
Administrative expenses	17	(5,764,662)	(2,291,030)
Finance cost	18	(41,868,176)	(7,437,175)
Other income	19	8,785,246	4,124,077
Other expenses		(14,165,828)	-
Profit before taxation		109,435,123	80,074,255
Taxation	21	(16,266,633)	(12,684,438)
Profit after taxation		93,168,490	67,389,817
Other comprehensive income		-	-
Total comprehensive income		93,168,490	67,389,817

The annexed notes form an integral part of these financial statements.

 Chairman / Director	 Chief Executive Officer	 Chief Financial Officer
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ATLAS ENERGY LIMITED
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED JUNE 30, 2023

	Note	2023 ----- Rupees -----	2022
CASH FLOWS FROM OPERATING ACTIVITIES			
Cash (used in) / generated from operations	22	(24,531,019)	229,845,161
Taxes paid		(13,338,125)	(873,005)
Net cash (used in) / generated from operating activities		(37,869,144)	228,972,156
CASH FLOWS FROM INVESTING ACTIVITIES			
Fixed capital expenditure		(31,015,234)	(494,540,081)
Sale proceeds of operating fixed assets		256,567,627	-
Net cash generated from / (used in) investing activities		225,552,393	(494,540,081)
CASH FLOWS FROM FINANCING ACTIVITIES			
Long term finances - obtained		119,500,000	252,196,000
- repaid		(274,091,000)	
Finance cost paid		(45,575,943)	(2,750,990)
Security deposit		-	28,000,000
Net cash (used in) / generated from financing activities		(200,166,943)	277,445,010
Net (decrease) / increase in cash and cash equivalents		(12,483,694)	11,877,085
Cash and cash equivalents - at beginning of the year		15,266,680	3,389,595
Cash and cash equivalents - at end of the year		2,782,986	15,266,680

The annexed notes form an integral part of these financial statements.

Chairman / Director

SFC

Chief Executive Officer

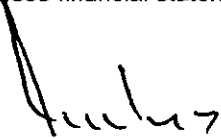
Chief Financial Officer

ATLAS ENERGY LIMITED
STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED JUNE 30, 2023

	Share capital	Unappropriated profit	Total
	----- Rupees -----		
Balance as at July 01, 2021	74,000,030	33,073,622	107,073,652
Total comprehensive income for the year:			
Profit after taxation	-	67,389,817	67,389,817
Other Comprehensive income	-	-	-
	-	67,389,817	67,389,817
Balance as at June 30, 2022	74,000,030	100,463,439	174,463,469
Balance as at July 01, 2022	74,000,030	100,463,439	174,463,469
Total comprehensive income for the year:			
Profit after taxation	-	93,168,490	93,168,490
Other Comprehensive income	-	-	-
	-	93,168,490	93,168,490
Balance as at June 30, 2023	74,000,030	193,631,929	267,631,959

The annexed notes form an integral part of these financial statements.


Chairman / Director 


Chief Executive Officer


Chief Financial Officer

ATLAS ENERGY LIMITED
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED JUNE 30, 2023

1. LEGAL STATUS AND OPERATIONS

Atlas Energy Limited hereafter referred as "the Company" was incorporated as an unquoted - public limited company in Pakistan on May 18, 2016, under the repealed Companies Ordinance, 1984 (now the Companies Act, 2017).

The purpose of Atlas Energy Limited is to provide cost effective solar solutions for industrial and commercial consumers.

Shirazi Investments (Private) Limited - holding company held 100% (2022:100%) ordinary shares of the Company.

1.1 Geographical location and address of major business units including mills / plant of the Company are as under:

	Purpose
Lahore 64/XX, Khayaban -e- Iqbal, DHA Phase III.	Registered office
Karachi 2nd Floor, Federation House, Shahra-e-Fardousi, Main Clifton.	Branch office

2. BASIS OF PREPARATION AND SIGNIFICANT ACCOUNTING POLICIES

2.1 Statement of compliance

These financial statements have been prepared in accordance with the accounting and reporting standards as applicable in Pakistan. The accounting and reporting standards applicable in Pakistan comprise of:

- International Financial Reporting Standards (IFRS Standards) issued by the International Accounting Standards Board (IASB) as notified under the Companies Act, 2017 (the Act);
- Islamic Financial Accounting Standards (IFAS) issued by the Institute of Chartered Accountants of Pakistan as notified under the Act; and
- Provisions of and directives issued under the Companies Act, 2017.

Where provisions of and directives issued under the Companies Act, 2017, differ with the requirements of IAS 34, the provisions of and directives issued under the Companies Act, 2017 have been followed.

2.2 Basis of measurement

These financial statements have been prepared under the historical cost convention.

2.3 Functional and presentation currency

These financial statements are presented in Pakistan Rupees, which is the Company's functional and presentation currency. All financial information presented in Pakistan Rupees has been rounded to the nearest rupees unless otherwise specified.

2.4 INITIAL APPLICATION OF STANDARDS, AMENDMENTS OR INTERPRETATIONS TO EXISTING STANDARDS

2.4.1 Standards, amendments to approved accounting standards effective in current year and have been adopted by the Company

The accounting policies adopted in the preparation of these financial statements are consistent with those of the previous financial year, except for change resulted due to adoption of amendments to accounting standards. The below mentioned amendments to approved accounting standards are effective for the financial year beginning on July 01, 2022 and have been adopted by the Company:

a) IAS 37 Provisions, Contingent Liabilities and Contingent Assets

Under IAS 37, a contract is 'onerous' when the unavoidable costs of meeting the contractual obligations – i.e. the lower of the costs of fulfilling the contract and the costs of terminating it – outweigh the economic benefits. The amendments clarify that the 'costs of fulfilling a contract' comprise both the incremental costs – e.g. direct labor and materials; and an allocation of other direct costs – e.g. an allocation of the depreciation charge for an item of property, plant and equipment used in fulfilling the contract.

b) IAS 16 Property, Plant and Equipment

Amendment to IAS 16 (regarding proceeds before an asset's intended use) prohibit a company from deducting from the cost of property, plant and equipment amounts received from selling items produced while the Company is preparing the asset for its intended use. Instead, a Company will recognise such sales proceeds and related cost in profit or loss. The amendments apply retrospectively, but only to items of PPE made available for use on or after the beginning of the earliest period presented in the financial statements in which the Company first applies the amendments.

The adoption of the above amendments to accounting standards did not have any material effect on the financial statement of the Company.

2.4.2 Standards, amendments to approved accounting standards and interpretations that are not yet effective and have not been early adopted by the Company**a) IAS 1 Presentation of Financial Statements****Effective: January 01, 2024**

The amendments clarify how to classify a debt and other liabilities as current or non-current. The IASB issued amendments to IAS 1 to specify the requirements for classifying liabilities as current or non-current. The amendments clarify the following:

- what is meant by a right to defer settlement;
- that a right to defer must exist at the end of the reporting period;
- that classification is unaffected by the likelihood that an entity will exercise its deferral right; and
- only covenants with which an entity is required to comply on or before the reporting date affect the classification of a liability as current or non-current. In addition, an entity has to disclose information in the notes that enables users of financial statements to understand the risk that non-current liabilities with covenants could become repayable within twelve months.

b) IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors**Effective: January 01, 2023**

The amendments clarify the distinction between changes in accounting estimates and changes in accounting policies and the correction of errors. The amendments introduce a new definition for accounting estimates clarifying that they are monetary amounts in the financial statements that are subject to measurement uncertainty. The amendments also clarify the relationship between accounting policies and accounting estimates by specifying that a Company develops an accounting estimate to achieve the objective set out by an accounting policy. The amendments will apply prospectively to changes in accounting estimates and changes in accounting policies occurring on or after the beginning of the first annual reporting period in which the company applies the amendments.

c) IAS 1 Presentation of Financial Statements**Effective: January 01, 2023**

Amendments to IAS 1, 'Presentation of Financial Statements' includes requiring companies to disclose their material accounting policies rather than their significant accounting policies, clarifying that accounting policies related to immaterial transactions, other events or conditions are themselves immaterial and as such need not be disclosed and also clarifying that not all accounting policies that relate to material transactions, other events or conditions are themselves material to a Company's financial statements.

The Company has assessed that the impact of above amendments is not expected to be significant.

There are number of other standards, amendments and interpretations to the approved accounting standards that are not yet effective and are also not relevant to the Company and therefore, have not been presented here.

2.5 Critical accounting estimates and judgements

The preparation of financial statements in conformity with approved accounting standards requires management to make judgments, estimates and assumptions that affect the application of policies and the reported amount of assets, liabilities, income and expenses. Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The Company makes estimates and assumptions concerning the future. The resulting accounting estimates will, by definition, seldom equal the related actual results. Judgments, estimates and assumptions made by the management that may have a significant risk of material adjustment to the financial statements in the subsequent year are as follows;

(a) Plant and equipment

The Company reviews appropriateness of the rates of depreciation, useful lives and residual values for calculation of depreciation on an on-going basis. Further, where applicable, an estimate of recoverable amount of asset is made if indicators of impairment are identified.

(b) Inventory

The Company estimates the net realizable value of equipment inventory to assess any diminution in the carrying value. Net realizable value is determined with reference to estimated selling price less estimated expenditure to make sale. Provision is made in the financial statements for obsolete and slow moving stock-in-trade based on management estimate.

3. SIGNIFICANT ACCOUNTING POLICIES

The principal accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all the years presented.

3.1 Plant and equipment**Owned assets**

Plant and equipment are stated at cost less accumulated depreciation.

Depreciation

Depreciation on all items of plant and equipment except for vehicles is charged to statement of profit or loss applying the straight line method. Vehicles are depreciated using the reducing balance method so as to write off historical cost of an asset over its estimated useful life. Rates of depreciation is stated in note 4.1.

Depreciation on addition in plant and equipment is charged from the date of addition while no depreciation is charged in the date of disposal. The Company reviews the useful life and residual value of plant and equipment on a regular basis. Any change in estimates in future years might affect the carrying amounts of the respective items of plant and equipment with a corresponding effect on depreciation charge.

Disposal

Gains or losses on disposal or retirement of fixed assets are determined as the difference between the sale proceeds and the carrying amount of assets and are included in the statement of profit or loss.

Capital work-in-progress

Capital work-in-progress is stated at cost accumulated up to the statement of financial position date less accumulated impairment losses, if any. Capital work-in-progress is recognized as an operating fixed asset when it is made available for intended use.

Impairment

The carrying amounts of assets are reviewed at each statement of financial position date to determine whether there is any indication of impairment of any asset or a group of assets. If any such indication exists, the recoverable amount of that asset is estimated and impairment losses are recognized in the profit and loss account.

3.2 Right-of-use assets and lease liability

As per IFRS 16, the Company has to recognize right to use assets and a corresponding lease liability. The lease liability will be measured at the present value of the consideration (lease payments) to be made over the lease term. The lease payments will be discounted using the interest rate implicit in the lease, unless it is not readily determinable, in which case the Company may use the incremental rate of borrowing. The right-of-use asset is initially measured at the present value of lease liability and adjusted for lease prepayments/accruals and borrowing costs.

The right-of-use assets recognized subsequent to the adoption are measured based on the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred. The right-of-use assets are depreciated over the lease term using a straight line basis as it closely reflects the expected pattern of consumption of future economic benefits. The right-of-use assets are reduced by impairment losses, if any, and adjusted for certain re-measurements of lease liability.

3.3 Financial assets

Initial measurement

The Company classifies its financial assets in the following three measurement categories:

- fair value through other comprehensive income (FVTOCI);
- fair value through profit or loss (FVTPL); and
- measured at amortized cost.

A financial asset is initially measured at fair value plus, for an item not at FVTPL, transaction costs that are directly attributable to its acquisition.

Subsequent Measurement

- **Equity Instruments at FVTOCI**

These assets are subsequently measured at fair value. Dividends are recognized as income in the statement of profit or loss. Other net gains and losses are recognized in statement of other comprehensive income and are never reclassified to the statement of profit or loss.

- **Debt Instruments at FVTOCI**

These assets are subsequently measured at fair value. Interest / mark-up income calculated using the effective interest method, foreign exchange gains and losses and impairment are recognized in the statement of profit or loss. Other net gains and losses are recognized in statement of other comprehensive income. On derecognition, gains and losses accumulated in statement of other comprehensive income are reclassified to the statement of profit or loss.

- **Debt Instruments at FVTPL**

These assets are subsequently measured at fair value. Net gains and losses, including any interest / mark-up or dividend income, are recognized in the statement of profit or loss.

- **Financial Assets measured at amortised cost**

These assets are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest / mark-up income, foreign exchange gains and losses and impairment are recognized in the statement of profit or loss.

Derecognition

Financial assets are derecognized when the rights to receive cash flows from the financial assets have expired or have been transferred and the Company has transferred substantially all risks and rewards of ownership.

3.4 Trade debts and other receivables and related impairment

Trade debts and other receivables are recognized when an unconditional right to amount of consideration is established.

Trade debts are measured at the transaction price measured under IFRS 15. A loss allowance is recognized for trade debts based on lifetime expected credit losses at each reporting date based on Company's historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment.

Other receivables are initially recognized at fair value and subsequently measured at amortized cost using the effective interest method, less expected credit losses as explained in note 3.3. The trade debts mainly comprise of a balances with related parties which are considered as good and having no impact of expected credit loss.

3.5 Equipment inventory

Equipment inventory is valued principally at lower of weighted average cost and net realizable value except for the item in transit stated at invoice value plus other charges thereon till the reporting date, while item considered obsolete are carried at nil value.

Net realizable value signifies the estimated selling price in the ordinary course of business less costs necessarily to be incurred in order to make the sale. Provision is made in the financial statements for obsolete and slow moving stock-in-trade based on management estimate.

3.6 Impairment

(a) Financial assets

The Company recognizes an allowance for expected credit losses ("ECL") for all debt instruments not held at fair value through profit or loss. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Company expects to receive. The shortfall is then discounted at an approximation to the asset's original effective interest rate.

ECLs are recognized in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12-months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

The Company considers a financial asset in default when contractual payments are 60 days past due. However, in certain cases, the Company may also consider a financial asset to be in default when internal or external information indicates that the Company is unlikely to receive the outstanding contractual amounts in full before taking into account any credit enhancements held by the Company. A financial asset is written off when there is no reasonable expectation of recovering the contractual cash flows.

For trade debts, the Company applies a simplified approach in calculating ECLs based on lifetime expected credit losses. The Company has established a provision matrix that is based on the Company's historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment. The expected credit losses are recognized in the statement of profit or loss.

For bank balances, the Company applies a simplified approach in calculating ECLs based on lifetime expected credit losses. The Company reviews internal and external information available for each bank balance to assess expected credit loss and the likelihood to receive the outstanding contractual amount. The expected credit losses are recognized in the statement of profit or loss.

(b) Non-financial assets

The carrying amounts of the Company's non-financial assets are reviewed at each reporting date to identify circumstances indicating occurrence of impairment loss or reversal of provisions for impairment losses. If any indications exist, the recoverable amounts of such assets are estimated and impairment losses or reversals of impairment losses are recognized in the statement of profit or loss. Reversal of impairment loss is restricted to the original cost of the asset.

3.7 Financial liabilities**Initial measurement**

Financial liabilities are classified, at initial recognition, as financial liabilities at fair value through profit or loss, loans and borrowings, payables, or as derivatives designated as hedging instruments in an effective hedge, as appropriate.

All financial liabilities are recognized initially at fair value and, in the case of loans and borrowings and payables, net of directly attributable transaction costs.

The Company's financial liabilities include long term loans, creditors, accrued and other liabilities.

Subsequent Measurement

After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortized cost using the EIR method. Gains and losses are recognized in profit or loss when the liabilities are derecognized as well as through the EIR amortization process.

Amortized cost is calculated by taking into account any discount or premium on acquisition and fees or costs that are an integral part of the EIR. The EIR amortization is included as finance costs in the statement of comprehensive income.

This category applies to long term loans, short term borrowings utilized under mark-up arrangements, creditors, liabilities against assets subject to finance lease, accrued and other liabilities.

Derecognition

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expires.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in the statement of profit or loss.

3.8 Cash and cash equivalents

Cash and cash equivalents are defined as cash in hand, cash at banks and short-term highly liquid investments that are readily convertible to known amounts of cash and subject to insignificant risk of changes in value. For the purpose of cash flow statement, cash and cash equivalents comprise bank balances including short-term deposits net of bank overdraft, if any.

3.9 Contract asset

A contract asset is the right to consideration in exchange for goods or services transferred to the customer. If the Company performs by transferring goods or services to a customer before the customer pays consideration or before payment is due, a contract asset is recognized for the earned consideration that is conditional.

3.10 Contract liabilities

A contract liability is the obligation to transfer goods or services to a customer for which the Company has received consideration (or an amount of consideration is due) from the customer. If a customer pays consideration before the Company transfers goods or services to the customer, a contract liability is recognized when the payment is made or the payment is due (whichever is earlier). Contract liabilities are recognized as revenue when the Company performs under the contract.

3.11 Borrowings

Borrowings are recorded at the proceeds received. Financial charges are accounted for on accrual basis and are included in mark up accrued on loans to the extent of amount remaining unpaid, if any.

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use, are added to the cost of those assets until such time as the assets are substantially ready for their intended use. All other borrowing costs are charged to the income statement, in the period in which these are incurred.

3.12 Trade and other payables

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

3.13 Provisions

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

3.14 Taxation

Income tax on profit and loss for the year comprises current and deferred tax.

Current

Profit and gains derived by the Company from the power generation project are exempt from the tax under Clause (132) of Part I of the Second Schedule to the Income Tax Ordinance, 2001. The Company is also exempt from the minimum tax on the turnover under Clause 11A (v) of the Part IV of the Second Schedule to the Income Tax Ordinance, 2001.

However, provision for current taxation on profits and gains other than from power generation project is based on taxable income at current rates of taxation after taking into account tax credits and rebates available, if any, in accordance with the provision of the Income Tax Ordinance, 2001. It also includes any adjustment to tax payable in respect of prior years.

Deferred

As the Company's revenue is exempt from tax, therefore no deferred tax has been recognized in these financial statements.

3.15 Revenue Recognition**Revenue recognition policy**

The Company is in the business of power generation and sale of energy. Revenue from contract with customer is recognized when control of the goods are transferred to the customer at an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods or services. Specific revenue recognition details are as follows:

Sale of energy

Revenue from the sale of energy is recognized upon the transfer of control of the goods to the buyer when performance obligation is satisfied, which refers to the transmission of Net Electrical Output (NEO) to customer through solar solution installed at premises of customer, as agreed in the Agreements for sale and purchase of electricity.

Determining the timing of satisfaction of performance obligations

The Company concluded that revenue from electricity is to be recognized at over time because the electricity element represents a promise to transfer a series of distinct goods that are substantially the same and that have the same pattern of transfer to the customer; therefore the electricity represents one performance obligation that is satisfied over time. Further, electricity is distinct and the buyer simultaneously receives and consumes the benefit provided by the Company.

Sale of equipment

Revenue from the sale of equipment is recognized upon the transfer of control of the goods to the buyer when performance obligation is satisfied, which refers to the transfer of equipment to the customer.

Determining the timing of satisfaction of performance obligations

The Company concluded that revenue from sale of equipment is to be recognized at a point in time when the asset is actually transferred to the customer. The transfer of equipment to the customer represents a single performance obligation. Therefore, revenue is recognized when the control of the asset is transferred to the customer.

Provision of engineering and installation services

Revenue from the provision of engineering and installation services is recognized when the equipment is installed at the customer premises and performance obligation is satisfied, which refers to the provision of installation services related to equipment sold by the Company.

Determining the timing of satisfaction of performance obligations

The Company concluded that revenue from provision of engineering and installation services is to be recognized at a point in time when the asset is actually installed at the customer premises by the company. The provision of engineering and installation services to the customer represents a single performance obligation. Therefore, revenue is recognized when the services are performed.

3.16 Offsetting of financial assets and financial liabilities

A financial asset and a financial liability is offset and the net amount is reported in the statement of financial position if the Company has a legally enforceable right to set-off the recognized amounts and intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

4. PLANT AND EQUIPMENT

		2023	2022
	Note	- - - Rupees - - -	
Operating fixed assets	4.1	455,762,888	729,049,333
Capital work in progress	4.4	18,754,137	-
		<u>474,517,025</u>	<u>729,049,333</u>

4.1 Operating fixed assets

	Plant and equipment	Computers	Vehicles	Total
	----- Rupees -----			
Cost				
Balance as at July 01, 2021	259,438,289	119,500	-	259,557,789
Additions during the year	494,363,415	176,666	-	494,540,081
Balance as at June 30, 2022	753,801,704	296,166	-	754,097,870
Balance as at July 01, 2022	753,801,704	296,166	-	754,097,870
Additions during the year	-	240,000	12,021,097	12,261,097
Disposals during the year	(263,917,526)	-	(587,200)	(264,504,726)
Balance as at June 30, 2023	489,884,178	536,166	11,433,897	501,854,241
Depreciation				
Balance as at July 01, 2021	12,871,008	73,027	-	12,944,035
Charge for the year	12,025,410	79,092	-	12,104,502
Balance as at June 30, 2022	24,896,418	152,119	-	25,048,537
Balance as at July 01, 2022	24,896,418	152,119	-	25,048,537
Charge for the year	26,633,168	132,194	2,214,553	28,979,915
On disposals during the year	(7,917,526)	-	(19,573)	(7,937,099)
Balance as at June 30, 2023	43,612,060	284,313	2,194,980	46,091,353
Book value as at June 30, 2022	728,905,286	144,047	-	729,049,333
Book value as at June 30, 2023	446,272,118	251,853	9,238,917	455,762,888
Depreciation rate (%)	4	33	20	

- 4.1.1 The Company has purchased vehicles from Atlas Honda Limited (a related party) of Rs.5.34 million and Atlas Power Limited (a related party) of Rs. 3.92 million (2022: Rs. Nil).
- 4.1.2 This represents assets installed at Atlas Honda Limited (AHL), a related party, for the purpose of generation of solar based energy for the duration of solar energy agreement.
- 4.1.3 The cost of plant and equipment includes provision for equipment restoration amounting to Rs. 5.588 million (2022: Rs. 5.588 million).
- 4.1.4 There are fully depreciated assets having cost of Rs.119,500 that are still in use as at year end.

4.2 Depreciation for the year has been apportioned as under:

	2023	2022
	--- Rupees ---	
Cost of sales	28,847,721	12,025,410
Administrative expenses	132,194	79,092
	<u>28,979,915</u>	<u>12,104,502</u>

4.3 Disposal of Operating Fixed Assets

Particulars of assets	Cost	Accumulated depreciation	Net book value	Sale proceeds	Gain	Mode of disposal	Sold to:
	----- Rupees -----						
Assets having net book value exceeding Rs.500,000 each							
Vehicles							
Suzuki Cultus	587,200	19,573	567,627	567,627	-	Company policy	Mr. Tanzil Ur Rahman (Employee)
Plant and equipment							
Solar Modules	263,917,526	7,917,526	256,000,000	256,000,000	-	Negotiation	Atlas Honda Limited (a related party)
2023	<u>264,504,726</u>	<u>7,937,099</u>	<u>256,567,627</u>	<u>256,567,627</u>	<u>-</u>		
2022	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>		

4.4 Capital work-in-progress

	Note	2023	2022
		--- Rupees ---	
Opening balance as at 1 July		-	-
Addition during the year	4.4.1	18,754,137	494,363,415
Transfer to operating fixed assets		-	(494,363,415)
Closing balance as at 30 June		<u>18,754,137</u>	<u>-</u>

- 4.4.1 Preceding years additions to capital work-in-progress includes borrowing costs for phase 03 project determined using an average capitalization rate of 14.08% amounting to Rs. 4.873 million.

5. TRADE DEBTS – unsecured

- 5.1 This relates to an amount receivable from Atlas Honda Limited (a related party). The maximum aggregate amount outstanding at any time during the year was Rs.17.664 million(2022: Rs.6.709 million).
- 5.2 Aging of balance due but not impaired:

	2023	2022
	--- Rupees ---	
0-3 months	<u>17,664,483</u>	<u>6,708,522</u>

6.	INVENTORY	Note	2023	2022
			--- Rupees ---	
	Equipment inventory		9,268,098	9,413,455
	Work in progress	6.1	512,118	15,770,149
			<u>9,780,216</u>	<u>25,183,604</u>
6.1	This includes stock held by related parties amounting to Rs. 9.268 million (2022: 17.800 million).			
7.	LOANS AND ADVANCES - unsecured considered good	Note	2023	2022
			--- Rupees ---	
	Advance tax		17,488,018	2,065,106
	Loans and advances to employees		1,072,456	389,454
			<u>18,560,474</u>	<u>2,454,560</u>
8.	OTHER RECEIVABLES - considered good		2023	2022
			--- Rupees ---	
	Sales tax receivable		46,513,764	63,658,645
	Profit receivable		85,887	-
	Security deposits		1,725,300	-
			<u>48,324,951</u>	<u>63,658,645</u>
9.	SHORT TERM INVESTMENT		2023	2022
			--- Rupees ---	
	Investment in mutual funds	9.1	45,076,729	3,844,867
	Investment in term deposit receipts	9.2	25,000,000	1,000,000
			<u>70,076,729</u>	<u>4,844,867</u>
9.1	This represents investment in mutual funds managed by Atlas Asset Management Limited (a related Party), the breakup of the investment is as follows:			
	Related parties:			
			2023	2022
			---- Units ----	
	Atlas income funds		9.336	6.809
	Atlas Money Market Funds		88,635.656	7,568.966
			<u>45,071,833</u>	<u>3,841,303</u>
			<u>45,076,729</u>	<u>3,844,867</u>
9.1.1	The fair value of these investments has been determined using their respective net assets value, published by Mutual Funds Association of Pakistan (MUFAP) on its website at the reporting date.			
9.2	This represents an investment in term deposits with Habib Bank Limited (a commercial bank) having maturity of 1 year and carrying markup at 18.66% (2021: 6%) per annum.			
10.	LONG TERM FINANCING - Secured	Note	2023	2022
			--- Rupees ---	
	Habib Bank Limited			
	- Long term finance facility - phase 1	10.1	52,144,000	59,596,000
	- Long term finance facility - phase 2	10.1	93,157,000	102,796,000
	- Long term finance facility - phase 3	10.2	135,000,000	272,500,000
			<u>280,301,000</u>	<u>434,892,000</u>
	Less: current portion grouped under current liabilities		38,517,000	20,304,000
			<u>241,784,000</u>	<u>414,588,000</u>

10.1 The Company has arranged long term finance facility amounting Rs.270 million from Habib Bank Limited under SBP Financing Scheme for Renewable Energy. The bank against the said facility disbursed Rs.203 million in three tranches of different amounts. The loan is repayable in 40 equal quarterly installments. These finances carry mark-up at the SBP rate plus 1% and are secured against first charge over all present and future current and non-current assets of the Company with the margin of 10% and 20% respectively.

10.2 The Company, during the preceding year, has arranged long term finance facility amounting Rs.272.5 million having a total limit of PKR 400 million including loan from SBP under Green Financing Facility of Rs.150 million repayable in 40 equal quarterly instalments. This facility has obtained by the Company for the purpose of financing the capital expenditure. This facility is secured by current and non-current assets of the Company with the margin of 20%. The rate of mark-up is 4% for the loan facility of Rs.150 million and KIBOR plus 1% for the loan facility of Rs.122.5 million. The mark-up will be payable on each quarter along with the payment of principal. This facility also includes certain financial covenants, breaches in meeting the financial covenants would permit the bank to immediately call these bank facilities.

11. SECURITY DEPOSIT

This represent amount received from Atlas Honda Limited (a related party) equivalent to three months energy invoices.

12. CONTRACT LIABILITY

This represent advance consideration received from customer in ordinary course of business. The breakup of the same is as follows:

	2023	2022
	- - - Rupees - - -	
Honda Atlas Cars Pakistan Limited	-	69,414,802

12.1 The contract liabilities outstanding as at June 30, 2022 have been recognized as revenue during the year.

13. TRADE AND OTHER PAYABLES

	2023	2022
	- - - Rupees - - -	
Trade creditors	19,425,665	-
Provision for equipment restoration	5,588,904	5,588,904
Income tax deducted at source	43,047	3,598,924
Accrued liabilities	6,623,313	428,760
Provision for workers profit participation fund	12,194,211	-
Provision for workers welfare fund	1,971,617	-
Retention money payable	458,458	458,458
Others	1,824,950	1,855,704
	<u>48,130,165</u>	<u>11,930,750</u>

14. CONTINGENCIES AND COMMITMENTS

14.1 Contingencies

There are no contingencies to be reported as at June 30, 2023 and June 30, 2022.

Commitments

14.2 Guarantees aggregating Rs.500,000 (2022:Rs.1,000,000) have been issued to Alternative Energy Development Board (AEDB) for upgradation of vendor category of the Company through a bank.

15. REVENUE FROM CONTRACTS WITH CUSTOMER - net

		2023	2022
	Note	--- Rupees ---	
Energy Revenue		178,320,838	70,485,641
Less: Sale tax		26,575,527	10,241,503
		151,745,311	60,244,138
Revenue from sale of solar related equipment		209,772,705	130,819,806
Less: Sale tax		21,825,354	635,871
		187,947,351	130,183,935
Revenue from engineering and consultancy services		17,370,506	12,001,979
Less: Sale tax		2,222,667	1,390,304
		15,147,839	10,611,675
		354,840,501	201,039,748
15.1 Timing of revenue recognition			
Good transferred to customer over time		151,745,311	60,244,138
Good transferred to customer at a point in time		203,095,190	140,795,610
		354,840,501	201,039,748

16. COST OF SALES

Cost of solar related equipment		156,206,687	100,230,878
Depreciation	4.2	28,847,721	12,025,410
NEPRA generation license fees		226,704	88,516
Operation and maintenance cost		2,493,125	1,432,466
Insurance of plant and equipment		4,617,721	1,584,095
		192,391,958	115,361,365

17. ADMINISTRATIVE EXPENSES

Legal and professional charges		829,056	410,750
Auditor's remuneration	17.1	361,504	330,050
Depreciation	4.2	132,194	79,092
Donations	17.2	2,307,741	1,120,041
Membership and annual subscription fee		1,065,882	258,409
Others		1,068,285	92,688
		5,764,662	2,291,030

17.1 Auditors' remuneration

Annual audit fee - current year		330,050	330,050
- prior year		31,454	-
		361,504	330,050

17.2 This includes an amount of Rs.1,000,000 (2022: Rs.993,196) paid to Atlas Foundation (a related party). Mr. Saqib Shirazi (Director) is a trustee of Atlas Foundation.

18. FINANCE COST

		2023	2022
		--- Rupees ---	
Markup on long term finance		41,832,634	7,407,766
Bank charges		35,542	29,409
		41,868,176	7,437,175

19.	OTHER INCOME	2023	2022
		--- Rupees ---	
	Profit on term deposit receipts	7,646,899	3,353,169
	Unrealized gain on mutual funds	1,138,347	770,908
		<u>8,785,246</u>	<u>4,124,077</u>
20.	OTHER EXPENSES		
	Workers profit participation fund	12,194,211	-
	Workers welfare fund	1,971,617	-
		<u>14,165,828</u>	-
21.	TAXATION		
	Current tax on profit for the year	15,815,586	12,684,438
	Adjustment in respect of prior year	451,047	-
		<u>16,266,633</u>	<u>12,684,438</u>
21.1	No deferred tax assets or liability has been recognised as the revenue generated by Company is exempt from tax as explained in note 3.14. The above tax amount includes provision for taxation of Rs.14,049,032 (2022: Rs.11,958,921) on revenue from sale of solar relate equipment and from engineering and consulting services. The other amount included in the above tax relate to minimum tax (2022: minimum tax) paid over income earned from mutual funds and term deposit receipts.		
22.	CASH GENERATED FROM OPERATIONS	2023	2022
		--- Rupees ---	
	Profit before taxation	109,435,123	80,074,255
	Adjustments for non-cash and other items:		
	Depreciation	28,979,915	12,104,502
	Finance cost	41,832,634	7,407,766
	Provision for workers profit participation fund	12,194,211	-
	Provision for workers welfare fund	1,971,617	-
	Working capital changes	<u>(218,944,519)</u>	130,258,638
		<u>(24,531,019)</u>	<u>229,845,161</u>
22.1	Working capital changes		
	(Increase) / decrease in current assets:		
	- inventory	15,403,388	70,079,556
	- trade debts	(10,955,961)	(460,797)
	- advances	(16,105,914)	(2,290,796)
	- short term investment	(65,231,862)	9,883,753
	- other receivables	15,333,694	(61,562,029)
		<u>(61,556,655)</u>	15,649,687
	Increase / (decrease) in current liabilities:		
	- trade and other payables	22,033,587	(14,812,500)
	- project payable	(110,006,649)	110,006,649
	- contract liability	<u>(69,414,802)</u>	19,414,802
		<u>(157,387,864)</u>	114,608,951
		<u>(218,944,519)</u>	<u>130,258,638</u>

23. FINANCIAL RISK MANAGEMENT OBJECTIVES AND POLICIES

The Company has exposure to the following risks from its use of financial instruments:

- market risk
- credit risk; and
- liquidity risk.

The Company's Board of Directors (the Board) has overall responsibility for the establishment and oversight of the Company's risk management framework. The Board is also responsible for developing and monitoring the Company's risk management policies.

The Company's overall risk management programmed focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Company's financial performance. Risk management is carried out by a treasury department under policies approved by the Board. The treasury department identifies, evaluates and hedges financial risks. The Board provides written principles for overall risk management, as well as written policies covering specific areas, such as currency risk, interest rate risk, credit risk, use of derivative and non-derivative financial instruments and investment of excess liquidity.

23.1 Market risk

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. Market risk comprises of three types of risks: currency risk, interest rate risk and price risk.

(a) Currency risk

Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. Foreign currency risk arises mainly where receivables and payables exist due to transactions entered into foreign currencies. The Company is not exposed to currency risk as all financial instruments are in local currency.

(b) Price risk

Price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate as a result of changes in market prices (other than those arising from interest rate risk or currency risk) whether those changes are caused by factors specific to the individual financial instruments or its issuer or factors affecting all similar financial instruments traded in the market. The Company is not exposed to price risk with respect to its investments in mutual funds as at June 30, 2023.

(c) Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of the financial instruments will fluctuate because of changes in market interest rates. The Company manages these mismatches through risk management strategies where significant changes in gap position can be adjusted. The Company is exposed to interest rate risk on long term finances and its investment in term deposit receipts.

23.2 Credit risk exposure and concentration of credit risk

Credit risk represents the risk of a loss if the counter party fails to discharge its obligation and cause the other party to incur a financial loss. The Company attempts to control credit risk by monitoring credit exposures, limiting transactions with specific counterparties and continually assessing the credit worthiness of counterparties.

Concentration of credit risk arises when a number of counterparties are engaged in similar business activities or have similar economic features that would cause their abilities to meet contractual obligations to be similarly affected by changes in economic, political or other conditions. Concentration of credit risk indicates the relative sensitivity of the Company's performance to developments affecting a particular industry.

Credit risk primarily arises from trade debts, advances, other receivables, short term investments and balances with banks. To manage exposure to credit risk in respect of trade debts, management performs credit reviews taking into account the customer's financial position, past experience and other relevant factors. Where considered necessary, advance payments are obtained from certain parties. The management has set a maximum credit period of 15 days to reduce the credit risk. Credit risk on bank balances is limited as the counter parties are banks with reasonably high credit ratings.

Exposure to credit risk

The maximum exposure to credit risk as at June 30, 2023 along with comparative is tabulated below:

	2023	2022
	- - - Rupees - - -	
Trade debts	17,664,483	6,708,522
Other receivables	48,324,951	63,658,645
Short term investments	70,076,729	4,844,867
Cash and bank balances	2,782,986	15,266,680
	<u>138,849,149</u>	<u>90,478,714</u>

The credit quality of loans and other receivables can be assessed with reference to their historical performance with no or negligible defaults in recent history and no losses incurred. Accordingly, management does not expect any counter party to fail in meeting their obligations.

The credit quality of the Company's bank balances can be assessed with reference to the external credit ratings as follows:

Name of Bank	Rating		
	short term	long term	agency
National Bank of Pakistan	A1+	AAA	VIS
Habib Bank Limited	A1+	AAA	VIS

23.3 Liquidity risk

Liquidity risk is the risk that the Company will not be able to meet its financial obligations as they fall due. The Company's approach is to ensure, as far as possible, to always have sufficient liquidity to meet its liabilities when due. Prudent liquidity risk management implies maintaining sufficient cash and marketable securities and ensuring the availability of adequate credit facilities. The Company's treasury department aims at maintaining flexibility in funding by keeping committed credit lines available.

Financial liabilities in accordance with their contractual maturities are presented below:

Particulars	2023				
	Carrying amount	Contractual cash flows			
		Total	Less than 1 year	Between 1 to 5 years	More than 5 years
		----- Rupees -----			
Long term financing	280,301,000	322,311,759	46,038,121	208,048,884	68,224,754
Trade and other payables	48,130,165	48,130,165	48,130,165	-	-
Accrued mark-up	2,895,391	2,895,391	2,895,391	-	-
Security deposit	28,000,000	28,000,000	-	-	28,000,000
	359,326,556	401,337,315	97,063,677	208,048,884	96,224,754

Particulars	2022				
	Carrying amount	Contractual cash flows			
		Total	Less than 1 year	Between 1 to 5 years	More than 5 years
		----- Rupees -----			
Long term financing	414,588,000	434,892,000	62,554,000	312,770,000	59,568,000
Trade and other payables	11,930,750	11,930,750	11,930,750	-	-
Accrued mark-up	6,638,700	6,638,700	6,638,700	-	-
Contract liability	69,414,802	69,414,802	69,414,802	-	-
Security deposit	28,000,000	28,000,000	-	-	28,000,000
Project payable	110,006,649	110,006,649	110,006,649	-	-
	640,578,901	660,882,901	260,544,901	312,770,000	87,568,000

The contractual cash flows relating to the above financial liabilities have been determined on the basis of mark-up / interest rates effective at the respective year-ends. The rates of mark-up / interest have been disclosed in the respective notes to these financial statements.

23.4 Fair value of financial assets and financial liabilities

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction in the principal (or most advantageous) market at the measurement date under current market conditions (i.e. an exit price) regardless of whether that price is directly observable or estimated using another valuation technique.

The Company classifies fair value measurements using a fair value hierarchy that reflects the significance of the inputs used in making the measurements. The fair value hierarchy has the following levels:

Valuation techniques used to determine fair values

- Level 1:** Quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2:** Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices).
- Level 3:** Inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs).

As at June 30, 2023, all financial assets and financial liabilities reflected in the financial statements approximate to their fair values.

The Company recognises transfers between levels of the fair value hierarchy at the end of the reporting period during which the transfer has occurred.

The Company's policy for determining when transfers between levels in the hierarchy have occurred includes monitoring of the following factors:

- changes in market and trading activity (e.g. significant increases / decreases in activity)
- changes in inputs used in valuation techniques (e.g. inputs becoming / ceasing to be observable in the market)

There were no transfers between level 1, 2 or 3 of the fair value hierarchy during the year.

23.5 Financial instruments by category

Financial assets as per statement of financial position	Amortised cost	
	2023	2022
	--- Rupees ---	
Trade debts	17,664,483	6,708,522
Other receivables	48,324,951	63,658,645
Short term investments	70,076,729	4,844,867
Cash and bank balances	2,782,986	15,266,680
	138,849,149	90,478,714

Financial liabilities as per statement of financial position	Amortised cost	
	2023	2022
	--- Rupees ---	
Long term financing	241,784,000	414,588,000
Security deposit	28,000,000	28,000,000
Accrued mark-up	2,895,391	6,638,700
Trade and other payables	48,130,165	11,930,750
Project payable	-	110,006,649
	320,809,556	571,164,099

23.6 Capital risk management

The Company's prime objective when managing capital is to safeguard its ability to continue as a going concern so that it can continue to provide returns for shareholders, benefits for other stakeholders and to maintain a strong capital base to support the sustained development of its business.

The Company manages its capital structure by monitoring return on net assets and makes adjustments to it in the light of changes in economic conditions. In order to maintain or adjust the capital structure, the Company may adjust the amount of dividend paid to shareholders and / or issuer new shares.

Consistent with others in the industry, the Company monitors capital on the basis of gearing ratio. This ratio is calculated as net debt divided by total capital. Net debt is calculated as total borrowings less cash and bank balances. Total capital is calculated as equity as shown in the statement of financial position plus net debt.

	2023	2022
	--- Rupees ---	
Total borrowings	280,301,000	434,892,000
Less: cash and bank balances	2,782,986	15,266,680
Net debt	277,518,014	419,625,320
Total equity	267,631,959	174,463,469
Total capital	545,149,973	594,088,789
Gearing ratio	51%	71%

For the purpose of calculating the gearing ratio, the amount of total borrowings has been determined by including the effect of short term borrowings under mark-up arrangements (if any).

23.7 RECONCILIATION OF MOVEMENT OF LIABILITIES TO CASH FLOWS ARISING FROM FINANCIAL ACTIVITIES

	Long term finances	Liabilities Accrued interest / mark-up	Total
 Rupees		
Balance as at July 01, 2022	434,892,000	6,638,700	441,530,700
Finances obtained	119,500,000	-	119,500,000
Finances repaid	(274,091,000)	-	(274,091,000)
Finance cost paid	-	(45,575,943)	(45,575,943)
Total changes from financing cash flows	280,301,000	(38,937,243)	241,363,757
Mark-up / interest expense	-	41,832,634	41,832,634
Balance as at June 30, 2023	280,301,000	2,895,391	283,196,391

	Long term finances	Liabilities Accrued interest / mark-up	Total
 Rupees		
Balance as at July 01, 2021	182,696,000	1,981,924	184,677,924
Finances obtained	272,500,000	-	272,500,000
Finances repaid	(20,304,000)	-	(20,304,000)
Finance cost paid	-	(2,750,990)	(2,750,990)
Total changes from financing cash flows	434,892,000	(769,066)	434,122,934
Mark-up / interest expense	-	7,407,766	7,407,766
Balance as at June 30, 2022	434,892,000	6,638,700	441,530,700

24. TRANSACTIONS WITH RELATED PARTIES

Related parties comprise of the Parent company, Associated companies, directors and key management personnel. The Company in the normal course of business carries out transactions with various related parties. Detail of related parties (with whom the Company has transacted) along with relationship and transactions with related parties, other than those which have been disclosed elsewhere in these financial statements, are as follows:

24.1 Name of the related party

Holding Company

Shirazi Investments (Private) Limited (100% shareholding)

Associated Companies (due to common directorship)

Atlas Power Limited

Honda Atlas Cars Pakistan Limited

Atlas Solar Limited (formerly Zhenfa Pakistan New Energy Limited)

Atlas Honda Limited

Atlas Engineering (Private) Limited

Atlas Autos (Private) Limited

Atlas Insurance Limited

Atlas Battery Limited

Atlas Hitec (Private) Limited

Atlas Foundation

24.2 Significant transactions with related parties are as follows:

Names of Company	Nature and Description of Related Party Transaction	2023	2022
		--- Rupees ---	
Atlas Power Limited	Purchase of assets	3,922,536	-
Shirazi Investments (Private) Limited	Services received	426,528	-
Atlas Honda Limited	Revenue earned	151,745,322	71,244,138
	Security deposit received	-	28,000,000
	Sales of assets	256,000,000	-
	Purchase of assets	5,344,561	-
Atlas Battery Limited	Revenue earned	-	37,750,000
Atlas Autos (Private) Limited	Revenue earned	89,327,694	85,145,695
Atlas Foundation	Revenue earned	214,803	4,099,915
	Donation paid	1,800,743	-
Atlas Hitec (Private) Limited	Revenue earned	-	2,800,000
Honda Atlas Cars Pakistan Limited	Advance received	-	69,414,802
	Revenue earned	105,907,090	-
Atlas Insurance Limited	Insurance premium paid	4,617,721	3,244,902
Key management personal	Salary & benefits	20,506,726	-

25. PLANT CAPACITY AND PRODUCTION

	2023 KWH	2022 KWH
Installed capacity-per hour (MW)	8,123	8,123
Installed capacity	58,975,873	28,087,832
Standard generation from installed capacity	8,757,176	4,349,885
Actual net electricity billed	8,779,818	4,386,466

26. RENUNERATION OF CHIEF EXECUTIVE, DIRECTOR AND EXECUTIVE

No remuneration has been paid to chief executive or to any of the director of the Company.

	2023	2022
	--- Rupees ---	
Remuneration paid to executives of the Company is as follows:		
Managerial remuneration	15,196,356	-
Performance bonus	6,500,924	-
Reimbursements	1,871,924	-
Retirement benefits	909,744	-
	24,478,948	-
Number of person	2	-

27. NUMBER OF EMPLOYEES

Total number of employees obtaining remuneration as at June 30, 2023 is 6 (2022: 2) and average number of employees for the year ended June 30, 2023 is 6 (2022: 2).

28. CORRESPONDING FIGURES

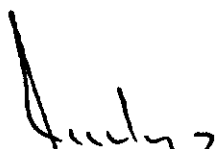
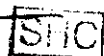
Corresponding figures have been reclassified wherever necessary to reflect more appropriate presentation of events and transactions for the purpose of comparison in accordance with the accounting and reporting standards as applicable in Pakistan. However, no significant reclassification has been made in these financial statements.

29. DATE OF AUTHORISATION FOR ISSUE

These condensed interim financial statements were approved by the Board of Directors and authorized for issue on **15 AUG 2023**



Chairman / Director



Chief Executive Officer



Chief Financial Officer

**3(4)(d)(iv) expressions of interest to provide credit or financing
along with sources and details thereof;**

Not Applicable

3(4)(d)(v) documents describing the net worth and the equity and debt ratios of the applicant, as on the date of the audited balance sheet accompanying the application;

Net Worth

Rs.

Total Assets 641,706,864

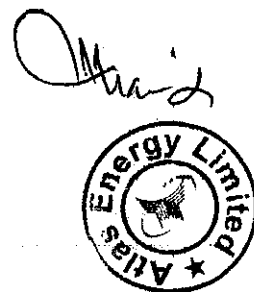
Total Liabilities 374,074,905

Net worth 267,631,959**Ratios**

Debt to Asset Ratio = $\frac{\text{Total Debt}}{\text{Total Assets}}$ = 0.44

Debt to Equity Ratio = $\frac{\text{Total Debt}}{\text{Total Assets}}$ = 1.05

Interest Coverage Ratio = $\frac{\text{Profit before Interest \& Tax}}{\text{Interest Expense}}$ = 3.61

**Atlas Energy Limited****Registered Office: 64/XX, Khayaban-e-Iqbal, DHA Phase 3, Lahore.****Tel: +92-42-37132637-38-39, Fax: +92-42-37132634**

3(4)(d)(vi) * a reasonably detailed profile of the applicant and the applicant's senior management, technical and professional staff;



Atlas Group:

Mr. Yusuf H. Shirazi, laid the foundation of Atlas in 1962 with the establishment of Shirazi Investments (Pvt) Limited. Atlas is a diversified group dealing in engineering, power generation, financial services and trading, embodying the spirit of development as it endeavors to fuel the growth of Pakistan's economy. It comprises of 16 companies, four of which are quoted on the Stock Exchanges of Pakistan (Atlas Honda Limited, Atlas Battery Limited, Atlas Insurance Limited & Honda Atlas Cars (Pakistan) Limited. Atlas shareholders' equity now stands at 200 billion rupees; assets have increased to 250 billion rupees; personnel strength to 10,000 and annual sales have crossed 160 billion rupees.

Atlas Energy Limited

Atlas Energy Limited was incorporated as an unquoted - public limited company on 18 May 2016, under the Companies Ordinance, 1984. The registered office of the Company is situated at Building No. 64/XX, Khayaban-e-Iqbal, Phase III, D.H.A, Lahore. We are providing cost effective Solar solutions for industrial and commercial consumer through sale of electricity.

Atlas Energy has successfully installed Projects of 11 MW on energy sale and EPC model while approximately 7.0 MW projects are in pipeline.

Currently Atlas Energy have Assets of PKR 335.45 Million and being a part of Atlas Group the company has strong relationship with Financial Institutions, as well as ability to execute bigger Projects.

Vision:

A leading Company in Solar industry in all respects – providing cost effective tailored solutions for industrial and commercial consumer through sale of power, Engineering, Procurement and construction (EPC), operation and Maintenance and giving attractive return to investors being responsible corporate citizen and employer of choice.

Mission:

Being Competitive to provide unique, advance and effective solar solutions to industrial and commercial customers in safe, reliable and environment friendly manner acting with integrity following sound practices with a sense of service in a culture that respects and values the satisfaction of our customers.

Atlas Energy Limited

1.1. Introduction

- 1.1.1.** Atlas Energy Limited was incorporated as an unquoted - public limited company in Pakistan on 18 May 2016, under the Companies Ordinance, 1984.
- 1.1.2.** The registered office of the Company is situated at 64/XX, Khayaban-e-Iqbal, Phase-III, DHA, Lahore.
- 1.1.3.** The Company was incorporated to provide cost effective tailored solar solutions for industrial and commercial consumer through sale of power, Engineering, Procurement and construction (EPC), operation and Maintenance and giving attractive return to investors.
- 1.1.4.** The Applicant Company has the financial strength to meet with the requirements of the Projects through its parent Company Shirazi Investments Private Limited - parent company held 100% ordinary shares of the Company.
- 1.1.5.** The Applicant Company has three Directors, besides the Auditor and Legal Advisor named below:
- **Directors:**
 - Mr. Fahim Ali Khan
 - Mr. Saquib H. Shirazi
 - Mr. Maqsood Ahmad
- 1.1.6. Membership of Industry & Associations:**
- Lahore Chamber of Commerce & Industry (LCCI)
 - Pakistan China Joint Chamber of Commerce & Industry (PCJCCI)
 - Pakistan Engineering Council (PEC)
 - Alternative Energy Development Board (AEDB)

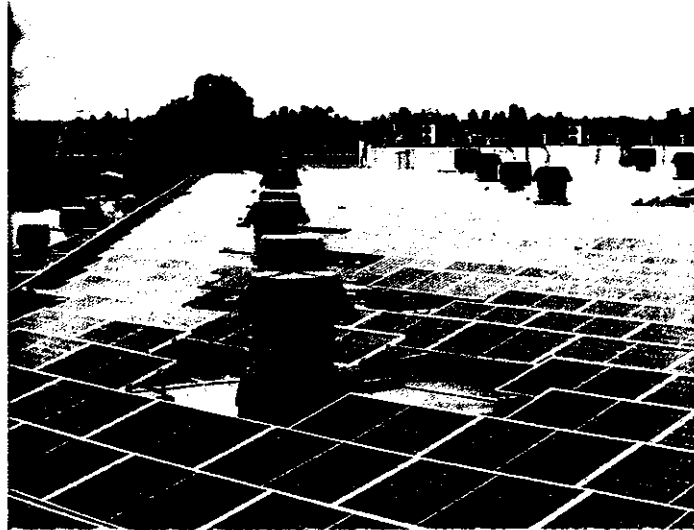
List of Projects:

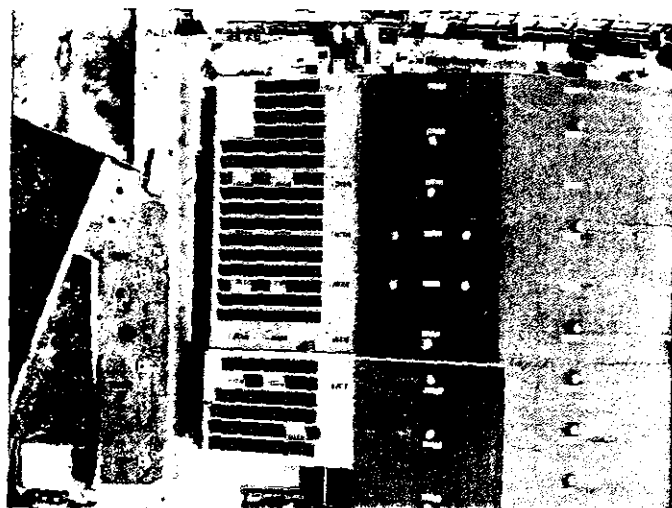
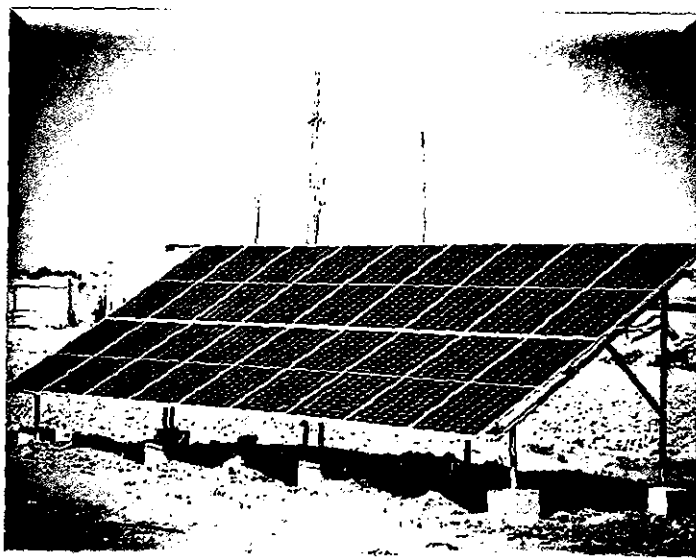
Some of our successful completed projects are as follows:

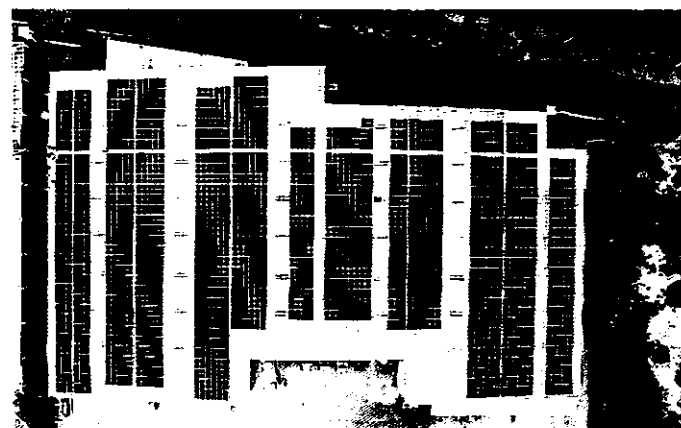
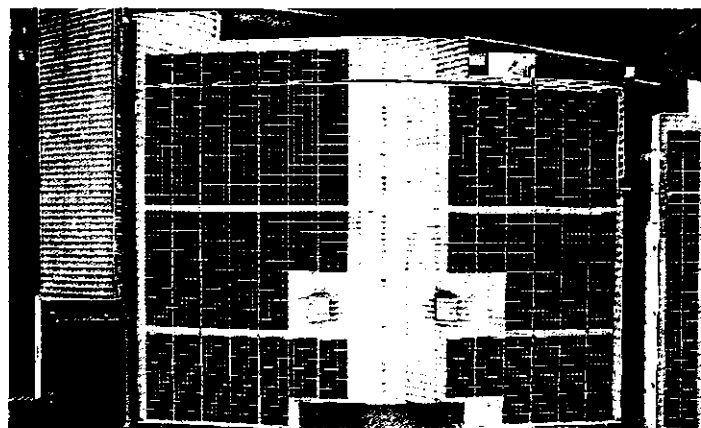
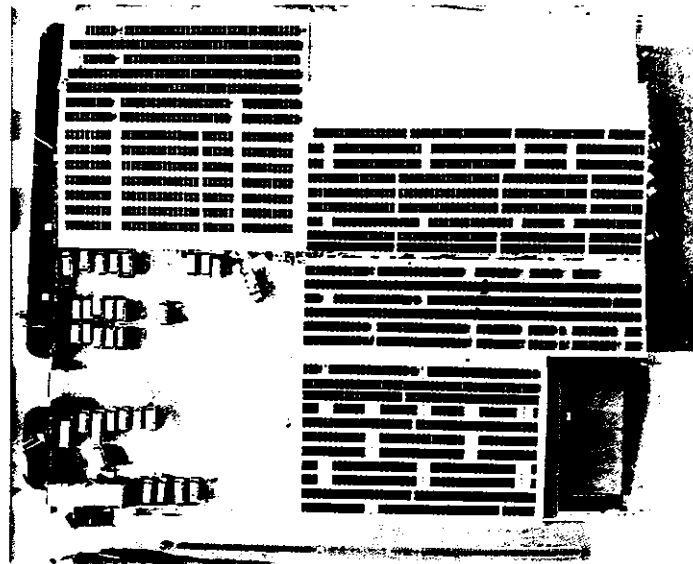
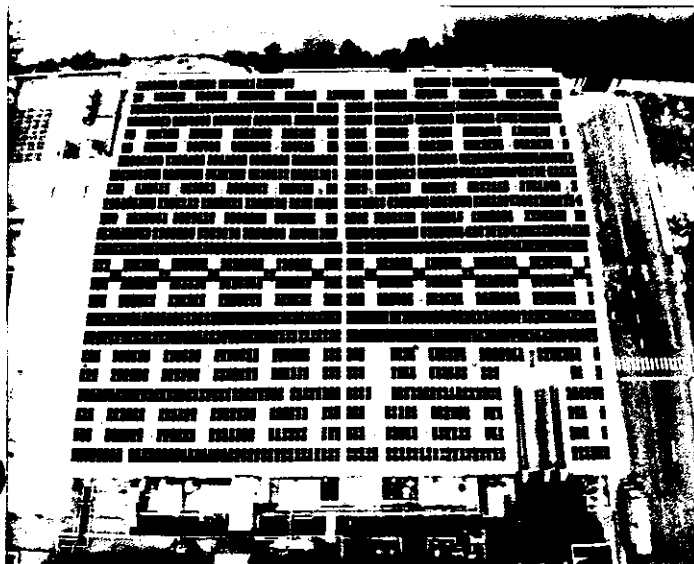
Sr. No.	Category	Project Name/ Location	Nature of Work	Size of Installation (kWp)
1.	Industrial	Honda Atlas Cars Pak Ltd. (43 km Multan Rd, Manga, Lahore)	EPC	497.70
2.	Domestic	DHA Phase-V, Karachi	EPC	6.00
3.	Domestic	DHA Phase-V, Karachi	EPC	6.00
4.	Industrial	Engine Plant (Atlas Honda Ltd. 26/27 Km Lahore-Skp. Road, Skp)	EPA	589.05
5.	Industrial	Pakistan Cables (Nooriabad, Sindh)	EPA	7.20
6.	Industrial	Parking Sheds (Atlas Honda Ltd. 26/27 Km Lahore-Skp Road, Skp)	EPA	405.79
7.	Domestic	Zaman Park Lahore	EPA	12.00
8.	Industrial	Subassembly/ Frame Line (Atlas Honda Ltd. 26/27 Km Lahore-Skp Road, Skp)	EPA	769.08
9.	Industrial	Component Parts (Atlas Honda Ltd. 26/27 Km Lahore-Skp Road, Skp)	EPA	663.25
10.	Industrial	DCC-2 (Atlas Honda Ltd. 26/27 Km Lahore-Skp Road, Skp)	EPA	752.40
11.	Industrial	Atlas Industrial Park Karachi Plot No. 347A, Shed No 2, 15th Miles, National Highway, Landhi, Karachi.	EPC	864.56
12.	Industrial	Atlas Honda Limited Karachi F-36 Estate Avenue, S.I.T.E. Area Karachi.	EPC	96.3

13.	Industrial	Atlas Battery Limited Karachi D-181 Central Avenue, S.I.T.E Area Karachi.	EPC	301.74
14.	Commercial	Atlas Vocational Training Institute Sheikhupura	EPC	72.76
15.	Industrial	Stamping Building (Atlas Honda Ltd. 26/27 Km Lahore-Skp Road, Skp)	EPA	215.82
16.	Industrial	Honda Atlas Cars Pak Ltd. (43 km Multan Rd, Manga, Lahore)	EPC	970.1
17.	Industrial	CBU/SPL Building (Atlas Honda Ltd. 26/27 Km Lahore-Skp Road, Skp)	EPA	2250.85
18.	Industrial	Test Track (Atlas Honda Ltd. 26/27 Km Lahore-Skp Road, Skp)	EPA	2621.45

Total Projects Installed: 11,102.05 kWp







2. Profile of Management

2.1. Mr. Frahim Ali Khan

Director

Mr. Frahim Ali Khan has over 50 years of experience in General Management, Finance, Investment and Taxation. He graduated in Commerce from the Karachi University in 1965 and also obtained a degree in law from the same University. He has also attended the Senior Managers' Program from Harvard University, USA, Financial Management from Stanford University, USA, and General Management Program from Insead University, France. He joined the Atlas Group in 1967 and has served in different senior positions.

Contact

Wapda Town Lahore, Pakistan
+92 3004929474 (Mobile)
mahmood6789@yahoo.com

www.linkedin.com/in/mahmood-ahmed-0311b948 (LinkedIn)

Top Skills

Construction Management
Troubleshooting
Business Development

Languages

Urdu
English

Mahmood Ahmed

SOLAR PV DESIGN & SIMULATION | PROJECT MANAGEMENT| TEAM LEAD

Lahore District, Punjab, Pakistan

Summary

Having 12 years of experience in Solar PV System Design, Supervision, Estimation, and Executions including O&M in different organizations.

Having strong Grip of System Design using *PVSYST*, PVSOL*, SketchUp, Microsoft Office, Autocad

Team Leads for Execution of Projects, Best Technical expertise on PV Grid-tied, Hybrid, BESS, Hybrid and OFF Grid Systems.

Experience

Atlas Energy Limited (Atlas Group)
Manager Projects Design & Executions
January 2018 - Present (5 years 2 months)
Pakistan

Project Role As Manager Technical Operations Design and Executions. Worked on

IPP 100MWp solar grid-tied system

PPA-based 10MWp systems.

EPC-Based 10MWp Solar Grid Tied System

Having work experience of BESS system on 1.2MWP Grid Tied system

Atlas Power Limited
Technical Project Manager
January 2018 - Present (5 years 2 months)
Lahore District, Punjab, Pakistan

Greenewable solar (pvt) Ltd.
Manager Technical
February 2016 - Present (7 years 1 month)
Pakistan

EWORKZ POWER PVT LTD
Manager Technical

September 2015 - January 2016 (5 months)

Offices: Lahore

Manage and lead all Technical staff

Manage after sale services and new installation accordingly.

Design and Estimation of Solar PV ON Grid, OFF Grid and Hybrid Systems.

Domestic, Commercial and Industrial Energy Audits for Solar PV System.

Supervision of Installation, Commissioning and Manage after sale services.

Design and Consultancy for Mega Projects.

Designing and Installation Supervision of Solar Tubewell.

Solar PV Softwares:

PVSyst

PV Size

Helioscope

Skelien

Compass (Lorentz)

Smart Draw

Google SketchUp

Premier Energy Company PVT LTd

Assistant Manager Technical

February 2014 - September 2015 (1 year 8 months)

Offices: Lahore, Faisalabad, Multan, Rawalpindi

Position Descriptions

Design and Estimation of Solar PV ON Grid, OFF Grid and Hybrid Systems.

Domestic, Commercial and Industrial Energy Audits for Solar PV System.

Installation, Commissioning and providing after sale services.

Design and Consultancy for Mega Projects.

Supervision of Solar PV Installation

Brand development, advertising revenue.

Developed brand strategy and statistics systems.

Strategic Consulting, including business plan & sales strategy development.

Advising new businesses on formation of corporations and business structures, drafting privacy policies and structuring commercial transactions.

Solar PV Softwares:

PVSyst

PV Size
Skelien
Compass (Lorentz)
Smart Draw
Google SketchUp

Efficient Energy Company (EEC)

Assistant Technical Manager

June 2011 - February 2014 (2 years 9 months)

Employment with Efficient Energy Company

- # Design and Estimation of Solar Systems for domestic and commercial Projects.
- # Solar Project Execution Plan Installation of Solar System, after completion of Project
- give Technical Support to the Customer
- # Research and Development (R&D) of Solar Products and Systems.
- # Establish and Develop Company's Profile.
- # Project Management and Handling Projects.
- # Manage and Control all Technical Problems.
- # PLC Control and Automation, Vfds and Inverters.
- # Sales, Maintenance and Repairing of Solar lights.
- # Sales of Domestic, Commercial and Industrial Lights Products.
- # Design of Solar System Dc cards, Calibration, troubleshoot and Repair Dc Cards.

Education

University of South Asia Lahore

BSc Electrical Engineer, Electrical Engineering (POWER) · (2007 - 2011)

TANZIL UR REHMAN

Mailing Address: House No: 170-A, Ali Town, Raiwind Road Lahore.

Phone: +92-3136134088 **Email:** tnzelurrehman@gmail.com

Career Objective:

I am looking forward to work for an organization which offers Competitive and Congenial working Environment with immense growth opportunities, so that I may effectively utilize my technical and managerial skills to achieve personal and professional goals.

Career Summary:

As a professional Mechanical Engineer I have more than 9 years of diversified experience of working with Independent Power Producers. During my career, I have worked in Power Plant operations and maintenance, Planning of Power Plant Operations, project management and managing contractual obligations with relevant government agencies. Currently, I have been involved in planning and development of new opportunities in renewable energy sector from the platform of Atlas Energy limited.

Qualification:

- | | |
|---|-----------------------------------|
| ➤ MBA Finance (2018-2020) | IBA, University of Punjab, Lahore |
| ➤ BSc Mechanical Engineering (2009-2013) | UET Lahore |
| ➤ Intermediate (2007-2009) | BISE Multan |
| ➤ Matriculation (2005-2007) | BISE Multan |

Work Experience:

Atlas Energy Limited

(April 2019-Present)

Currently working as **Manager Solar Projects** at Atlas Energy Ltd to provide complete solar off grid and on grid solutions for commercial, industrial & domestic purpose.

My responsibilities are

- Understand scope of the project, site assessment & system sizing.
- Generate details of annual energy yield through PV syst simulation
- Leading technical team for innovative PV technology solutions and assisting other team members with preliminary project design and implementation, modeling and commissioning.
- Site inspections during project installation, commissioning and operation.
- Developing internal process and associated operating platforms in such a manner that strengthens long-term standardization of an effective EPC delivery approach.
- Meeting with client and suggest best possible solar solutions.
- Submitted proposal with competitive pricing and with advance technologies.
- Detailed timelines for each activity to be submitted and make sure each item to be delivered in time
- Responsible to make sure all the safety measures during the project implementation.
- Operations and maintenance of solar PV power plants installed by Atlas Energy.

Major Projects completed

- **504.8 KWp** On grid solar project at **Honda Atlas Cars Pakistan Limited.**
- **3.2 MW** On grid solar project at **Atlas Honda Limited.**
- **5 MWp** On-grid solar project at **Atlas Honda Limited SKP.**

Atlas Power Limited (225 MW)**(April 2017-April 2019)**

Worked as **Assistant Manager Technical** at 225 MW Combined Cycle IPP Power Plant.

My Responsibilities were:

- Performance monitoring and analyzing the plant operating parameters to predict the potential faults and taking the appropriate steps.
- Prepare and execute mitigation plan to fix performance and efficiency issues related the plant equipment/systems.
- To calculate performance of critical plant equipment like Diesel Engines, Turbochargers, HRSG, Steam Turbine, Cooling Tower and Fuel purifiers against designed performance bench marks and identify negative drivers in case of declined performance.
- To plan daily Diesel Engines running hours in coherence with maintenance schedules to reduce unnecessary downtime and ensure maximum dispatch.
- I have complete understanding of Power purchase agreement (PPA) for IPP's and Fuel Supply Agreement with the power purchaser and responsible for preparing energy invoices (EPP) and capacity invoices (CPP) as per PPA.
- EHS Evaluation of the Plant.

Previous Experience**Nishat Chunian Power Limited (200MW):****(January 2014-March 2017)**

Worked as Operations Planning Engineer and Shift Operations Engineer at 200MW Combined Cycle Power Plant.

My responsibilities include:

- Supervise safe, efficient and smooth operation of plant during shift hours taking care of load demand, according to OEM recommendations.
- Communication with the NPCC regarding the increase and decrease in dispatch levels due to scheduled outages, washing outages, forced outages and partial loading of the plant.
- Hot & cold startup of Engines & turbine according to NPCC&RCC demands in accordance with PPA.
- Responsible to prepare Daily Demand Dispatch report, Daily Operations Report (DOR) comprising Daily Fuel Consumption, Plant Generation, House Load, Plant Heat Rate, and Plant Efficiency and to prepare weekly and monthly reports of plant and forward it to operations Manager and plant Manager.
- Performing the functions of troubleshooting and propose remedial measures in case of emergency situation such as sudden breakdown, abnormal tripping or Blackout and coordinate with maintenance staff for preventive or corrective maintenance for reducing downtime minimum.
- To continuously monitor the fuel oil and lube oil parameters and water chemistry for smooth operation of the system.

Professional skills:**Computer Skills:**

C++ programming, Auto CAD, Solid Edge, MATLAB, Primavera P6 basic.
Expertise in MS Office (MS Word, MS Excel, MS Power point, MS Project).

Management Skills:

- An effective communicator with strong analytical, problem solving & organizational abilities.
- Skilful Presenter (Experience of delivering Technical and Non-Technical Presentations in Front of 50-100 people).
- Sound knowledge of Technical Reports Writing and Evaluation.
- Committed team player with flexible approach to maintain better working relationships within and outside organization.

Engr.Rizwan Ullah

Postal Address: H # 4090, St. # 09, H-Area, New Muzaffarabad Landhi Karachi, District Karachi Malir.

Mobile: +92334-3114582

Email: rizwanullah765@yahoo.com



OBJECTIVE

Seeking a challenging opportunity in an organization with highly competitive and demanding environment where I can exploit my knowledge and skill with full spirit.

EDUCATIONAL QUALIFICATION

Degree	Institute/ Board	Division/Grade	Year
M.Engg. (Electrical Power)	NED University of Engineering and Technology Karachi	First Division	2018
PGC (Electrical Power)	CCEE NED University of Engineering and Technology Karachi	First Division	2016
B.Sc. (PEC Regr.) (Electrical Engineering)	University of Engineering and Technology Peshawar	First Division	2014
HSC (Pre Engineering)	Board of Intermediate Education Karachi	First Division	2009
Matric (Science)	Board of Secondary Education Karachi	First Division	2007

FINAL YEAR PROJECT

- Water flow control through IR radiations using at89s52 Microcontroller based on Tx-Rx and temperature sensors.

PROFESSIONAL EXPERIENCE

❖ Atlas Energy Limited (Atlas Group) Karachi

From: 01-07-2019 to Present

Designation: **Manager Projects**

Job Description:

- Monitor, Identifies and Analysis all projects costs with a view of facilitating the completion of the Project at minimum cost and within budget limits.
- Prepared the Bill of Quantities, Capability Criteria and Special Terms and Conditions for contacts of Installation and Commissioning of Civil, Structure and Electrical work.
- Installation and Commissioning of 1.2MWp RCC Roof Mounted Solar Power Project Atlas Industrial Park, Atlas Battery and Atlas Honda Karachi Plant.
- Installation and Commissioning of 2MWp PEB Roof Mounted Solar Power Project Atlas Honda and Atlas Autos, Sheikhpura.
- Installation, Commissioning, Operations and Maintenance of 2.04KWp PEB roof Mounted Solar Power Project Pakistan Cables Site, Nooriabad.
- Installation, Commissioning, Operations and Maintenance of 405KWp Car Porch Solar Power Project Atlas Honda, Sheikhpura.
- Installation, Commissioning, Operations and Maintenance of 589KWp Double Tee Roof Mounted Solar Power Project Atlas Honda, Sheikhpura.
- Installation, Commissioning, Operations and Maintenance of 12KWp Roof Mounted Solar Power Project DHA, Karachi.
- Design of LV Panel, SLD, AC/DC Cables as per load calculation and strings as per Invertors and Modules specifications.
- Interfacing of Data Logger with Invertors and Weather Station in order to receive remote information and monitoring.
- Installation, Commissioning, Operations and Maintenance of ABB, Fronius and Huawei Invertors and Jinko Solar Modules.

❖ **Atlas Metals Pvt. Limited (Atlas Group) Karachi**

From: 01-01-2018 to 30-06-2019

Designation: **Assistant Manager Maintenance**

Job Description:

- Maintenance of DG Set on daily/monthly and running hour basis that is used in case of unavailability of power supply from K Electric.
- Maintenance of power factor capacitor bank panel in order to ensure proper power factor during peak as well as off peak load time.
- Implementation of PTW (Permit to Work) System in all the three Lead, Aluminum and Polymer Plants according to HSE Standards to ensure human safety.
- Ensure normal operation of the complete Automation Control System that is S7-1200 PLC System and VFD's in all the three Plants.
- Implementation of proper preventive, predictive maintenance by generating proper work order system in Maintenance Department.
- Implementation of Energy Conservation Plan by introducing Energy Audit Schemes in order to minimize per unit cost.
- Ensure availability of all the utilities that is electrical power, natural gas, oxygen gas, SNG gas, LPG gas, water and DG set for smooth operation of all the three Plants.
- Regular inspection of all types of machines/motors installed in all the three plants to ensure smooth running of the plant.
- Ensure availability of all the spare parts in the store to meet the emergency condition in order minimize production loss.
- Monthly/Yearly PPM, Protection and Testing of Distribution and Power Transformers.

❖ **Pakistan Steel Bin Qasim Karachi**

From: 21-08-2015 to 20-08-2017

Designation: **Trainee Engineer**

Job Description:

- Cable Selection according to the load requirement, Russian, PVC and XLPE cables joint and end termination.
- Daily Load Calculation, analysis and trend of Gulshan-e-Hadeed Phase-I, Steel Town and entire Plant zone wise.
- Record, analyze and report energy consumption and cost on a regular basis in order to identify Energy Saving Opportunities.
- Repair/Maintenance and daily patrolling of 04 Nos. of 132KV Transmission Lines consisting Single Line and Double Line lattice type towers configuration.
- Monthly reading and hence energy bill calculation for at least 8000 Domestic and Commercial Consumers of Gulshan-e-Hadeed and Steel Town.
- Plan and execution of PPM and H.V Testing of BOCB's, MOCB's and VCB's ranging from 600A to 2500A more than 1000 units.
- Schedule and its daily execution regarding the PPM, inspection and capital repair of all equipment installed in 50 Nos. of Distribution Stations located all over the Plant.
- Monthly/Yearly PPM, Protection and Testing of Distribution and Power Transformers ranging from 750KVA to 63MVA.

TECHNICAL SKILLS AND TOOLS

- Extensive experience of Microsoft Office, and Electronics Software's like Pspice and ETAP.
- AutoCAD 2D, C++ Programming Language, Matlab and Assembly Programming Language.

KEY SKILLS

- Excellent communication and interpersonal skills
- Organized and methodical with good time management and planning.
- Ability to remain calm and focused under pressure and work within strict deadlines.
- A committed team player, able to motivate and inspire others and work in a cohesive team.

ACHIEVMENTS

- Received Prime Minister Youth Award Program in 2017.
- Selected for Prime Minister Youth Program Scheme in 2016.
- Received Youth Talent Award from Chief Minister KPK in 2013.
- Top 10 Position in Board of Secondary Education Karachi in 2007.

EXTRA-CURRICULAR ACTIVITIES

- **Cricketer:** Performed as Opener at School, College and University level.
- **Social worker:** Blood Secretary and food monitor at university level.

SEMINARS AND WORKSHOPS

- "SMART GRID, Operations Control & Implementation" by Dr. Tariq Masood, Organized by CCEE in NEDUET.
- Two days "Industrial Safety and Accident Prevention Seminar" on 04 & 05 January, 2016 Organized by Safety Department Pakistan Steel Mills.

PERSONAL INFORMATION

- Father's Name: Muhammad Akram
- Date of Birth: 26-Feb-1991
- Nationality: Pakistani
- CNIC: 42501-6543984-1
- PEC : ELECT/44899
- Marital Status: Single
- Languages: English, Urdu

REFERENCE

- Will be provided on request.

ATIF SHABBIR

MECHANICAL ENGINEER

Current Location: G-1/16 A Gulfishan Society, Malir Halt, Karachi Pakistan

Mobile No: +923452409929

Passport No: DL5138602

Email: atifminhasraiput@gmail.com



CAREER SUMMARY

Experienced and results-driven Solar Manager with a proven track record of success in overseeing solar energy projects from inception to completion. Possesses deep knowledge of renewable energy systems, with a focus on maximizing energy efficiency and sustainability. Skilled in project management, team leadership, and regulatory compliance within the solar industry. Adept at fostering collaborative relationships with stakeholders to achieve project goals on time and within budget. Strong analytical skills combined with a passion for environmental conservation and renewable energy solutions.

PROFESSIONAL EXPERIENCE - OBJECTIVE

Atlas Energy Limited, Pakistan (July 2019 – Present) (Manager Solar Project & Operation)



- Experience in installing solar systems for residential, commercial & industrial applications.
- Expertise in assessing site suitability for solar installations and optimizing system performance.
- Ability to read and interpret technical drawings and schematics.
- Demonstrated knowledge of solar panel mounting, wiring, and connection procedures.
- Familiarity with inverters, charge controllers, batteries, and other solar system components.
- Competence in using tools and equipment specific to solar installation.
- Lead or participated in solar system installation projects from start to finish.
- Coordinated with clients, engineers, and other stakeholders to ensure successful implementation.
- Managed project timelines, budgets, and resources effectively.
- Conducted inspections and quality control checks to ensure compliance with standards.
- Performed system testing, including voltage measurements and performance evaluations.
- Implemented corrective actions to address any issues or deficiencies.
- Educated customers about the benefits of solar energy and system maintenance.
- Demonstrated a strong commitment to safety protocols and adherence to regulations.
- Implemented safety measures to protect personnel and ensure a safe work environment.
- Coordinates materials and assists in the logistics, its shipment and receipt at construction site.
- Monitors work in progress and prepares weekly report of the status of each assignment.

Atlas Metals (PVT) Limited, Pakistan (January 2018 – June 2019) (Assistant Manager Technical Division)



- Routine maintenance and troubleshooting of machines situated at Polymer, Lead and Aluminum recycle plants and their utilities.
- Assist HOD in preparation of annual preventive maintenance schedule.
- Ensure all maintenance records (SOPs, ISO Docs & PM Cards) are maintained.
- Responsible for technical coordination with procurement department, before and after receiving the spare of inventory.
- Providing assistance in ISO Certification (14001 & 45001) and implementation.
- Assist the HOD in preparation of contracts and agreements and verification of invoices for project & maintenance works.
- Coordination with vendors, suppliers and OEM for purchase and installation of equipment.
- Contributes to team effort by accomplishing related results as needed.

Tapal Energy Limited, Pakistan (January 2017 – January 2018)
(Trainee Engineer- Power Generation)



- 12x11.34 MW Wartsila Diesel Engines (Running on HFO) with MAN turbochargers.
- Understanding the P&IDs of plant including fuel system, lube oil system, cooling water system, air system, steam system and fire-fighting system.
- Understanding of plant operations including startup, shutdown, plant island mode, equipment changeover and condition monitoring.
- Understanding of Fuel and Lube Oil Purification units, RO unit, Auxiliary and Waste Heat Recovery Boilers.
- Understanding of Reciprocating compressors and pumps, screw pumps, centrifugal pumps and pneumatic pumps.
- Hands-on participation in scheduled and breakdown maintenance activities of engines and their auxiliaries and managing inventory, CMMS, daily and monthly reports.

INTERNSHIPS

Karachi Shipyard & Engineering Works (January 2015)
(Engineering Intern)



- Observe different activities, i.e. welding inspection and Nondestructive Testing.
- Radiography of Steel Sheet to identify defects.
- Manufacturing of Oil Tanker Ship, collaboration with China & Turkey.

Pakistan International Airline (June 2015)
(Engineering Intern)



- Machining operations
- NDT Testing Methods
- Composite Material Maintenance Department
- Engine overhauling

EDUCATIONAL CREDENTIALS

- **B.E (Mechanical)** from *NUST-PNEC Karachi*, in 2016
- **F Sc (Pre-Engineering) A+** from *Bahria College Karsaz Karachi*, in 2012
- **SSC (Science) A+** from *Minhaj Model School Karachi*, in 2010

TRAINING & CERTIFICATIONS

- Certificate in Information Technology (CIT) from Pakistan Advance Software Service (PASS)
- Initiating and Planning Projects (online course authorized by University of California, Irvine and offered through Coursera)
- Solar PV Design, Integration & Performance (PV101) from ETRC.
- Technical Training on Solar Energy from Jinko Solar.
- Introduction to Renewable (RE100) from Solar Energy International.
- AUTOCAD from Ministry of Information Technology (Govt of Pakistan).
- HSE Management System and Internal Auditors Training for ISO-14001 & ISO-45001
- Permit to Work (PTW) & Lock Out/Tag Out (LOTO) Training from HSE department
- Solar Energy System design by The State University of New York.
- Project Management Tracker from Coursera

ADDITIONAL SKILLS

- Efficient Team player & Team building skills
- Time Management
- Highly energetic and self-motivated resource.
- Excellent communication & leadership skills.
- Apt command on MS office applications.

3(4)(d)(vii) profile of sub-contractors, if any, along with expressions of interest of such sub-contractors;

3(4)(d)(ix) verifiable references in respect of the experience of the applicant and its proposed sub-contractors;

3(e) * technical and financial proposals in reasonable detail for the operation, maintenance, planning and development of the facility or system in respect of which the license is being sought;

**3(4)(d)(vii) employment records of engineering and technical staff
of the applicant proposed to be employed;**

Atlas Energy already have experienced team having hand on
experience of EPC and O&M of Solar Plants



Technical & Financial Proposal
for
the Development of a 950.625 kWp
Solar Power Plant

Location:

Atlas Engineering Limited
Atlas Industrial Park, 15th Miles, National Highway, Landhi, Karachi.

Prepared by:

Atlas Energy Limited

1. Executive Summary

This feasibility study evaluates the costs, practicality, and expected outcomes of a rooftop solar photovoltaic (PV) installation at two locations:

- **Location:** Atlas Engineering Limited, Atlas Industrial Park, 15th Miles, National Highway, Landhi, Karachi.

2. Project Brief

Atlas Energy plans to install a 950.625kWp Solar Power Plant under PEPA mode. The proposed capacity is based on current and projected future loads. Key outcomes include:

- **Technical Site Analysis**
- **Financial Analysis**

2.1. Technical Site Analysis

The sites are suitable for a solar PV system, with "good" solar insolation assumed. The system design factors include a panel azimuth of 10° SE & NW, a panel tilt of 8°, and satisfactory roof conditions.

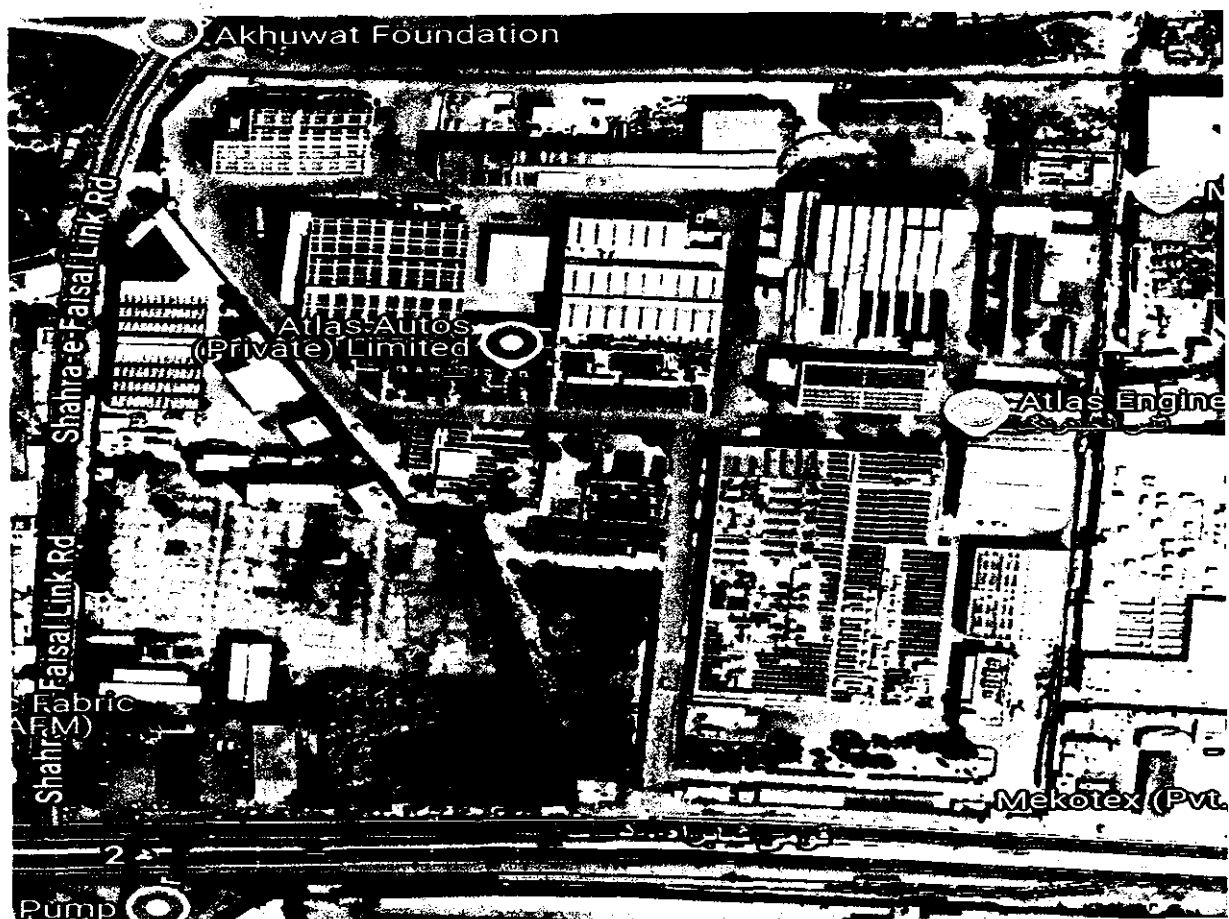
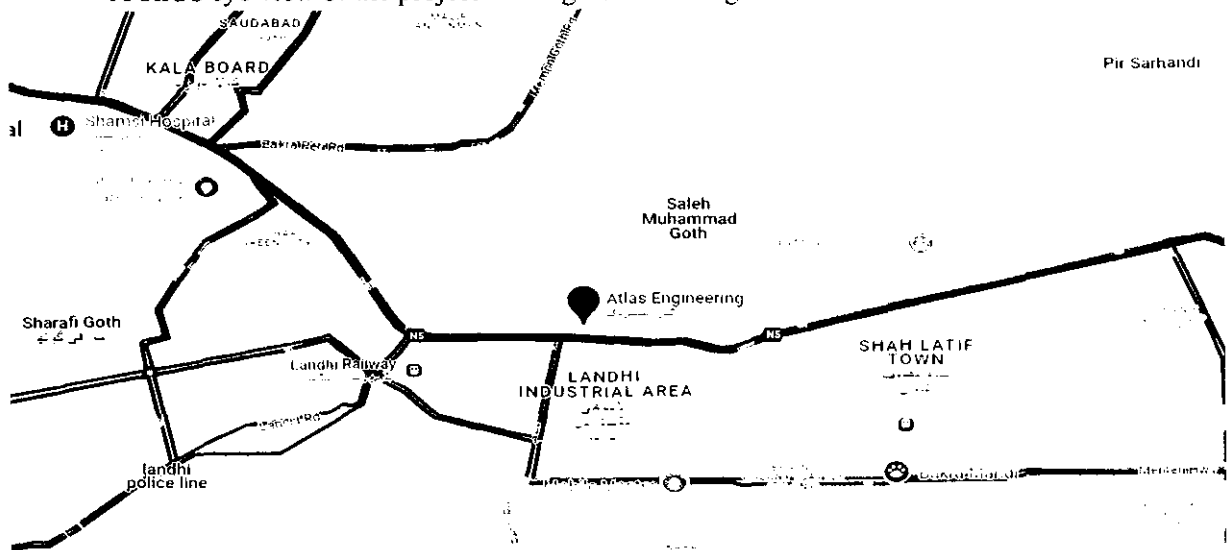
- **System Capacity:** 950.625kWp
- **Annual Production:** 1,332,396 kWh
- **PV Module:** JKM545M-72HL4-TV (545 Wp)
- **Inverters:** Sizes ranging from 20 KW to 125 KW

2.1.1. Site Coordinates & Location

Location		Coordinate	
Location: Atlas Engineering Atlas Industrial Park, 15th Miles, National Highway, Landhi, Karachi.		Latitude:	24°51'28.8"N
		Longitude:	67°13'53.4"E

Location maps, site maps, land

A bird's eye view of the project site is given in the figure below



Location: Atlas Engineering Limited
Atlas Industrial Park,
15th Miles, National Highway, Landhi, Karachi.

2.1.2. Site Conditions

A comprehensive analysis was conducted, including:

- **Global Horizontal Irradiation**
- **Shading Analysis**
- **Area Calculation for Modules**

2.1.3. Technology Review & Selection

- **PV Modules:** JKM545M-72HL4-TV
- **Annual Generation:** 1,332,396 kWh
- **Inverters:** High efficiency (98.5%-98.6%) inverters with a variety of sizes.

2.1.4. Solar PV Yield Estimation and Simulation

Energy yield predictions using PVSyst software provide the basis for calculating project revenues. The simulation considered factors like solar resource, temperature conditions, and plant layout.

2.1.5. Working Conditions

The system ensures zero grid export, with the solar production dynamically adjusted to match site consumption.

2.1.6. Plant Characteristics

The plant features a 230/400 V, 50 Hz, three-phase system with built-in inverter features for voltage regulation and frequency response.

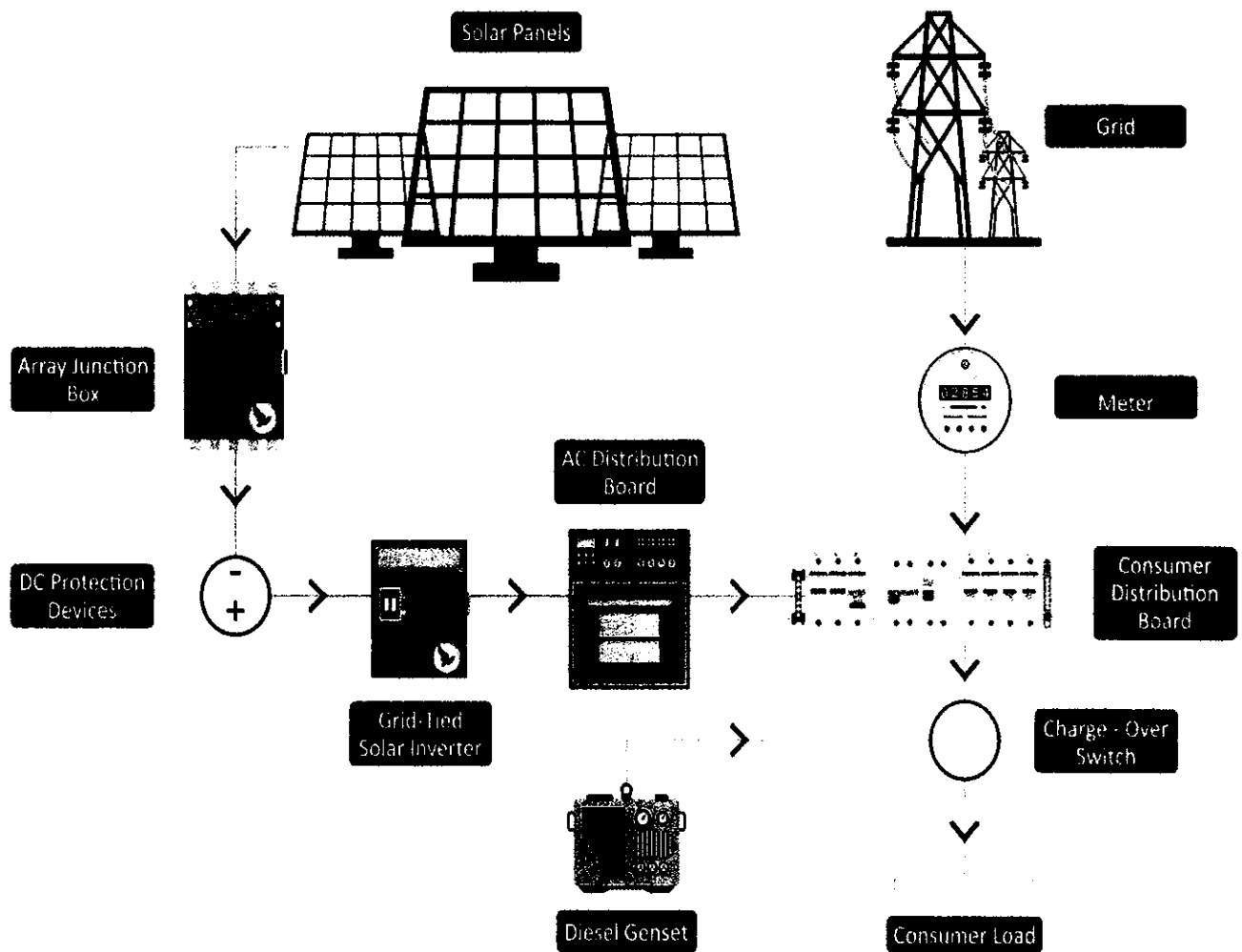
2.1.7. Design Parameters

Key design considerations include:

- **Shading assessment**
- **Optimized PV layout**
- **Module cleaning strategy**

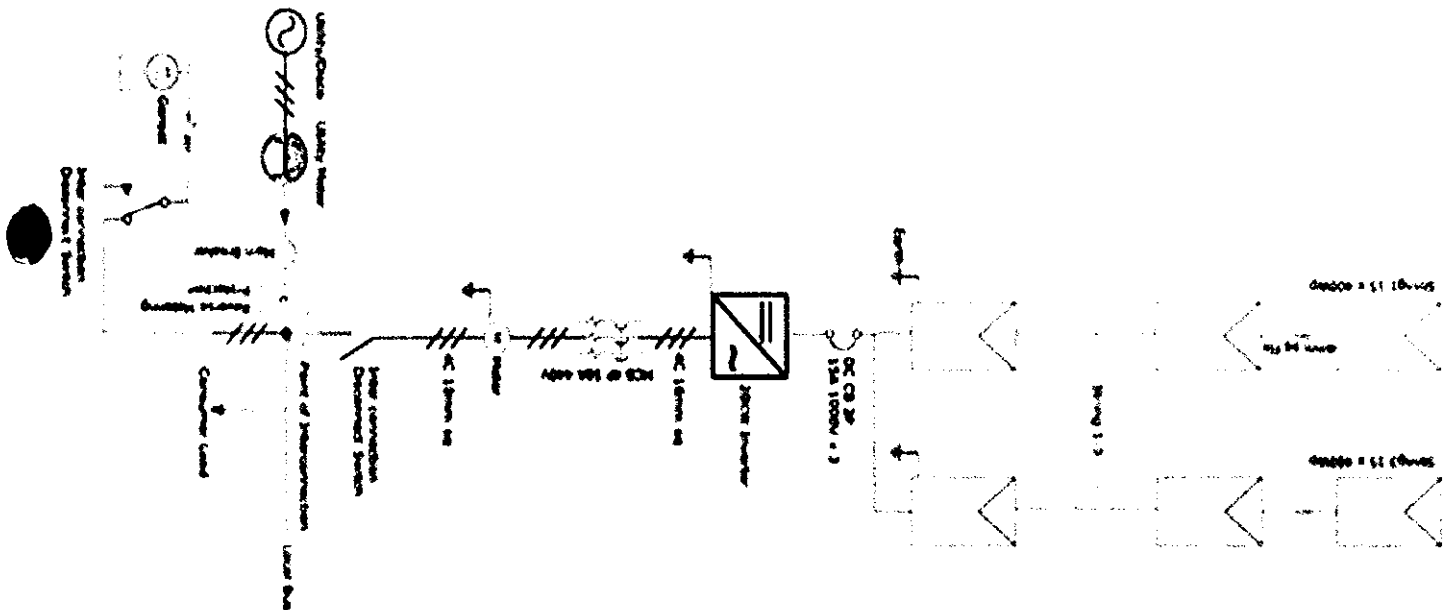
2.1.8. Concept Design

A detailed concept design and layout are provided.



2.1.9. Single Line Diagram

The single line diagram includes PV arrays, DC/AC cabling, protection devices, and energy metering.



2.1.10. Operation and Maintenance Strategy

- **Operation:**

- **Continuous Monitoring:** Online Monitoring will be opt to check real-time performance and detect anomalies.
- **Performance Analysis:** Regular analysis of performance data to optimize energy yield and identify potential issues.
- **Energy Management:** Implement energy management practices to maximize energy production and reduce losses.

- **Maintenance:**
 - **Routine Inspections:** Conduct monthly and biannual inspections as detailed in the O&M plan.
 - **Preventive Maintenance:** Scheduled maintenance activities to prevent equipment failures.
 - **Corrective Maintenance:** Address any issues identified during inspections or reported by the monitoring system.

2.1.11. Planning and Development

- **Initial Setup:**
 - **Site Preparation:** Ensure site readiness, including structural integrity of mounting systems and electrical infrastructure.
 - **Installation:** Oversee the installation of PV modules, inverters, and other components according to manufacturer specifications and industry standards.
- **Long-term Development:**
 - **Expansion Plans:** Develop plans for future expansions or upgrades to increase capacity or incorporate new technologies.
 - **Technology Upgrades:** Stay updated with advancements in solar technology and integrate them as appropriate.

2.1.12. Technical Challenges and Mitigation

- **Dust and Debris:** Implement regular cleaning schedules and consider anti-soiling coatings.
- **Weather Conditions:** Design systems to withstand local weather conditions, including high temperatures and humidity.
- **Technical Issues:** Maintain a technical support team for rapid resolution of issues related to inverters, monitoring systems, and other critical components.

2.2. Financial Analysis

Project Financing Model

The solar PV project will be financed through **100% Equity**. The total capital expenditure (CapEx) is estimated at **PKR. 152,571,285**. This amount includes the expenses associated with the planning, design, material procurement, construction, and installation of the solar generation facilities.

Capital Cost Breakdown:

The total capital cost includes:

1. **Feasibility Studies:** Costs related to site assessments, technical and environmental evaluations.
2. **Planning and Design:** Costs for designing the solar PV system, electrical layouts, and structural requirements.
3. **Material Procurement:** Costs of solar panels, mounting structures, inverters, cabling, and other electrical components.

4. **Construction and Installation:** Labor, logistics, and installation costs of the rooftop solar system across the various sites.

Financial Summary:

- **Total Project Cost:** PKR. 152,571,285
- **Financing Structure:** 100% Equity (Applicant's own funds)

Sr. #	Location	System Size (kWp)	Total Project Cost (PKR)	TPC/Wp (PKR)	Equity 100%
1	Atlas Engineering Limited, Atlas Industrial Park, 15th Miles, National Highway, Landhi, Karachi.	950.625	152,571,285	160.495	152,571,285

3(f) *Feasibility Study



Feasibility Report
for
the Development of a 950.625 kWp
Solar Power Plant

Locations:

Atlas Engineering Limited,
Atlas Industrial Park, 15th Miles, National Highway, Landhi, Karachi.

Prepared by:

Atlas Energy Limited

1. Executive Summary

The feasibility study examines the costs, practicality, and likely outcome of a solar photovoltaic (PV) installation on the rooftop of below site:

Locations

Atlas Engineering Limited,

Atlas Industrial Park, 15th Miles, National Highway, Landhi, Karachi.

2. Project Brief

Atlas Energy intends to install 950.625 Solar Power Plants in owner premises to provide electricity under PEPA mode. The installed capacity of plants is proposed by critically analyzing the current load and future load projections of site.

The main outcomes of the feasibility report are given below:

- **Technical Site Analysis**
- **Financial Analysis**

2.1. Technical Site Analysis: The project site is suitable for a solar PV energy system. For the purpose of estimation of power generation potential, solar insolation is assumed to be "good". Panel azimuth (10° South East & 10° North West), panel tilt (8°) and satisfactory roof condition and structure are also assumed. Anticipated System Information: The projects in will accommodate 950.625 solar PV system with a projected annual production of **1,332,396 kWh/** year with use of a JKM585M-72HL4-TVPV panel.

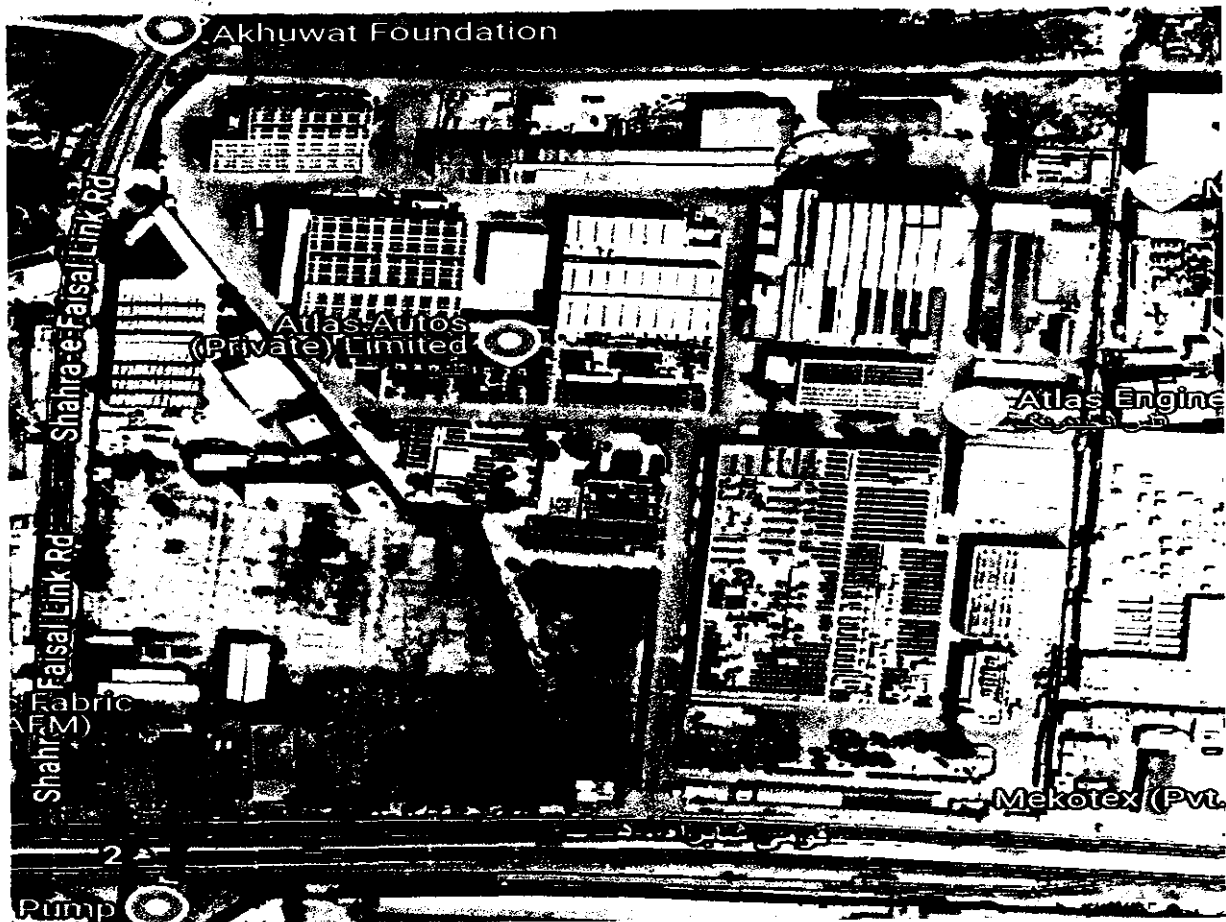
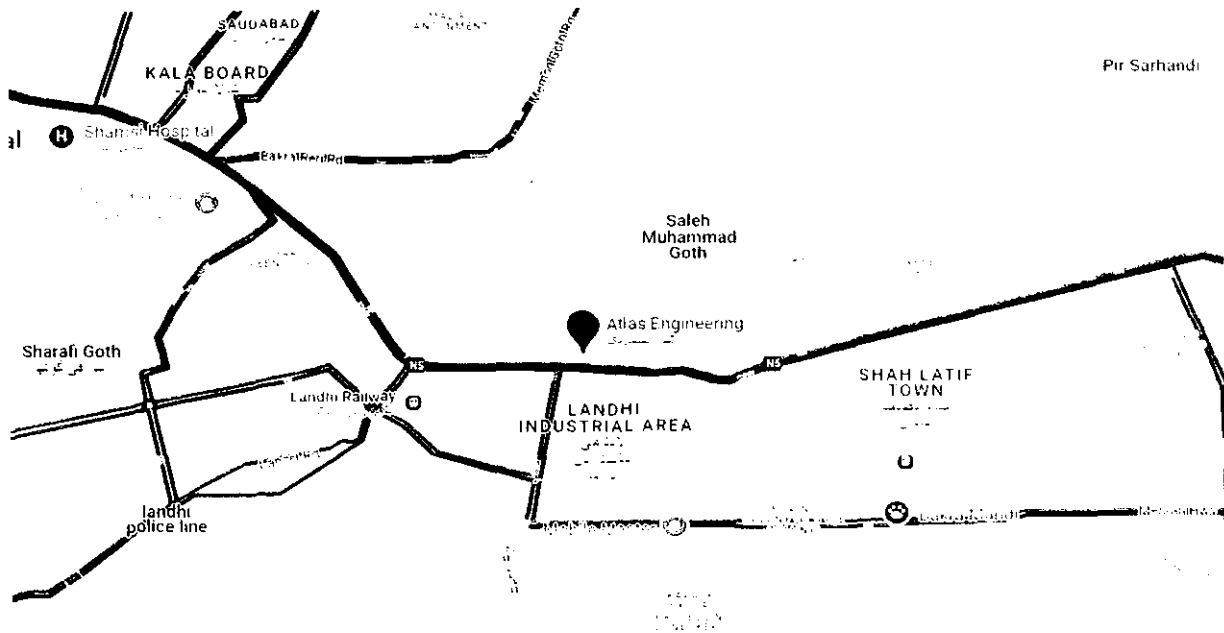
2.1.1. Site Coordinates & Location:

The project site is the rooftop and exact coordinates of the project site are as below:

Location	Coordinate
Location: Location: Atlas Engineering Atlas Industrial Park, 15th Miles, National Highway, Landhi, Karachi.	Latitude: 24°51'28.8"N Longitude: 67°13'53.4"E

2.1.2. Location Map:

A bird's eye view of the project site is given in the figure below:



Location: Atlas Engineering Limited
Atlas Industrial Park,
15th Miles, National Highway, Landhi, Karachi.

2.1.3. Site Conditions:

The following tasks were carried out:

- Global Horizontal Irradiation, annual and inter-annual variation was assessed.
- Near shading objects were taken into account for placement of PV modules.
- Area required for selected module technology was calculated. Keeping in view available area and minimum inter row shading, tilt angle and appropriate spacing was calculated from near shading objects.

Technology Review & Selection:

PV Modules	
Type of Module	JKM585M-72HL4-TV
No. Of Modules	1,625 (1,625 * 585) = 950.625 kWp
Type of Cell	Mono PERC Half-Cell
Dimension of each Module	2278×1134×35mm (89.53×44.65×1.38 inch)
Total Module Area	2.583,252 m ²
Frame of Panel	Anodized aluminium alloy
Weight of one Module	27.0 kg
No of Solar Cells in each module	144 (6×24)
Efficiency of module	22.65 %
Maximum Power (P _{max})	585 W _p
Voltage @ P _{max}	43.53 V
Current @ P _{max}	13.44 A
Open circuit voltage (V _{oc})	52.47V
Short circuit current (I _{sc})	14.07 A
Maximum system open Circuit Voltage	1500VDC (IEC)

Inverters

Description	Technical Specification	
Size & Mode	115 KW SUN2000-115KTL-M2	50 KW SUN2000-50KTL-M3
No. of Inverters	5	4
Input Operating Voltage Range	200 V to 1000 V	200 V to 1000 V
Efficiency of inverter	98.5 %	98.5 %
Max. Allowable Input voltage	1100V	1100V
Max. Current per MPPT	30 A	30 A
Max. Power Point Tracking Range	200 V to 1000 V	200 V to 1000 V
Output electrical system	3 Phase AC	3 Phase AC
Rated Output Voltage	3 / N / PE, 230 / 400 V	230 V / 400 V, 3W + N + PE
Power Factor (adjustable)	0.8 LG...0.8 LD	0.8 LG...0.8 LD
Power control	MPP Tracker	MPP Tracker
Rated Frequency	50 Hz	50 Hz

Mounting Structure

Structure	Aluminum Rail Type/ MS painted Parking shed
Tilt Angle	5°
Degradation Factor	First Year 2.5% & remaining 24 Years 0.6%

Data Collecting System

System Data	Continuous online logging with data logging software to portal.
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2.1.4. Solar PV Yield Estimation and Simulation of Site:

The energy yield prediction provides the basis for calculating project revenues. The aim is to predict the average annual energy output for the lifetime of the proposed power plant. To estimate accurately the energy produced from a PV power plant, information is needed on the solar resource and temperature conditions of the site. Also required are the layout and technical specifications of the plant components. A number of solar energy yield prediction software packages are available in the market. These packages use time step simulation to model the performance of a project over the course of a year. PVSyst software has been used for energy yield prediction for this site and its results are given below. Details of the simulation steps are presented in the following sections:

2.1.5. Working Conditions: Zero Grid Export

The solar system will have automatic mechanism to ensure that PV power currently generated by the inverters always matches the current power consumption of the site load. A closed loop control system of inverter AC output is implemented in reference to energy flow at grid connection point which will reduce inverter AC output of the inverter if site load will be less than the solar production.

2.1.6. Plant Characteristics

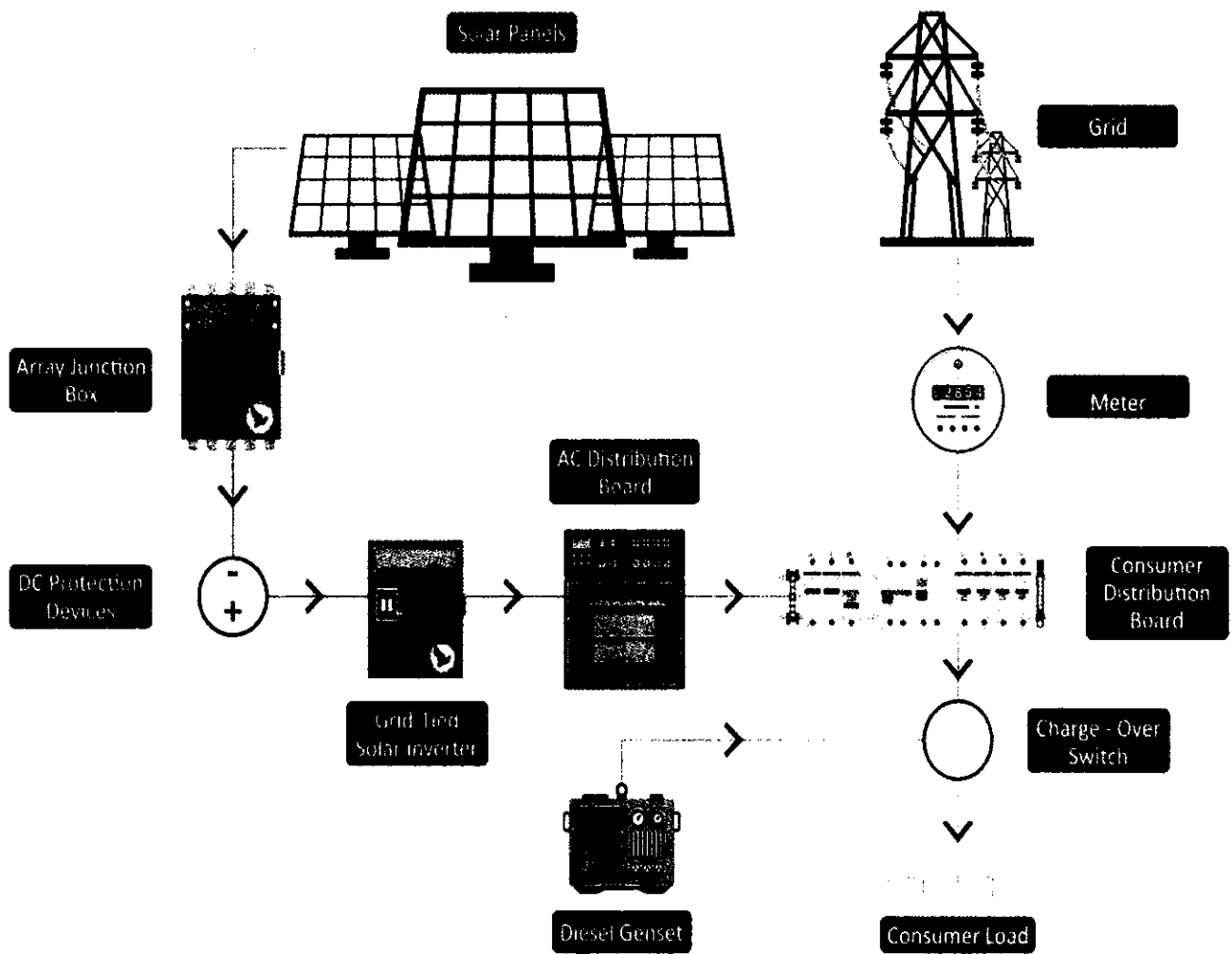
Generation Voltage: 230/400 V three phase four wire system Power Factor at rated power: 1 Frequency: 50 Hz Generation characteristic: Inverter has built-in features of controllable active power ramp following grid disturbance or normal connection, voltage regulation and frequency response. There are no additional control metering and instrumentations.

2.1.7. Design Parameters:

The following tasks were carried out for PV layout and shading.

- a) Assessment of shading (horizon and nearby building).
- b) Outline layout of area suitable for PV development.
- c) Designing row spacing to reduce inter-row shading and associated shading losses.
- d) Designing the layout to minimize cable runs and associated electrical losses.
- e) Creating access routes and sufficient space to allow movement for maintenance purposes.
- f) Choosing a tilt angle that optimizes the annual energy yield according to the latitude of the site and the annual distribution of solar resource.
- g) Module cleaning strategy.
- h) Simulating the annual energy losses associated with various configurations of tilt angle, orientation and row spacing. The optimized configuration and simulation results are given in section "Energy Yield Prediction"
- i) PV layouts of the site are given in view in the following section.

2.1.8. Concept Design:



2.1.9. Single Line Diagram:

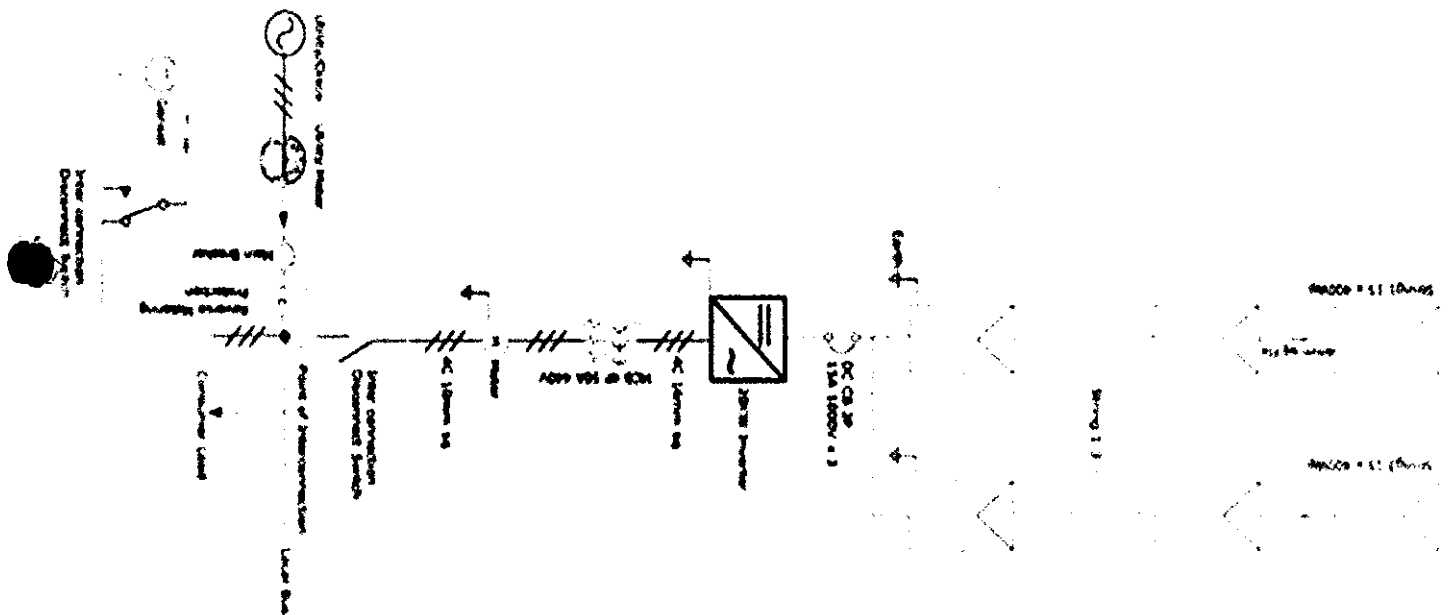
The electrical system comprises the following components:

- Array(s) of PV modules
- DC/AC cabling (module, string and main cable)
- DC connectors (plugs and sockets)
- Junction boxes and combiners
- Disconnects/switches
- Protection devices e.g. fuses, surge protective devices, breakers
- Energy Metering
- Earthing

The single line diagrams of DC and AC sides are given below. The single line diagram includes the protection devices that will be used for safe and smooth operation of the system.

Protections DC Side: 'String Fuses, Surge Protective Device and DC Disconnect Switches

Protections AC Side: MCBs, Main Breaker



2.2. Financial Analysis

Project Financing Model

The solar PV project will be financed through **100% Equity**. The total capital expenditure (CapEx) is estimated at **PKR 152,571,285**. This amount includes the expenses associated with the planning, design, material procurement, construction, and installation of the solar generation facilities.

Capital Cost Breakdown:

The total capital cost includes:

1. **Feasibility Studies:** Costs related to site assessments, technical and environmental evaluations.
2. **Planning and Design:** Costs for designing the solar PV system, electrical layouts, and structural requirements.
3. **Material Procurement:** Costs of solar panels, mounting structures, inverters, cabling, and other electrical components.
4. **Construction and Installation:** Labor, logistics, and installation costs of the rooftop solar system across the various sites.

Financial Summary:

- **Total Project Cost:** PKR 152,571,285
- **Financing Structure:** 100% Equity (Applicant's own funds)

Sr. #	Location	System Size (kWp)	Total Project Cost (PKR)	TPC/Wp (PKR)	Equity 100%
1	Atlas Engineering Limited, Atlas Industrial Park, 15th Miles, National Highway, Landhi, Karachi.	950.625	152,571,285	160.495	152,571,285

3. Project Rationale

It is a commonly knowledge that availability of electricity in any country that has direct effect on its economy and social factors and therefore, in order to measure the affluence of a society, the per capita energy consumption is used as index. An economy's production and consumption of electricity are basic indicators of its size and level of development. Although a few countries export electric power, most production is for domestic consumption. Expanding the supply of electricity to meet the growing demand of increasingly urbanized and industrialized economies without incurring unacceptable social, economic, and environmental costs is one of the great challenges facing developing countries.

Modern societies are becoming increasing dependent on reliable and secure electricity supplies to underpin economic growth and community prosperity. This reliance is set to grow as more efficient and less carbon intensive forms of power are developed and deployed to help decarbonize economies. Maintaining reliable and secure electricity services while seeking to rapidly decarbonize power systems is a key challenge for countries throughout the world. In developing economies growth in energy use is closely related to growth in the modern sectors - industry, motorized transport, and urban areas - but energy use also reflects climatic, geographic, and economic factors (such as the relative price of energy). Energy use has been growing rapidly in low- and middle-income economies, but high-income economies still use almost five times as much energy on a per capita basis. Governments in many countries are increasingly aware of the urgent need to make better use of the world's energy resources. Improved energy efficiency is often the most economic and readily available means of improving

energy security and reducing greenhouse gas emissions. Pakistan's per capita energy consumption of Pakistan Generation of electricity in Pakistan is largely on furnace oil whose substantial quantity is imported, prices whereof adversely affect the generation in the country. Although natural gas is a cheaper fuel however its reserves are depleting rapidly. In these circumstances, the use of solar power in Pakistan appears to be quite an attractive mode of generation of electric power. Further, its use does not require refining, transporting and conveying fuels and power over long distances. Moreover, solar power does not create pollution. Naturally, Pakistan is located in the Sunny Belt and can take advantage of its ideal situation for A utilization of solar energy. The country potential for solar generation is beyond doubt as it has high solar irradiation and enough space for installation of generation system those are ideal for PV and other solar energy applications. Villages and other areas which are away from grid or distribution system of utilities can also benefit from solar power generation which will also save the extra cost of laying the system and the losses. Solar energy, on the other hand, has excellent potential in areas of Pakistan that receive high levels of solar radiation throughout the year. Every day, for example, the country receives an average of about 19 Mega Joules per square meter of solar energy Pakistan being in the Sun Belt is ideally located to take advantage of solar energy technologies. This energy source is widely distributed and abundantly available in the country. The mean global irradiation falling on horizontal surface is about 200-250 watt per sq.m in a day. This amounts to about 2500- 3000 sun shine hours and 1.9 - 2.3 MWh per sq. meter in a year. It has an average daily global isolation of 19 to 20 MJ/sq. meter per day with annual mean sunshine duration of 8 to 8.5 hours (6-7hrs in cold and 10-12 hrs. in hot season) and these values are among the highest in the world. For daily global radiation up to 23MJ/m², 24 (80%) consecutive days are available in this area for solar energy. Such conditions are ideal for solar thermal applications.

Pakistan receives about 15.5x10¹⁴ kWh of solar irradiance each year with most regions receiving approximately 8 to 10 sunlight hours per day. The installed capacity of solar photovoltaic power is estimated to be 1600 GW per year, providing approximately 3.5 PWh of electricity (a figure approximately 41 times that of current power generation in the country). To summarize, the sun shines for 250-300 days per years in Pakistan with average sun shine hours of 8- 10 per day. This gives huge amount of energy to be used for electricity generation by solar photovoltaic and solar thermal power plants. A quick idea for the potential of solar energy in Pakistan can be obtained from the satellite map of solar radiation released by National Renewable Energy Lab (NREL) of USA.

4. Environment Assessment Report:

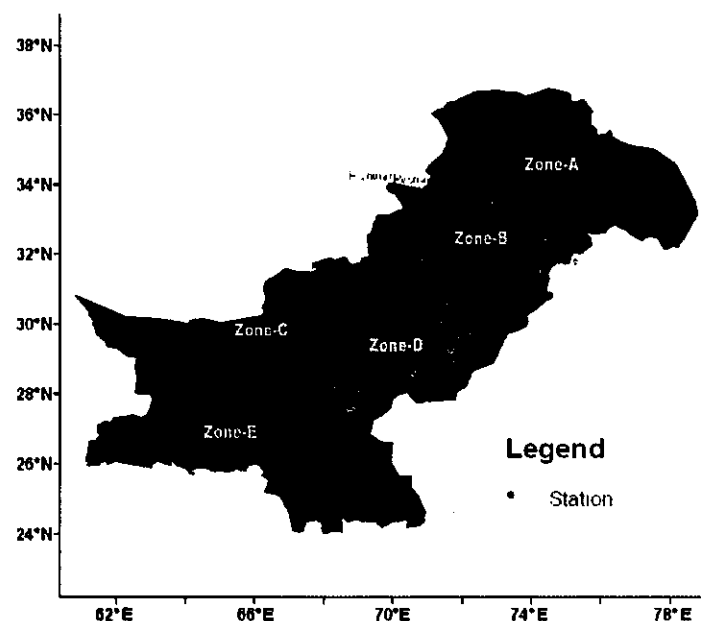
a. Study Area:

Pakistan is geographically situated approximately between 24-37 IV latitudes and 62-75 longitudes in the western zone of south Asia. The distribution of rainfall in Pakistan varies on wide ranges, mostly associated with the monsoon winds and the western disturbances, but the rainfall does not occur throughout the year. Like, Khyber Pukhtonkhuwa (northern mountains) and Balochistan provinces receive maximum rainfall in the months of December to March while in Punjab and Sindh receive 50-75% of rainfall during monsoon season (Kaziet al, 1951; FAO, 1987; Khan, 1993 & 2002; Kureshy, 1998; Luo and Lin, 1999). The precipitation received in the country can be divided into two main seasons, summer or monsoon and winter precipitation. The monsoon rainfall enters Pakistan from east and north east during the month of July to September. During this duration a good amount of rainfall is received in the north and northeastern areas of the country. Winter precipitation (December to March) are mainly received from western disturbances entering from Iran and Afghanistan. The weather systems entering from Afghanistan are called the primary western disturbances and cover only the north and north western parts of the country, whereas those approaching from the Iran are secondary and cover a large area of theCountry including Balochistan, Punjab, Khyber Pukhtonkhuwa, Kashmir and northern areas and sometimes Sindh province. A large amount of snowfall is received in the northern

areas, upper Khyber Pukhtonkhuwa, Kashmir and northern Balochistan and is the main source of water supply for water reservoirs of the country in dry season. This water received from the snow melt and from the seasonal rains plays an important role in the agricultural and socioeconomic activities of the country. Agriculture of Pakistan is mainly climate dependent, and every area has its own crops and fruits according to its climate. The country's most important crops and fruits are grown in winter season in different areas according to its climate conditions. If there is any abnormality in the usual climate condition the nation suffers for the whole year and there is also a huge loss to the economy.

b. Zone Classification:

Detection of rainfall trend is subject to limitations: there is no clear altitudinal trend of rainfall. Therefore, for analysis, a dataset spreads over a period of 30 years (1976-2005) covering the whole country i.e. 30 stations from extreme north to south and east to west have been selected. The stations included in this study were selected on the basis of their latitudinal position, elevation from sea level, length of record, completeness and reliability of data so that a synoptic view of the entire country could be obtained. Further the selected stations have been divided into five different microclimatic zones. These zones were named A, B, C, D and E as shown in Figure 1, along with their latitudinal extent.



Zone A

Zone A comprises those stations having cold climate and high mountains, situated in the north of Pakistan. These stations are Chitral, Gilgit, Muzaffarabad, Said-u- Sharif, Skardu, Astor, Dir, Chilas Parachinar and Kakul. These are mostly hill stations located between 34 N to 38 N in the Himalaya, Hindukash and Koh-e- Sufaid mountain ranges.

Zone B

This zone has mild cold climate and Sub Mountains, located between 31N to 34 N. The stations are Sialkot, D.I.Khan, Islamabad, Peshawar, Cherat and Lahore.

Zone C

Climate is cold in winters and hot in summers. Most of them are mountainous stations with high elevations from mean sea level and cover an area between 27 N to 32N and 64 E to 70 E. Stations included in this zone are Quetta, Zhob, Kalat and Khuzdar.

Zone D

This is the hottest and dry zone of the country where highest maximum temperatures are recorded in stations of Sibbi and Jacobabad. The area is almost plain with some area included in Thar Desert. Stations included are Sibbi, Jacobabad, Bahawalpure, Khanpur, Multan and Rohri.

Zone E

Zone E is a big zone having many stations and coastal cities, near to Arabian Sea. The coastal Part comprises only a small part of this region and climate above coastal parts in Balochistan as well as in Sindh province is mostly arid to hyper arid. The selected stations from this zone are Hyderabad, Karachi, Nawabshah and Jewani.

c. Existing Environmental Conditions:

a) Physical Environment

- **Climate:** Karachi experiences a hot desert climate with high temperatures and low rainfall, making it suitable for solar energy generation.
- **Topography:** The project site is relatively flat, with no significant natural features that would impact the installation.
- **Soil:** The soil composition is mostly sandy, with moderate load-bearing capacity, suitable for installing mounting structures.

b) Biological Environment

- **Flora and Fauna:** The project site is within an industrial area with minimal vegetation and wildlife. There are no protected species or significant habitats within the vicinity.
- **Air Quality:** The air quality in the area is typical for an industrial zone, with occasional dust and emissions from nearby factories.
- **Noise Levels:** The noise levels are consistent with industrial activities, with no significant noise pollution expected from the solar plant.

c) Socio-Economic Environment

- **Local Community:** The surrounding area is primarily industrial, with no residential communities in close proximity to the project site.
- **Economic Activity:** The installation of the solar plant is expected to create temporary employment opportunities during the construction phase.

The sites are allocated in private land (Roof Top) within the premises of Customer, and the applicant has carried out a detailed environment assessment of the sites in preparation of the Solar PV Plant.

The assessment of the Project has been considered for both positive and negative effects. The proposed photovoltaic Power Project has been located as per international guidelines. Adoption of green power generation with no emission and effluent discharge with have least impact on the

ambient environment and on the host community. However, in the long term the project and related activities in areas may bring about slight change in ambient air quality of area.

The importance of the sustainable development concept has increased in the whole world. As a result, some new regulations enforce that all development projects should be compatible with the environmental criterions. An environmental impact assessment should be carried out to make sure that projects are compatible with the environmental criterions. Environmental Impact Assessment (EIA) can be defined as a process of environmental management, planning, and decision-making with a purpose of keeping and improving the quality of the environment.

The main goal is to develop environmentally friendly industrialization. With this kind of environmentally friendly industrialization, "sustainable development" can be a possibility in the future by keeping the usage/protection balance between economic development and the environmental protection.

Every energy generation and transmission method affects the environment. Conventional generating options can damage air, climate, water, land & wildlife, landscape as well as raise the levels of harmful radiation. PV technology is substantially safer offering a solution to many environmental and social problems associated with fossil and nuclear fuels. Solar PV energy technology provides obvious environmental advantages in comparison to the conventional energy sources thus contributing to the sustainable development of human activities. Not counting the depletion of the exhausted natural resources, their main advantage is related to the reduced CO₂ emissions and normally absence of any air emissions or waste products during their operations.

The use of solar power has additional positive implications such as:

- Reduction of the emissions of the greenhouse gases (mainly CO₂, NO_x) and prevention of toxic gas emissions (SO₂, particulates)
- Reduction of the required transmission lines of the electricity grids.

5. Project Environmental Impacts & Mitigation Measures:

This Section discusses the potential environmental impacts, assesses the significance, recommends mitigation measure to minimize the adverse effect and identifies the residual impacts associated with the proposed activities of the project during the construction and operation phase of the proposed project at the proposed site and of secondary actions like potable, raw water and wastewater lines. Solar energy is a lot cleaner when compared with conventional energy sources. Solar energy systems have many significant advantages, like being cheaper and not producing any pollutants during operation and being almost an infinite energy source when compared with fossil fuels. Nevertheless, solar energy systems have some certain negative impacts on the environment just like any other energy system. Some of these impacts will be summarized in this section.

Identification of Potential Impacts:

- a) Discharge of Pollutants
- b) Visual Impacts
- c) Impact on Natural Resources
- d) Air Pollution
- e) Noise Intrusion

- f) Impact on Air
- g) Impact on Ground Water/ Surface Water
- h) Impact on Solid Waste
- i) Impact on Soil
- j) Impact on Natural Resources

Discharge of Pollutants: Solar cells do not emit any pollutants during their operations. But solar cell modules contain some toxic substances, and there is a potential risk of releasing these chemicals to the environment during a fire. Necessary precautions should be taken for emergency situations like fire. The possibility of an accidental release of the chemicals of the solar cell modules to soil and groundwater poses a great threat for the environment.

Visual Impacts: There will be some visual impacts depending on the type of scheme and the surroundings of the solar cells. Especially for applications on buildings, solar cells can be used as a cladding material that could be integrated into the building during the construction phase. Solar cell applications after the construction phase of the buildings might cause negative visual impacts. Solar cell utilization should be planned at the architectural phase and fitted to the building to minimize visual pollution. For the other application areas, proper sitting and design are important factors, especially for large solar cell applications. Another important factor about the control of the visual impacts is the use of color. Enough care should be taken for the usage of proper colors while assembling the solar cell modules.

Impacts on Natural Resources: Despite being a benign energy system during operation, solar cells have some negative impacts on the environment during their production phase like many other systems. The energy needed for the production of solar energy systems is still produced in conventional methods today. Some toxic chemical substances used during the production phase are produced as a by-product. Especially, the solar cell batteries pose a threat on natural resources by having a short lifespan and containing heavy metals such as cadmium.

Air Pollution: Solar cells do not emit any substances to the air during operation. But there could be some emissions during manufacturing and transport. The emissions associated with the transport of the modules are insignificant when compared with the emissions associated with the manufacture. Transport emissions are 0.1-1% of the manufacturing emissions.

Noise: Intrusion Solar cells do not make a noise during operation. But during the construction phase, there will be a little noise as usual in other construction activities.

Impact on Air: There would be no hazardous emissions at site as well as during construction phase except Motor Vehicle and Crane. Moreover, there are no objectionable odors as well as alternation of air temperature.

Impact on Ground Water/ Surface Water: There would be no use of water during design phase except curing of civil pads during construction, which have no negative impact on environment.

Impact on Solid Waste: It may only Create litter and trash waste which is recyclable and may be cleared from site after construction.

Impact on Soil: No impacts as all installed systems are roof top.

Impact on Natural Resources: There won't be any increase in the rate of usage of any natural resource like any minerals, additional fuel other than vehicles. But there would be increase in the amount of usage of Paper for mapping, enlisting items etc. However, paper may be recycling by throwing it in ordinary dustbin, further ensure the maximum usage of electronic system e.g. emails.

6. Environment Assessment/ Conclusion:

The site allocated is private land within the premises of Atlas Engineering Limited (Plant) and the applicant has carried out a detailed environment assessment of the site for installation of solar PV Plant. Overall findings:

Environment Parameters	Level of Impact	Reasons	Mitigation Measures
Air Impact	Low	Solar Energy is Carbon Free	(No Emissions)
Water	Low	Plant will require a very low quantity of water for cleaning of PV Modules	RO Plant is already installed at site and water from said source may be used for cleaning of PV Modules
Land	Low	No impact on Land	As said project is purely roof based which have no impact on Land
Ecosystem	Low	No ecologically sensitive area lies with in premises	There is no significant vegetation cover within the selected area
Socio Eco System	Low	Total area identified for said project is in plant premises and no acquisition is needed	Not Applicable

7. Safety plans, emergency plans

- Only qualified and authorized electricians will be allowed to undertake servicing or maintenance tasks.
- The authorized personnel will wear appropriate equipment, including a safety harness to restrain from falling off the roof, sturdy shoes that will have thick rubber soles to provide electrical insulation and good grip and appropriate clothing for personal protection, including a hat, sunglasses, gloves and long pants and sleeves.
- Lock out and tag out procedures will be used before commencement of maintenance tasks.

- On-going operation and maintenance concerns for solar power systems will be addressed properly. These systems are exposed to outdoor weather conditions that enhance the aging process, and the infrastructure needs to be in place for the on-going maintenance of these systems to assure their safe operation.
- Properly grounded or double insulated power tools will be used for maintenance tasks.
- Tools will be maintained in good condition.
- Working on electrical equipment and circuits will be carried out in de-energized state.
- Proper pathways will be available for operation, maintenance and firefighting.
- Fire protection and suppression will be placed at site.



ENVIROMENT IMPACT ASSEMENT STUDY



1. Introduction:

Extensive fossil fuel consumption in almost all human activities has led to some undesirable phenomena such as atmospheric and environmental pollution, which have not been experienced before in known human history. Consequently, global warming, green house affect, climate change, ozone layer depletion, and acid rain terminologies started to appear in the literature frequently. Since 1970, it has been understood scientifically by experiments and research that these phenomena are closely related to fossil fuel uses because they emit greenhouse gases such as carbon dioxide (CO₂) and methane (CH₄), which hinder the long-wave terrestrial radiation escape into space, and, consequently, the earth troposphere becomes warmer. In order to avoid further impacts of these phenomena, the two concentrative alternatives are either to improve the fossil fuel quality with reductions in their harmful emissions into the atmosphere or, more significantly, to replace fossil fuel usage as much as possible with environmentally friendly, clean, and renewable energy sources. Among these sources, solar energy comes at the top of the list due to its abundance and more even distribution in nature than any other renewable energy type, such as wind, geothermal, hydro, wave, and tidal energies. Solar energy technologies are essential components of a sustainable energy future. Energy from fossil fuels may be inexpensive and assurances may have been given of the plentiful supplies of petroleum and other fossil fuels, but these fuels are finite in nature and a major source of greenhouse gas emissions.

1.1. Project Overview

Atlas Energy Limited proposes the installation of a solar power plant at the Atlas Engineering Limited site in Karachi. The project aims to reduce carbon footprint and energy costs by transitioning to renewable energy sources, aligning with the company's sustainability goals.

1.2. Purpose of the EIA

The Environmental Impact Assessment (EIA) report is prepared to assess the potential environmental impacts associated with the solar plant installation. This report will identify, evaluate, and propose mitigation measures to address the environmental effects of the project, ensuring compliance with local regulations and sustainable development principles.

1.3. Project Location

The proposed site for the solar plant is within the premises of Atlas Engineering Limited, located at **Atlas Industrial Park, 15th Miles, National Highway, Landhi, Karachi.** The site is situated in an industrial area with existing infrastructure suitable for the installation, including rooftops and open spaces that can accommodate solar panels.

1.4. Objectives

- **Energy Efficiency:** Reduce reliance on grid electricity and diesel generators, lowering operational costs.
- **Environmental Impact:** Decrease greenhouse gas emissions and minimize the carbon footprint of Atlas Engineering Limited.
- **Sustainability:** Promote the use of renewable energy and contribute to the company's sustainability targets.

2. Rationale:

It is a commonly knowledge that availability of electricity in any country that has direct effect on its economy and social factors and therefore, in order to measure the affluence of a society, the per capita energy consumption is used as index. An economy's production and consumption of electricity are basic

indicators of its size and level of development. Although a few countries export electric power, most production is for domestic consumption. Expanding the supply of electricity to meet the growing demand of increasingly urbanized and industrialized economies without incurring unacceptable social, economic, and environmental costs is one of the great challenges facing developing countries.

Modern societies are becoming increasingly dependent on reliable and secure electricity supplies to underpin economic growth and community prosperity. This reliance is set to grow as more efficient and less carbon intensive forms of power are developed and deployed to help decarbonize economies. Maintaining reliable and secure electricity services while seeking to rapidly decarbonize power systems is a key challenge for countries throughout the world. In developing economies growth in energy use is closely related to growth in the modern sectors - industry, motorized transport, and urban areas - but energy use also reflects climatic, geographic, and economic factors (such as the relative price of energy). Energy use has been growing rapidly in low- and middle-income economies, but high-income economies still use almost five times as much energy on a per capita basis. Governments in many countries are increasingly aware of the urgent need to make better use of the world's energy resources. Improved energy efficiency is often the most economic and readily available means of improving energy security and reducing greenhouse gas emissions. Pakistan's per capita energy consumption of Pakistan Generation of electricity in Pakistan is largely on furnace oil whose substantial quantity is imported, prices whereof adversely affect the generation in the country. Although natural gas is a cheaper fuel however its reserves are depleting rapidly. In these circumstances, the use of solar power in Pakistan appears to be quite an attractive mode of generation of electric power. Further, its use does not require refining, transporting and conveying fuels and power over long distances. Moreover, solar power does not create pollution. Naturally, Pakistan is located in the Sunny Belt and can take advantage of its ideal situation for A utilization of solar energy. The country potential for solar generation is beyond doubt as it has high solar irradiation and enough space for installation of generation system those are ideal for PV and other solar energy applications. Villages and other areas which are away from grid or distribution system of utilities can also benefit from solar power generation which will also save the extra cost of laying the system and the losses. Solar energy, on the other hand, has excellent potential in areas of Pakistan that receive high levels of solar radiation throughout the year. Every day, for example, the country receives an average of about 19 Mega Joules per square meter of solar energy Pakistan being in the Sun Belt is ideally located to take advantage of solar energy technologies. This energy source is widely distributed and abundantly available in the country. The mean global irradiation falling on horizontal surface is about 200-250 watt per sq.m in a day. This amounts to about 2500- 3000 sun shine hours and 1.9 - 2.3 MWh per sq. meter in a year. It has an average daily global isolation of 19 to 20 MJ/sq. meter per day with annual mean sunshine duration of 8 to 8.5 hours (6-7hrs in cold and 10-12 hrs. in hot season) and these values are among the highest in the world. For daily global radiation up to 23MJ/m², 24 (80%) consecutive days are available in this area for solar energy. Such conditions are ideal for solar thermal applications.

Pakistan receives about 15.5×10^{14} kWh of solar irradiance each year with most regions receiving approximately 8 to 10 sunlight hours per day. The installed capacity of solar photovoltaic power is estimated to be 1600 GW per year, providing approximately 3.5 PWh of electricity (a figure approximately 41 times that of current power generation in the country). To summarize, the sun shines for 250-300 days per years in Pakistan with average sun shine hours of 8- 10 per day. This gives huge amount of energy to be used for electricity generation by solar photovoltaic and solar thermal power plants. A quick idea for the potential of solar energy in Pakistan can be obtained from the satellite map of solar radiation released by National Renewable Energy Lab (NREL) of USA.

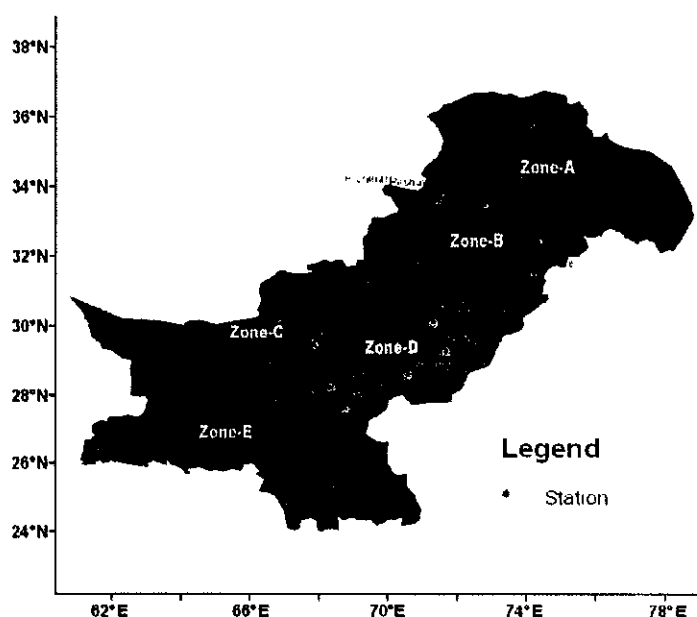
3. Environment Assessment Report:

3.1. Study Area:

Pakistan is geographically situated approximately between 24-37°N latitudes and 62-75°E longitudes in the western zone of south Asia. The distribution of rainfall in Pakistan varies on wide ranges, mostly associated with the monsoon winds and the western disturbances, but the rainfall does not occur throughout the year. Like, Khyber Pukhtonkhuwa (northern mountains) and Balochistan provinces receive maximum rainfall in the months of December to March while in Punjab and Sindh receive 50-75% of rainfall during monsoon season (Kaziet al, 1951; FAO, 1987; Khan, 1993 & 2002; Kureshy, 1998; Luo and Lin, 1999). The precipitation received in the country can be divided into two main seasons, summer or monsoon and winter precipitation. The monsoon rainfall enters Pakistan from east and northeast during the month of July to September. During this duration a good amount of rainfall is received in the north and northeastern areas of the country. Winter precipitation (December to March) is mainly received from western disturbances entering from Iran and Afghanistan. The weather systems entering from Afghanistan are called the primary western disturbances and cover only the north and northwestern parts of the country, whereas those approaching from the Iran are secondary and cover a large area of the country including Balochistan, Punjab, Khyber Pukhtonkhuwa, Kashmir and northern areas and sometimes Sindh province. A large amount of snowfall is received in the northern areas, upper Khyber Pukhtonkhuwa, Kashmir and northern Balochistan and is the main source of water supply for water reservoirs of the country in dry season. This water received from the snow melt and from the seasonal rains plays an important role in the agricultural and socioeconomic activities of the country. Agriculture of Pakistan is mainly climate dependent and every area has its own crops and fruits according to its climate. The country's most important crops and fruits are grown in winter season in different areas according to its climate conditions. If there is any abnormality in the usual climate condition the nation suffers for the whole year and there is also a huge loss to the economy.

3.2. Zone Classification:

Detection of rainfall trend is subject to limitations: there is no clear altitudinal trend of rainfall. Therefore, for analysis, a dataset spreads over a period of 30 years (1976-2005) covering the whole country i.e. 30 stations from extreme north to south and east to west have been selected. The stations included in this study were selected on the basis of their latitudinal position, elevation from sea level, length of record, completeness and reliability of data so that a synoptic view of the entire country could be obtained. Further the selected stations have been divided into five different microclimatic zones. These zones were named A, B, C, D and E as shown in Figure 1, along with their latitudinal extent.



Zone A

Zone A comprises those stations having cold climate and high mountains, situated in the north of Pakistan. These stations are Chitral, Gilgit, Muzaffarabad, Said-u- Sharif, Skardu, Astor, Dir, Chilas Parachinar and Kakul. These are mostly hill stations located between 34 N to 38 N in the Himalaya, Hindukash and Koh-e- Sufaid mountain ranges.

Zone B

This zone has mild cold climate and Sub Mountains, located between 31N to 34 N. The stations are Sialkot, D.I.Khan, Islamabad, Peshawar, Cherat and Lahore.

Zone C

Climate is cold in winters and hot in summers. Most of them are mountainous stations with high elevations from mean sea level and cover an area between 27 N to 32N and 64 E to 70 E. Stations included in this zone are Quetta, Zhob, Kalat and Khuzdar.

Zone D

This is the hottest and dry zone of the country where highest maximum temperatures are recorded in stations of Sibbi and Jacobabad. The area is almost plain with some area included in Thar Desert. Stations included are Sibbi, Jacobabad, Bahawalpure, Khanpur, Multan and Rohri.

Zone E

Zone E is a big zone having many stations and coastal cities, near to Arabian Sea. The coastal Part comprises only a small part of this region and climate above coastal parts in Balochistan as well as in Sindh province is mostly arid to hyper arid. The selected stations from this zone are Hyderabad, Karachi, Nawabshah and Jewani.

3.3. Existing Environmental Conditions:

d) Physical Environment

- **Climate:** Karachi experiences a hot desert climate with high temperatures and low rainfall, making it suitable for solar energy generation.
- **Topography:** The project site is relatively flat, with no significant natural features that would impact the installation.
- **Soil:** The soil composition is mostly sandy, with moderate load-bearing capacity, suitable for installing mounting structures.

e) Biological Environment

- **Flora and Fauna:** The project site is within an industrial area with minimal vegetation and wildlife. There are no protected species or significant habitats within the vicinity.
- **Air Quality:** The air quality in the area is typical for an industrial zone, with occasional dust and emissions from nearby factories.
- **Noise Levels:** The noise levels are consistent with industrial activities, with no significant noise pollution expected from the solar plant.

f) Socio-Economic Environment

- **Local Community:** The surrounding area is primarily industrial, with no residential communities in close proximity to the project site.
- **Economic Activity:** The installation of the solar plant is expected to create temporary employment opportunities during the construction phase.

The sites are allocated in private land (Roof Top) within the premises of Customer, and the applicant has carried out a detailed environment assessment of the sites in preparation of the Solar PV Plant.

The assessment of the Project has been considered for both positive and negative effects. The proposed photovoltaic Power Project has been located as per international guidelines. Adoption of green power generation with no emission and effluent discharge will have least impact on the ambient environment and on the host community. However, in the long term the project and related activities in areas may bring about slight change in ambient air quality of area.

The importance of the sustainable development concept has increased in the whole world. As a result, some new regulations enforce that all development projects should be compatible with the environmental criterions. An environmental impact assessment should be carried out to make sure that projects are compatible with the environmental criterions. Environmental Impact Assessment (EIA) can be defined as a process of environmental management, planning, and decision-making with a purpose of keeping and improving the quality of the environment.

The main goal is to develop environmentally friendly industrialization. With this kind of environmentally friendly industrialization, "sustainable development" can be a possibility in the future by keeping the usage/protection balance between economic development and environmental protection.

Every energy generation and transmission method affects the environment. Conventional generating options can damage air, climate, water, land & wildlife, landscape as well as raise the levels of harmful radiation. PV technology is substantially safer offering a solution to many environmental and social problems associated with fossil and nuclear fuels. Solar PV energy technology provides obvious environmental advantages in comparison to the conventional energy sources thus contributing to the sustainable development of human activities. Not counting the depletion of the exhausted natural resources, their main advantage is related to the reduced CO₂ emissions and normal absence of any air emissions or waste products during their operations.

The use of solar power has additional positive implications such as:

- Reduction of the emissions of the greenhouse gases (mainly CO₂, NO_x) and prevention of toxic gas emissions (SO₂, particulates)
- Reduction of the required transmission lines of the electricity grids.

4. Project Environmental Impacts & Mitigation Measures:

This Section discusses the potential environmental impacts, assesses the significance, recommends mitigation measure to minimize the adverse effect and identifies the residual impacts associated with the proposed activities of the project during the construction and operation phase of the proposed project at the proposed site and of secondary actions like potable, raw water and wastewater lines. Solar energy is a lot cleaner when compared with conventional energy sources. Solar energy systems have many significant advantages, like being cheaper and not producing any pollutants during operation and being almost an infinite energy source when compared with fossil fuels. Nevertheless, solar energy systems have some certain negative impacts on the environment just like any other energy system. Some of these impacts will be summarized in this section.

Identification of Potential Impacts:

- a) Discharge of Pollutants
- b) Visual Impacts

- c) Impact on Natural Resources
- d) Air Pollution
- e) Noise Intrusion
- f) Impact on Air
- g) Impact on Ground Water/ Surface Water
- h) Impact on Solid Waste
- i) Impact on Soil
- j) Impact on Natural Resources

Discharge of Pollutants: Solar cells do not emit any pollutants during their operations. But solar cell modules contain some toxic substances, and there is a potential risk of releasing these chemicals to the environment during a fire. Necessary precautions should be taken for emergency situations like fire. The possibility of an accidental release of the chemicals of the solar cell modules to soil and groundwater poses a great threat for the environment.

Visual Impacts: There will be some visual impacts depending on the type of scheme and the surroundings of the solar cells. Especially for applications on buildings, solar cells can be used as a cladding material that could be integrated into the building during the construction phase. Solar cell applications after the construction phase of the buildings might cause negative visual impacts. Solar cell utilization should be planned at the architectural phase and fitted to the building to minimize visual pollution. For the other application areas, proper sitting and design are important factors, especially for large solar cell applications. Another important factor about the control of the visual impacts is the use of color. Enough care should be taken for the usage of proper colors while assembling the solar cell modules.

Impacts on Natural Resources: Despite being a benign energy system during operation, solar cells have some negative impacts on the environment during their production phase like many other systems. The energy needed for the production of solar energy systems is still produced in conventional methods today. Some toxic chemical substances used during the production phase are produced as a by-product. Especially, the solar cell batteries pose a threat on natural resources by having a short lifespan and containing heavy metals such as cadmium.

Air Pollution: Solar cells do not emit any substances to the air during operation. But there could be some emissions during manufacturing and transport. The emissions associated with the transport of the modules are insignificant when compared with the emissions associated with the manufacture. Transport emissions are 0.1-1% of the manufacturing emissions.

Noise: Intrusion Solar cells do not make a noise during operation. But during the construction phase, there will be a little noise as usual in other construction activities.

Impact on Air: There would be no hazardous emissions at site as well as during construction phase except Motor Vehicle and Crane. Moreover, there are no objectionable odors as well as alternation of air temperature.

Impact on Ground Water/ Surface Water: There would be no use of water during design phase except curing of civil pads during construction, which have no negative impact on environment.

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5. Environment Assessment/ Conclusion:

The site allocated is private land within the premises of Atlas Engineering Limited (Plant) and the applicant has carried out a detailed environment assessment of the site for installation of solar PV Plant. Overall findings:

Environment Parameters	Level of Impact	Reasons	Mitigation Measures
Air Impact	Low	Solar Energy is Carbon Free	(No Emissions)
Water	Low	Plant will require a very low quantity of water for cleaning of PV Modules	RO Plant is already installed at site and water from said source may be used for cleaning of PV Modules
Land	Low	No impact on Land	As said project is purely roof based which have no impact on Land
Ecosystem	Low	No ecologically sensitive area lies with in premises	There is no significant vegetation cover within the selected area
Socio Eco System	Low	Total area identified for said project is in plant premises and no acquisition is needed	Not Applicable

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- The authorized personnel will wear appropriate equipment, including a safety harness to restrain from falling off the roof, sturdy shoes that will have thick rubber soles to provide electrical insulation and good grip and appropriate clothing for personal protection, including a hat, sunglasses, gloves and long pants and sleeves.
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- Tools will be maintained in good condition.
- Working on electrical equipment and circuits will be carried out in de-energized state.
- Proper pathways will be available for operation, maintenance and firefighting.
- Fire protection and suppression will be placed at site.

**3(g) * an affidavit stating whether the applicant has been granted
any other license under the Act;**

3(h) * a duly authorised statement stating whether the applicant has been refused grant of license under the Act and, if so, the particulars of the refused application, including date of making the application and decision on the application;

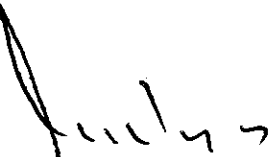
September 13, 2024

Registrar

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

Confirmation Statement

I, **Maqsood Ahmad, Chief Executive Officer** and the duly authorized representative of Atlas Energy Limited, hereby confirm that Atlas Energy Limited has never been refused or denied a license by the National Electric Power Regulatory Authority (NEPRA) under the Regulation of Generation, Transmission, and Distribution of Electric Power Act, 1997 (NEPRA Act, 1997).


Maqsood Ahmad
Chief Executive Officer
Atlas Energy Limited



Atlas Energy Limited

Registered Office: 64-XX, Khayaban-e-Iqbal, Phase-III, DHA, Lahore.
Ph: (92-42) 37132636-39, (92-42) 37132644 **Fax:** (92-42) 37132641

3(6) * Authorization from Board Resolution / Power of Attorney

**Certified True Copy of resolutions passed by the Board of Directors through
circulation on 4 February 2019**

Resolved:

"That Mr. Maqsood Ahmed, Chief Executive Officer of the Company, be and is hereby authorised to file; (i) an application for grant of Generation License; (ii) any other clarification, submission, application, petition or document in support thereof; (iii) to make any oral or written representations on behalf of the Company before the National Electric Power Regulatory Authority and any other body, organization, department judicial and quasi-judicial body in relation to the aforesaid filings and to do all other acts deeds, things and matters as may be deemed expedient in giving effect to the aforesaid resolution."

Further Resolved:

that Mr. Maqsood Ahmed, Chief Executive Officer of the Company may further delegate the aforesaid powers, in writing, to one or more persons, as deemed expedient from time to time."

Further Resolved:

"that these resolutions duly certified by one of the Directors of the Company or the Company Secretary be communicated to the concerned parties which shall constitute the Company's mandate to the concerned parties and shall remain in force until revoked/changed by notice in writing to the concerned parties."

CERTIFIED TRUE COPY



Khalid Mahmood
Company Secretary



Atlas Energy Limited

Registered Office: Building No. 64/XX, Khayaban-e-Iqbal, DHA Phase III, Lahore.
Ph.: (92-42) 37132637-38, **Fax:** (92-42) 37332812

3(7) * An affidavit as to the correctness, authenticity and accuracy of the application,

E-STAMP



E-Stamp ID: **PB-LHR-BB79532CFDA13E22**
Payment Reference No.: **0676-27754212**

Stamp Type: **Low Denomination**
Amount: **Rs 300/-**

Description : AFFIDAVIT - 4
Applicant : Maqsood Ahmad [35202-2632390-1]
Representative From : Atlas Energy Limited
Agent : Maqsood Ahmad [35202-2632390-1]
Address : 64 Block XX Khayaban e Iqbal DHA Phase III Lahore
Issue Date : 12-Sep-2024, 12:35:44 PM
Delisted On/Validity : 19-Sep-2024
Paid Through Challan : 202471A08ECF1DE3
Amount in Words : Three Hundred Rupees Only
Reason : Affidavit to NEPRA for Generation License Application of 950.625 kWp for Conformance


AFFIDAVIT

نوٹ: یہ ٹرانزیکشن تاریخ اجراء سے سات دنوں تک کے لیے قابل استعمال ہے۔ اسی اسٹامپ کی تصدیق بذریعہ ویب سائٹ، کیو آر کوڈ یا ایس ایم ایس سے کی جاسکتی ہے۔

Type "eStamp <16 digit eStamp Number>" send to 8100

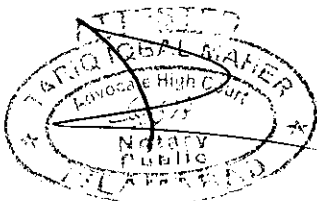
I, **Maqsood Ahmad** S/o **Ch. Muhammad Sadiq**, holding CNIC No. 35202-2632390-1, Chief Executive Officer Atlas Energy Limited, being the duly authorized representative of Atlas Energy Limited, hereby confirm that the Applicant has been earlier granted undermentioned licenses by the authority.

Sr. No.	Generation License No.	Issued To	Gross Capacity	Plant Type
1.	SGC/165/2022	Atlas Energy Ltd.	4.928 MW	Solar Power Plant
2.	SGC/145/2020		858.80 kW	
3.	SGC/146/2020		608.00 kW	
4.	SGC/147/2020		501.60 kW	
5.	SGC/148/2020		638.40 kW	
6.	SGC/149/2020		995.60 kW	

Maqsood A. Basraa
Chief Executive Officer

Dated: 13/09/2024



E-STAMP



E-Stamp ID: **PB-LHR-BE448136A0A510C9**
Payment Reference No.: **0676-27754262**



Stamp Type: **Low Denomination**
Amount: **Rs 300/-**

Description : AFFIDAVIT - 4
Applicant : Maqsood Ahmad [35202-2632390-1]
Representative From : Atlas Energy Limited
Agent : Maqsood Ahmad [35202-2632390-1]
Address : 64 Block XX Khayaban e Iqbal DHA Phase III Lahore
Issue Date : 12-Sep-2024, 12:36:12 PM
Delisted On/Validity : 19-Sep-2024
Paid Through Challan : 2024FC8A09DF731F
Amount in Words : Three Hundred Rupees Only
Reason : Affidavit to NEPRA for Generation License Application of 950.625 kWp for Correctness of Information

نوٹ: یہ ٹرانزیکشن تاریخ اجرا سے سات دنوں تک کے لیے قابل استعمال ہے۔ ای اسٹامپ کی تصدیق بذریعہ ویب سائٹ، کیو آر کوڈ یا ایس ایم ایس سے کی جاسکتی ہے۔
Type "eStamp <16 digit eStamp Number>" send to 8100


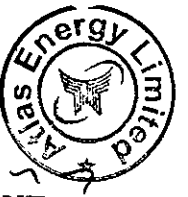
Affidavit

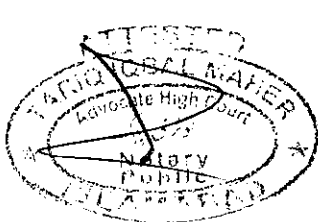
I **Maqsood Ahmad** S/o **Ch. Muhammad Sadiq**, holding CNIC No. **35202-2632390-1**, Chief Executive Officer of Atlas Energy Limited, the duly authorized representative of the Applicant Company Solemnly Affirms and declare that the content of the accompanying application for grant of generation license is true and correct to the best of my knowledge and belief and no material has been, concealed there form.



DEPONENT

Verification:

This Affidavit is verified on this **September 13, 2024**, at **Lahore** that the Contents of the affidavit are and correct to the best of my knowledge and belief and that nothing, material and relevant, has been kept concealed therein.



DEPONENT



22 OCT 2024



**3(4)(a) applicable documents-in-support and information
set out in Schedule III of these regulations**

1. Interconnection study

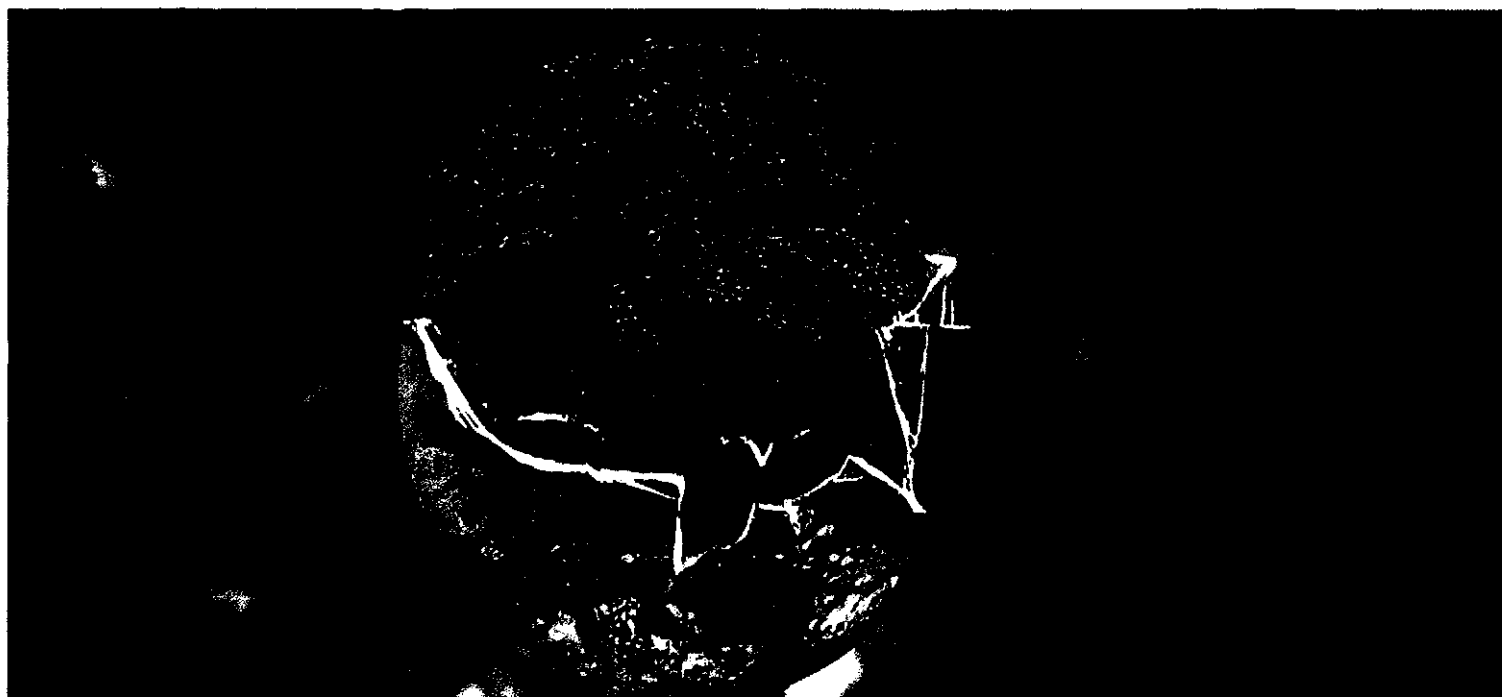
Not Applicable:

It is a distributed solar system and Power Generated through this system will be consumed in-house by the relevant Office/ Plant wherein the system would be installed.

2. Environment Impact Assessment Study



ENVIROMENT IMPACT ASSEMENT STUDY



Extensive fossil fuel consumption in almost all human activities has led to some undesirable phenomena such as atmospheric and environmental pollution, which have not been experienced before in known human history. Consequently, global warming, green house affect, climate change, ozone layer depletion, and acid rain terminologies started to appear in the literature frequently. Since 1970, it has been understood scientifically by experiments and research that these phenomena are closely related to fossil fuel uses because they emit greenhouse gases such as carbon dioxide (CO₂) and methane (CH₄), which hinder the long-wave terrestrial radiation escape into space, and, consequently, the earth troposphere becomes warmer. In order to avoid further impacts of these phenomena, the two concentrative alternatives are either to improve the fossil fuel quality with reductions in their harmful emissions into the atmosphere or, more significantly, to replace fossil fuel usage as much as possible with environmentally friendly, clean, and renewable energy sources. Among these sources, solar energy comes at the top of the list due to its abundance and more even distribution in nature than any other renewable energy type, such as wind, geothermal, hydro, wave, and tidal energies. Solar energy technologies are essential components of a sustainable energy future. Energy from fossil fuels may be inexpensive and assurances may have been given of the plentiful supplies of petroleum and other fossil fuels, but these fuels are finite in nature and a major source of greenhouse gas emissions.

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The Environmental Impact Assessment (EIA) report is prepared to assess the potential environmental impacts associated with the solar plant installation. This report will identify, evaluate, and propose mitigation measures to address the environmental effects of the project, ensuring compliance with local regulations and sustainable development principles.

1.3. Project Location

The proposed site for the solar plant is within the premises of Atlas Honda Limited, located at **F-36, Estate Avenue, S.I.T.E., Karachi**. The site is situated in an industrial area with existing infrastructure suitable for the installation, including rooftops and open spaces that can accommodate solar panels.

1.4. Objectives

- **Energy Efficiency:** Reduce reliance on grid electricity and diesel generators, lowering operational costs.
- **Environmental Impact:** Decrease greenhouse gas emissions and minimize the carbon footprint of Atlas Honda Limited.
- **Sustainability:** Promote the use of renewable energy and contribute to the company's sustainability targets.

2. Rationale:

It is a commonly knowledge that availability of electricity in any country that has direct effect on its economy and social factors and therefore, in order to measure the affluence of a society, the per capita energy consumption is used as index. An economy's production and consumption of electricity are basic indicators of its size and level of development. Although a few countries export electric power, most production is for domestic consumption. Expanding the supply of electricity to meet the growing

demand of increasingly urbanized and industrialized economies without incurring unacceptable social, economic, and environmental costs is one of the great challenges facing developing countries.

Modern societies are becoming increasingly dependent on reliable and secure electricity supplies to underpin economic growth and community prosperity. This reliance is set to grow as more efficient and less carbon intensive forms of power are developed and deployed to help decarbonize economies. Maintaining reliable and secure electricity services while seeking to rapidly decarbonize power systems is a key challenge for countries throughout the world. In developing economies growth in energy use is closely related to growth in the modern sectors - industry, motorized transport, and urban areas - but energy use also reflects climatic, geographic, and economic factors (such as the relative price of energy). Energy use has been growing rapidly in low- and middle-income economies, but high-income economies still use almost five times as much energy on a per capita basis. Governments in many countries are increasingly aware of the urgent need to make better use of the world's energy resources. Improved energy efficiency is often the most economic and readily available means of improving energy security and reducing greenhouse gas emissions. Pakistan's per capita energy consumption of Pakistan Generation of electricity in Pakistan is largely on furnace oil whose substantial quantity is imported, prices whereof adversely affect the generation in the country. Although natural gas is a cheaper fuel however its reserves are depleting rapidly. In these circumstances, the use of solar power in Pakistan appears to be quite an attractive mode of generation of electric power. Further, its use does not require refining, transporting and conveying fuels and power over long distances. Moreover, solar power does not create pollution. Naturally, Pakistan is located in the Sunny Belt and can take advantage of its ideal situation for A utilization of solar energy. The country potential for solar generation is beyond doubt as it has high solar irradiation and enough space for installation of generation system those are ideal for PV and other solar energy applications. Villages and other areas which are away from grid or distribution system of utilities can also benefit from solar power generation which will also save the extra cost of laying the system and the losses. Solar energy, on the other hand, has excellent potential in areas of Pakistan that receive high levels of solar radiation throughout the year. Every day, for example, the country receives an average of about 19 Mega Joules per square meter of solar energy Pakistan being in the Sun Belt is ideally located to take advantage of solar energy technologies. This energy source is widely distributed and abundantly available in the country. The mean global irradiation falling on horizontal surface is about 200-250 watt per sq.m in a day. This amounts to about 2500- 3000 sun shine hours and 1.9 - 2.3 MWh per sq. meter in a year. It has an average daily global isolation of 19 to 20 MJ/sq. meter per day with annual mean sunshine duration of 8 to 8.5 hours (6-7hrs in cold and 10-12 hrs. in hot season) and these values are among the highest in the world. For daily global radiation up to 23MJ/m², 24 (80%) consecutive days are available in this area for solar energy. Such conditions are ideal for solar thermal applications.

Pakistan receives about 15.5x10¹⁴ kWh of solar irradiance each year with most regions receiving approximately 8 to 10 sunlight hours per day. The installed capacity of solar photovoltaic power is estimated to be 1600 GW per year, providing approximately 3.5 PWh of electricity (a figure approximately 41 times that of current power generation in the country). To summarize, the sun shines for 250-300 days per years in Pakistan with average sun shine hours of 8- 10 per day. This gives huge amount of energy to be used for electricity generation by solar photovoltaic and solar thermal power plants. A quick idea for the potential of solar energy in Pakistan can be obtained from the satellite map of solar radiation released by National Renewable Energy Lab (NREL) of USA.

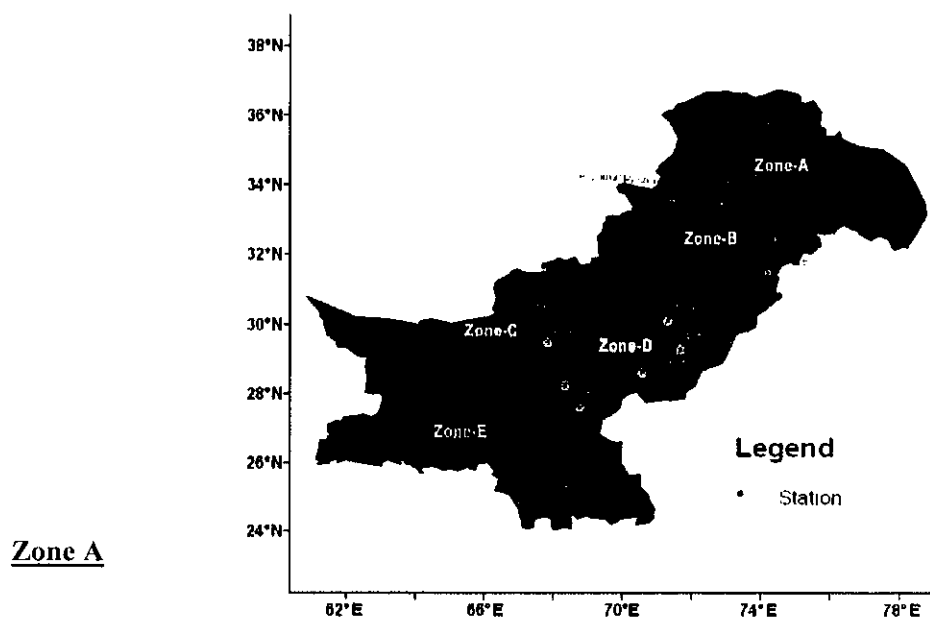
3. Environment Assessment Report:

3.1. Study Area:

Pakistan is geographically situated approximately between 24-37°N latitudes and 62-75°E longitudes in the western zone of south Asia. The distribution of rainfall in Pakistan varies on wide ranges, mostly associated with the monsoon winds and the western disturbances, but the rainfall does not occur throughout the year. Like, Khyber Pukhtonkhuwa (northern mountains) and Balochistan provinces receive maximum rainfall in the months of December to March while in Punjab and Sindh receive 50-75% of rainfall during monsoon season (Kaziet al, 1951; FAO, 1987; Khan, 1993 & 2002; Kureshy, 1998; Luo and Lin, 1999). The precipitation received in the country can be divided into two main seasons, summer or monsoon and winter precipitation. The monsoon rainfall enters Pakistan from east and north east during the month of July to September. During this duration a good amount of rainfall is received in the north and northeastern areas of the country. Winter precipitation (December to March) are mainly received from western disturbances entering from Iran and Afghanistan. The weather systems entering from Afghanistan are called the primary western disturbances and cover only the north and north western parts of the country, whereas those approaching from the Iran are secondary and cover a large area of the country including Balochistan, Punjab, Khyber Pukhtonkhuwa, Kashmir and northern areas and sometimes Sindh province. A large amount of snowfall is received in the northern areas, upper Khyber Pukhtonkhuwa, Kashmir and northern Balochistan and is the main source of water supply for water reservoirs of the country in dry season. This water received from the snow melt and from the seasonal rains plays an important role in the agricultural and socioeconomic activities of the country. Agriculture of Pakistan is mainly climate dependent and every area has its own crops and fruits according to its climate. The country's most important crops and fruits are grown in winter season in different areas according to its climate conditions. If there is any abnormality in the usual climate condition the nation suffers for the whole year and there is also a huge loss to the economy.

3.2. Zone Classification:

Detection of rainfall trend is subject to limitations: there is no clear altitudinal trend of rainfall. Therefore, for analysis, a dataset spreads over a period of 30 years (1976-2005) covering the whole country i.e. 30 stations from extreme north to south and east to west have been selected. The stations included in this study were selected on the basis of their latitudinal position, elevation from sea level, length of record, completeness and reliability of data so that a synoptic view of the entire country could be obtained. Further the selected stations have been divided into five different microclimatic zones. These zones were named A, B, C, D and E as shown in Figure 1, along with their latitudinal extent.



Zone A comprises those stations having cold climate and high mountains, situated in the north of Pakistan. These stations are Chitral, Gilgit, Muzaffarabad, Said-u- Sharif, Skardu, Astor, Dir, Chilas Parachinar and Kakul. These are mostly hill stations located between 34 N to 38 N in the Himalaya, Hindukash and Koh-e- Sufaid mountain ranges.

Zone B

This zone has mild cold climate and Sub Mountains, located between 31N to 34 N. The stations are Sialkot, D.I.Khan, Islamabad, Peshawar, Cherat and Lahore.

Zone C

Climate is cold in winters and hot in summers. Most of them are mountainous stations with high elevations from mean sea level and cover an area between 27 N to 32N and 64 E to 70 E. Stations included in this zone are Quetta, Zhob, Kalat and Khuzdar.

Zone D

This is the hottest and dry zone of the country where highest maximum temperatures are recorded in stations of Sibbi and Jacobabad. The area is almost plain with some area included in Thar Desert. Stations included are Sibbi, Jacobabad, Bahawalpure, Khanpur, Multan and Rohri.

Zone E

Zone E is a big zone having many stations and coastal cities, near to Arabian Sea. The coastal Part comprises only a small part of this region and climate above coastal parts in Balochistan as well as in Sindh province is mostly arid to hyper arid. The selected stations from this zone are Hyderabad, Karachi, Nawabshah and Jewani.

3.3. Existing Environmental Conditions:

a) Physical Environment

- **Climate:** Karachi experiences a hot desert climate with high temperatures and low rainfall, making it suitable for solar energy generation.
- **Topography:** The project site is relatively flat, with no significant natural features that would impact the installation.
- **Soil:** The soil composition is mostly sandy, with moderate load-bearing capacity, suitable for installing mounting structures.

b) Biological Environment

- **Flora and Fauna:** The project site is within an industrial area with minimal vegetation and wildlife. There are no protected species or significant habitats within the vicinity.
- **Air Quality:** The air quality in the area is typical for an industrial zone, with occasional dust and emissions from nearby factories.
- **Noise Levels:** The noise levels are consistent with industrial activities, with no significant noise pollution expected from the solar plant.

c) Socio-Economic Environment

- **Local Community:** The surrounding area is primarily industrial, with no residential communities in close proximity to the project site.
- **Economic Activity:** The installation of the solar plant is expected to create temporary employment opportunities during the construction phase.

The sites are allocated in private land (Roof Top) within the premises of Customer, and the applicant has carried out a detailed environment assessment of the sites in preparation of the Solar PV Plant.

The assessment of the Project has been considered for both positive and negative effects. The proposed photovoltaic Power Project has been located as per international guidelines. Adoption of green power generation with no emission and effluent discharge will have least impact on the ambient environment and on the host community. However, in the long term the project and related activities in areas may bring about slight change in ambient air quality of area.

The importance of the sustainable development concept has increased in the whole world. As a result, some new regulations enforce that all development projects should be compatible with the environmental criterions. An environmental impact assessment should be carried out to make sure that projects are compatible with the environmental criterions. Environmental Impact Assessment (EIA) can be defined as a process of environmental management, planning, and decision-making with a purpose of keeping and improving the quality of the environment.

The main goal is to develop environmentally friendly industrialization. With this kind of environmentally friendly industrialization, "sustainable development" can be a possibility in the future by keeping the usage/protection balance between economic development and the environmental protection.

Every energy generation and transmission method affects the environment. Conventional generating options can damage air, climate, water, land & wildlife, landscape as well as raise the levels of harmful radiation. PV technology is substantially safer offering a solution to many environmental and social problems associated with fossil and nuclear fuels. Solar PV energy technology provides obvious environmental advantages in comparison to the conventional energy sources thus contributing to the sustainable development of human activities. Not counting the depletion of the exhausted natural resources, their main advantage is related to the reduced CO₂ emissions and normally absence of any air emissions or waste products during their operations.

The use of solar power has additional positive implications such as:

- Reduction of the emissions of the greenhouse gases (mainly CO₂, NO_x) and prevention of toxic gas emissions (SO₂, particulates)
- Reduction of the required transmission lines of the electricity grids.

4. Project Environmental Impacts & Mitigation Measures:

This Section discusses the potential environmental impacts, assesses the significance, recommends mitigation measure to minimize the adverse effect and identifies the residual impacts associated with the proposed activities of the project during the construction and operation phase of the proposed project at the proposed site and of secondary actions like potable, raw water and wastewater lines. Solar energy is a lot cleaner when compared with conventional energy sources. Solar energy systems have many significant advantages, like being cheaper and not producing any pollutants during operation and being almost an infinite energy source when compared with fossil fuels. Nevertheless, solar energy systems

have some certain negative impacts on the environment just like any other energy system. Some of these impacts will be summarized in this section.

Identification of Potential Impacts:

- a) Discharge of Pollutants
- b) Visual Impacts
- c) Impact on Natural Resources
- d) Air Pollution
- e) Noise Intrusion
- f) Impact on Air
- g) Impact on Ground Water/ Surface Water
- h) Impact on Solid Waste
- i) Impact on Soil
- j) Impact on Natural Resources

Discharge of Pollutants: Solar cells do not emit any pollutants during their operations. But solar cell modules contain some toxic substances, and there is a potential risk of releasing these chemicals to the environment during a fire. Necessary precautions should be taken for emergency situations like fire. The possibility of an accidental release of the chemicals of the solar cell modules to soil and groundwater poses a great threat for the environment.

Visual Impacts: There will be some visual impacts depending on the type of scheme and the surroundings of the solar cells. Especially for applications on buildings, solar cells can be used as a cladding material that could be integrated into the building during the construction phase. Solar cell applications after the construction phase of the buildings might cause negative visual impacts. Solar cell utilization should be planned at the architectural phase and fitted to the building to minimize visual pollution. For the other application areas, proper sitting and design are important factors, especially for large solar cell applications. Another important factor about the control of the visual impacts is the use of color. Enough care should be taken for the usage of proper colors while assembling the solar cell modules.

Impacts on Natural Resources: Despite being a benign energy system during operation, solar cells have some negative impacts on the environment during their production phase like many other systems. The energy needed for the production of solar energy systems is still produced in conventional methods today. Some toxic chemical substances used during the production phase are produced as a by-product. Especially, the solar cell batteries pose a threat on natural resources by having a short lifespan and containing heavy metals such as cadmium.

Air Pollution: Solar cells do not emit any substances to the air during operation. But there could be some emissions during manufacturing and transport. The emissions associated with the transport of the

modules are insignificant when compared with the emissions associated with the manufacture. Transport emissions are 0.1-1% of the manufacturing emissions.

Noise: Intrusion Solar cells do not make a noise during operation. But during the construction phase, there will be a little noise as usual in other construction activities.

Impact on Air: There would be no hazardous emissions at site as well as during construction phase except Motor Vehicle and Crane. Moreover, there are no objectionable odors as well as alternation of air temperature.

Impact on Ground Water/ Surface Water: There would be no use of water during design phase except curing of civil pads during construction, which have no negative impact on environment.

Impact on Solid Waste: It may only Create litter and trash waste which is recyclable and may be cleared from site after construction.

Impact on Soil: No impacts as all installed systems are roof top.

Impact on Natural Resources: There won't be any increase in the rate of usage of any natural resource like any minerals, additional fuel other than vehicles. But there would be increase in the amount of usage of Paper for mapping, enlisting items etc. However, paper may be recycling by throwing it in ordinary dustbin, further ensure the maximum usage of electronic system e.g. emails.

5. Environment Assessment/ Conclusion:

The site allocated is private land within the premises of Atlas Honda Limited (Plant) and the applicant has carried out a detailed environment assessment of the site for installation of solar PV Plant. Overall findings:

Environment Parameters	Level of Impact	Reasons	Mitigation Measures
Air Impact	Low	Solar Energy is Carbon Free	(No Emissions)
Water	Low	Plant will require a very low quantity of water for cleaning of PV Modules	RO Plant is already installed at site and water from said source may be used for cleaning of PV Modules
Land	Low	No impact on Land	As said project is purely roof based which have no impact on Land
Ecosystem	Low	No ecologically sensitive area lies with in premises	There is no significant vegetation cover within the selected area
Socio Eco System	Low	Total area identified for said project is in plant premises and no acquisition is needed	Not Applicable

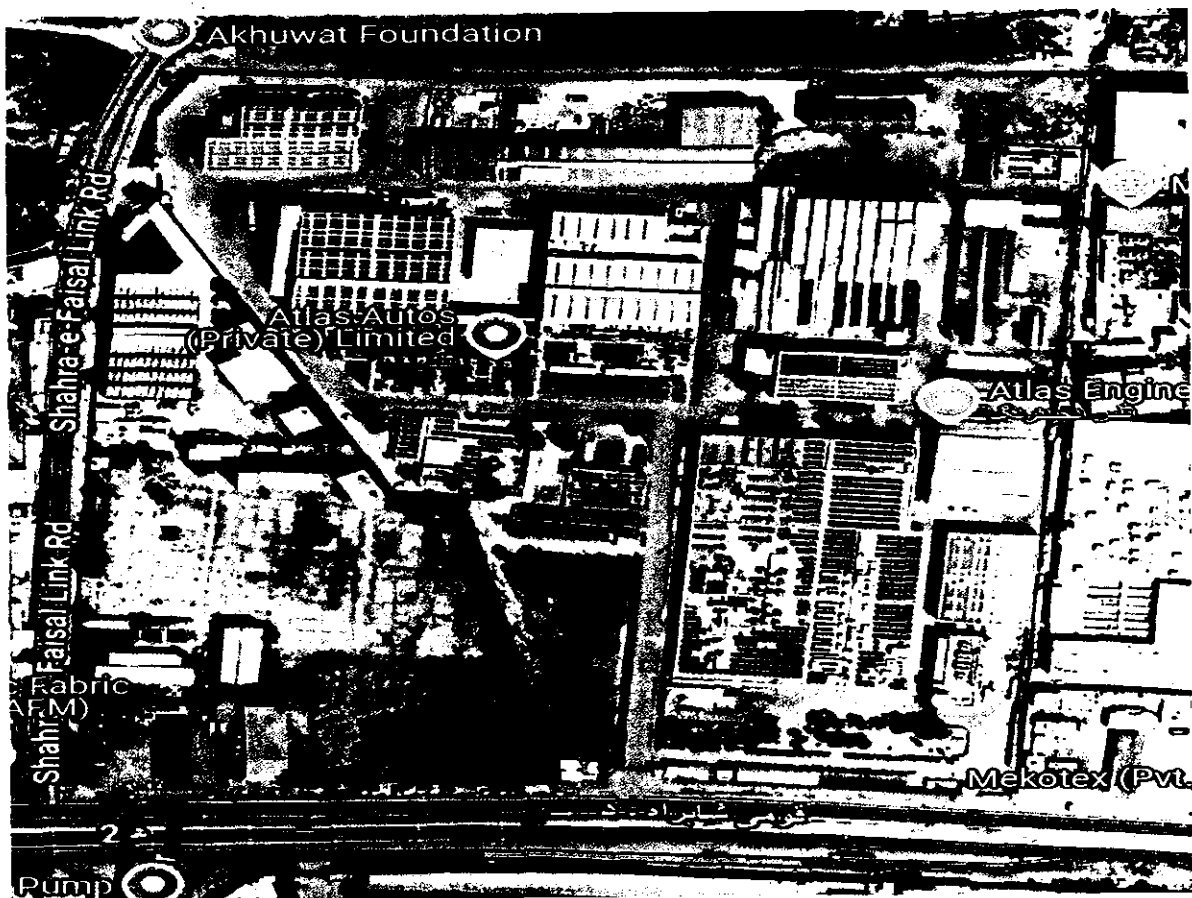
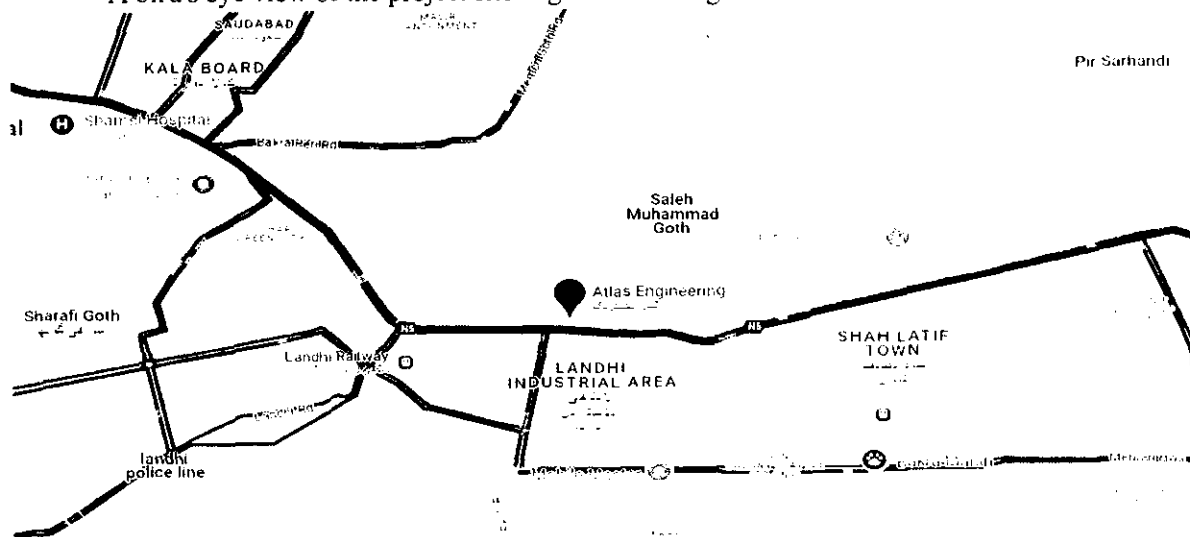
6. Safety plans, emergency plans

- Only qualified and authorized electricians will be allowed to undertake servicing or maintenance tasks.
- The authorized personnel will wear appropriate equipment, including a safety harness to restrain from falling off the roof, sturdy shoes that will have thick rubber soles to provide electrical insulation and good grip and appropriate clothing for personal protection, including a hat, sunglasses, gloves and long pants and sleeves.
- Lock out and tag out procedures will be used before commencement of maintenance tasks.
- On-going operation and maintenance concerns for solar power systems will be addressed properly. These systems are exposed to outdoor weather conditions that enhance the aging process, and the infrastructure needs to be in place for the on-going maintenance of these systems to assure their safe operation.
- Properly grounded or double insulated power tools will be used for maintenance tasks.
- Tools will be maintained in good condition.
- Working on electrical equipment and circuits will be carried out in de-energized state.
- Proper pathways will be available for operation, maintenance and firefighting.
- Fire protection and suppression will be placed at site.

3(i) Location (Location Map, Site Map, Land)

1. Location maps, site maps, land

A bird's eye view of the project site is given in the figure below



**Location: Atlas Engineering Limited
Atlas Industrial Park,
15th Miles, National Highway, Landhi, Karachi.**

2. Site Coordinates & Location:

The project site is the rooftop and exact coordinates of the project site are as below:

Location		Coordinate	
Location: Location: Atlas Engineering Atlas Industrial Park, 15th Miles, National Highway, Landhi, Karachi.		Latitude:	24°51'28.8"N
		Longitude:	67°13'53.4"E

3(ii) Technology, size of plant, number of units

Details of Generation Facility:

Project Profile	
Project Size	950.625 kWp
Location (s)	Atlas Engineering Limited, Atlas Industrial Park, 15 th Miles, National Highway, Landhi, Karachi.
Type of Project	Roof Mounted
Construction Period	7 – 8 Months

Energy Generation:

Project Profile	
Capacity Factor	16.0 %
Annual Energy Generation Units	1,332,396 kWh
Degradation Factor	First Year 2.5% & remaining 24 Years 0.6%

Model & Technical Details of Equipment:

PV Modules	
Type of Module	JKM585M-72HL4-TV
No. Of Modules	1,625 (1,625 * 585) = 950.625 kWp
Type of Cell	Mono PERC Half-Cell
Dimension of each Module	2278×1134×35mm (89.53×44.65×1.38 inch)
Total Module Area	2.583,252 m ²
Frame of Panel	Anodized aluminium alloy
Weight of one Module	27.0 kg
No of Solar Cells in each module	144 (6×24)

Efficiency of module	22.65 %
Maximum Power (P_{max})	585 W _p
Voltage @ P_{max}	43.53 V
Current @ P_{max}	13.44 A
Open circuit voltage (V_{oc})	52.47V
Short circuit current (I_{sc})	14.07 A
Maximum system open Circuit Voltage	1500VDC (IEC)

Inverters		
Description	Technical Specification	
Size & Mode	115 KW SUN2000-115KTL-M2	50 KW SUN2000-50KTL-M3
No. of Inverters	5	4
Input Operating Voltage Range	200 V to 1000 V	200 V to 1000 V
Efficiency of inverter	98.5 %	98.5 %
Max. Allowable Input voltage	1100V	1100V
Max. Current per MPPT	30 A	30 A
Max. Power Point Tracking Range	200 V to 1000 V	200 V to 1000 V
Output electrical system	3 Phase AC	3 Phase AC
Rated Output Voltage	3 / N / PE, 230 / 400 V	230 V / 400 V, 3W + N + PE
Power Factor (adjustable)	0.8 LG...0.8 LD	0.8 LG...0.8 LD
Power control	MPP Tracker	MPP Tracker
Rated Frequency	50 Hz	50 Hz

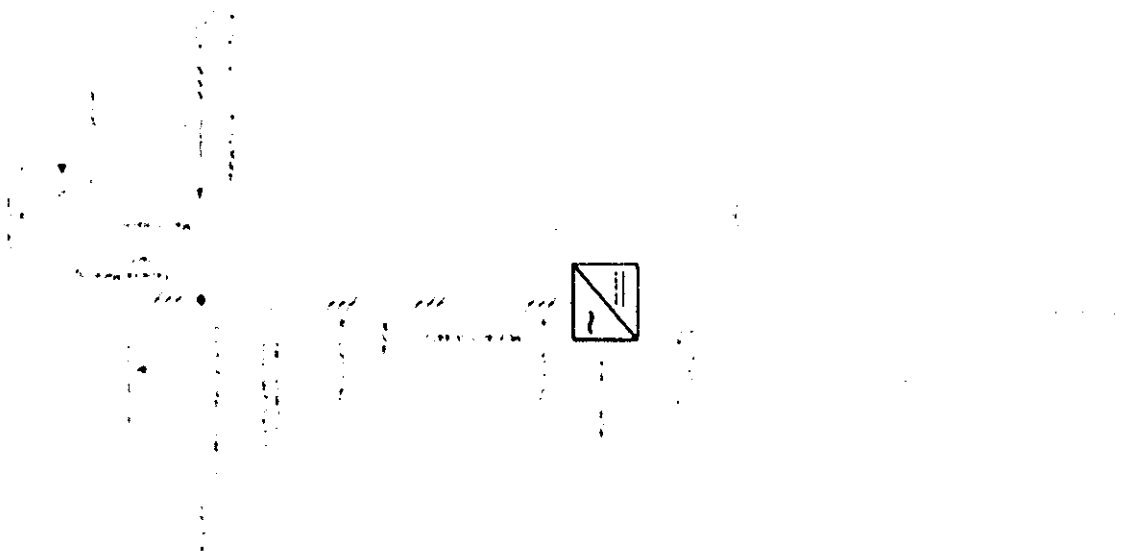
Mounting Structure

Structure	Aluminum Rail Type/ MS painted Parking shed
Tilt Angle	5°
Degradation Factor	First Year 2.5% & remaining 24 Years 0.6%

Data Collecting System

System Data	Continuous online logging with data logging software to portal.
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Single Line Diagram:



The electrical system comprises the following components:

- Array(s) of PV modules
- DC/AC cabling (module, string and main cable)
- DC connectors (plugs and sockets)

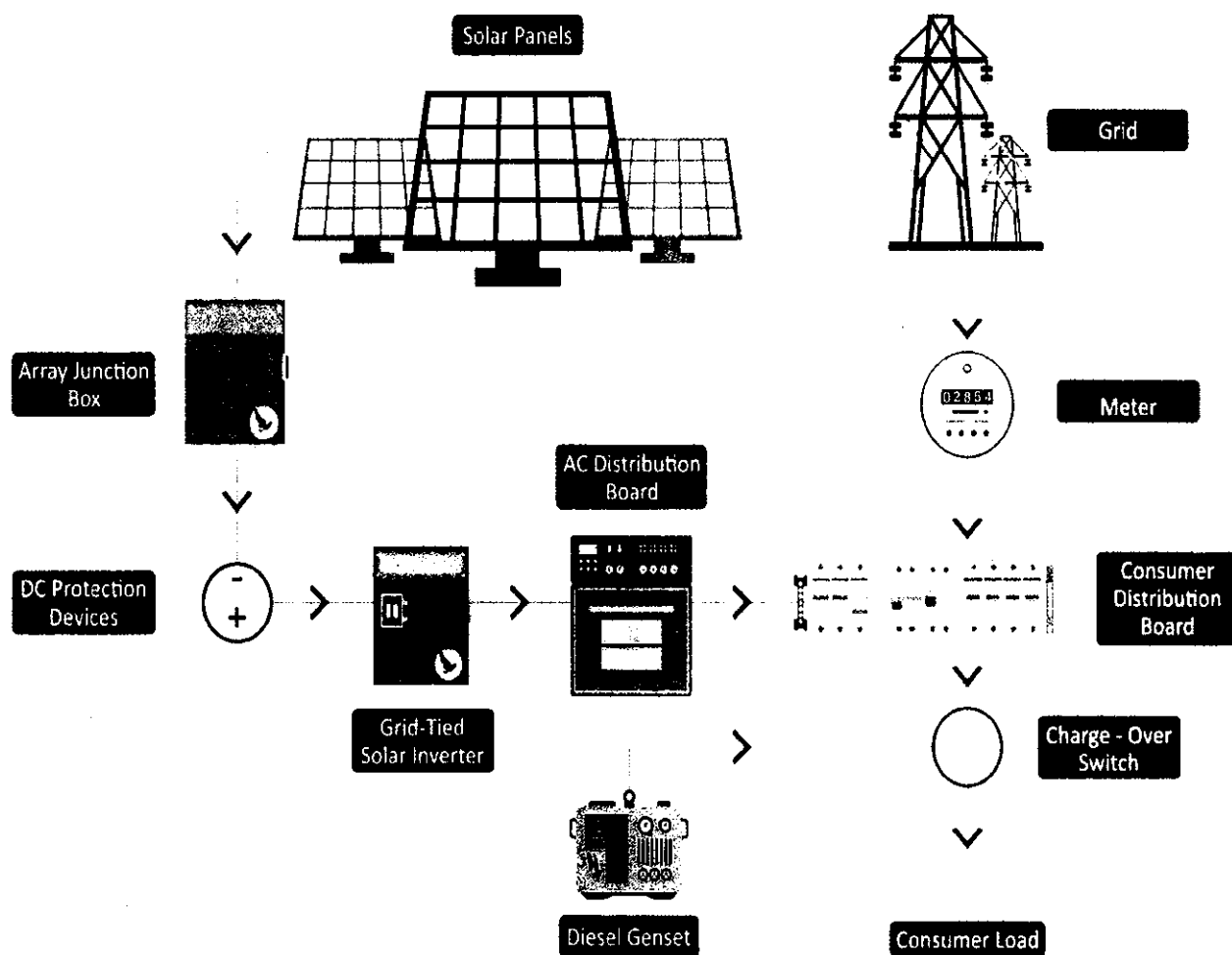
- Junction boxes and combiners
- Disconnects/switches
- Protection devices e.g. fuses, surge protective devices, breakers
- Energy Metering
- Earthing

The single line diagrams of DC and AC sides are given below. The single line diagram includes the protection devices that will be used for safe and smooth operation of the system.

Protections DC Side: 'String Fuses, Surge Protective Device and DC Disconnect Switches

Protections AC Side: MCBs, Main Breaker

Concept Design:



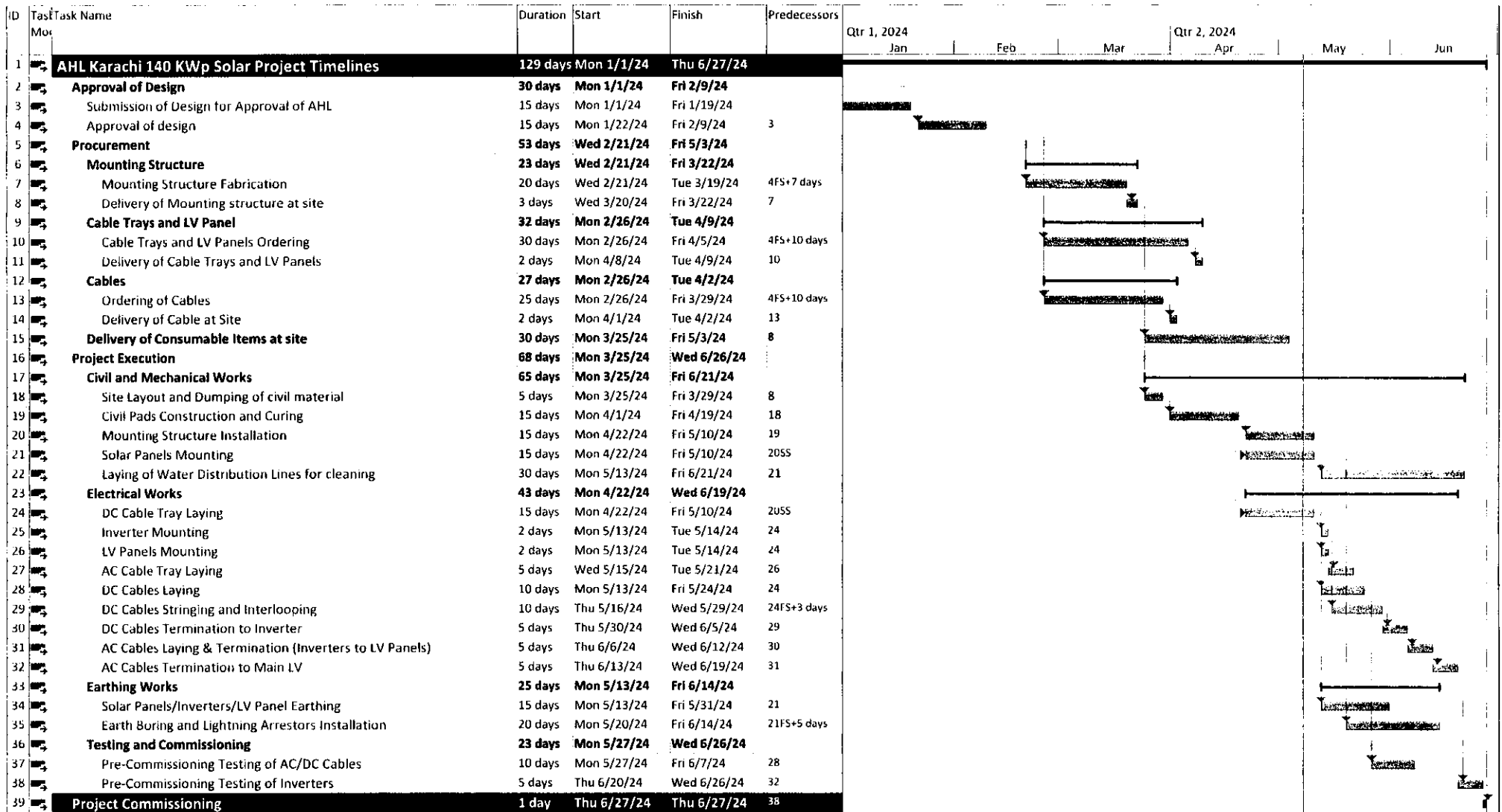
3(iii) Water Source at site for maintenance

The Applicant Company shall use a limited quantity of the tap water available at the generation site for the purposes of washing the PV modules and shall use the available sewerage for disposal to avoid any negative impact on the environment.

3(iv) Infrastructure: road, rail, staff colony, amenities

The site is well-served by existing road and rail infrastructure, with the nearest railway station approximately 4 kilometers away, and offers essential amenities to support the solar facility, with no need for a staff colony as the site is located within the main city.

**3(v) Project Commencement and completion schedule with
milestones**



Project: Pakistan Cable 2 MWp So Date: Wed 5/8/24	Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
	Split		External Tasks		Inactive Summary		Manual Summary		Progress	
	Milestone		External Milestone		Manual Task		Start-only		Manual Progress	
	Summary		inactive Task		Duration-only		Finish-only			

3(vi) Safety plans, emergency plans

Safety plans, emergency plans

- Only qualified and authorized electricians will be allowed to undertake servicing or maintenance tasks.
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- Tools will be maintained in good condition.
- Working on electrical equipment and circuits will be carried out in de-energized state.
- Proper pathways will be available for operation, maintenance and firefighting.
- Fire protection and suppression will be placed at site.

3(vii) Plant characteristics (generation voltage, power factor etc.)

Plant characteristics (generation voltage, power factor etc.)

Generation Voltage	380 to 480
Power Factor	0.8 LG...0.8 LD
Frequency	50 Hz
Automatic Generation Control	Included
Ramping Rate	N/A

3(vii) Control Metering and Instrumentation

Control Metering and Instrumentation

Control Metering and Instrumentation

DC circuit breaker

AC circuit breaker

DC overload protection (Type 2)

Overheat protection

Grid monitoring

Insulation monitoring

Ground fault monitoring

3(ix) Estimated Capacity Factor at Site

3(x) Degradation Factor

Degradation Factor

First Year 2.5% & remaining 24 Years 0.6%