

Dated: May 26, 2025

To,
The Registrar
National Electric Power Regulatory Authority
NEPRA Tower, Attaturk Avenue (East)
Sector G-5/1, Islamabad

Subject: APPLICATION FOR GRANT OF DISTRIBUTION LICENSE FOR FFBL POWER COMPANY LIMITED

I, Lt Col Ali Siddiq (Retd), Company Secretary, FFBL Power Company Limited (FPCL) is the duly authorized representative of FFBL Power Company Limited by virtue of BOARD RESOLUTION dated 01/2025, hereby apply to the National Electric Power Regulatory Authority for the grant of Distribution License to the FPCL pursuant to section 20 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.


I hereby certify that the documents-in-support attached with this application are prepared and submitted in conformity with the provisions of the National Electric Power Regulatory Authority Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021 and undertake to abide by the terms and provisions of the above-said regulations. I further undertake and confirm that the information provided in the attached documents-in-support is true and correct to the best of my knowledge and no material omission has been made.

A Bank Draft in the sum of Rs. 2,575,798 /- (Rupees Two Million Five Hundred and Seventy-Five Thousand Seven Hundred and Ninety-Right), being the license application fee calculated in accordance with Schedule II to the National Electric Power Regulatory Authority Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021, is also attached herewith.

Yours Sincerely,


Lt Col Ali Siddiq (Retd)
Company Secretary

Authorized Representative
FFBL Power Company Limited


Lt Col Ali Siddiq (Retd)
Company Secretary
FFBL Power Company Limited
FFBL Tower C1/C2, Sector-B
Jinnah Boulevard, DHA Phase-II, Islamabad



S.No.	Attachment No	Document	Remarks
1	I	Prospectus	Attached
2	II	Certificate of Incorporation, Memorandum and Article of Association	Attached
3	III	Annual Returns of Company (as per Section 130 of Companies Act)	Attached
4	IV	Share-holding Pattern	Attached
5	V	Evidence of adequate financial and technical resources	-
6	V (a)	Evidence of cash balances held in reserve by applicant, along with bank certificates	Attached
7	V (b)	Details of charges or encumbrances attached to the applicant's assets, if any	Attached
8	V (c)	Latest audited financial statements of the applicant	Attached
9	V (d)	Expressions of interest to provide credit or financing along with sources and details	Attached
10	V (e)	Documents describing the net worth and the equity and debt ratios of the applicant	VIS Report Attached
11	V (f)	Reasonably detailed profile of the applicant and the applicant's staff	Attached
12	V (g)	Employment records of engineering and technical staff of the applicant	Attached
13	V (h)	Profile of sub-contractors, if any, along with expressions of interest	Not Applicable
14	V (i)	Verifiable references in respect of the experience of the applicant and sub-contractors	Attached
15	VI	Technical and financial proposals for O&M, planning & development	Attached
16	VII	Board resolution	Attached
17	VIII	Affidavit for Correctness of documents	Attached
18	IX	Bank Guarantee equivalent to applicable annual license fee for two years.	Not Applicable
19	X	Environmental and Social Soundness Assessment (ESSA) Study	Attached
20	XI	System Studies	Attached
21	XII	Patrolling and Inspection Procedures	Attached
22	XIII	Maintenance Plans and Procedures	Attached
23	XIV	Fault Location/Troubleshooting Procedures	Attached
24	XV	Training and Development Procedure Manuals	Attached
25	XVI	Information in support of distribution expansion	Attached
Additional Documents as per AMEC Regulations			
26	XVII	Distribution system configuration	Attached
27	XVIII	Service territory, right of way, and feeder maps	
28	XIX	Voltage levels and regulation	Attached
29	XX	Type of distribution system	Attached
30	XXI	Line equipment characteristics	Attached
31	XXII	Power quality control	Attached
32	XXIII	Back-up/express feeder provision	Attached
33	XXIV	Accident protection and prevention procedures	Attached
34	XXV	Emergency provisions	Attached
35	XXVI	Protection, control, and measuring instruments	Attached
36	XXVII	Type of metering system to be used	Attached
37	XXVIII	Metering installation and testing facilities	Attached
38	XXIX	Communication systems	Attached
The Eligibility Criteria (Distribution Licenses) Rules, 2023			
39	XXX	SECP Certificate of Incorporation	Attached
40	XXXI	Service Territory	Pls refer to Att. XVIII
41	XXXII	Minimum Solvency Requirements Fulfilment	Attached
42	XXXIII	Minimum technical and human resource Fulfilment	Attached
43	XXXIV	shall have the ability to ensure prompt and effective coordination with the system operator, market operator and other relevant entities to comply with the provisions of the grid code, commercial code, distribution code and other relevant legal instruments as applicable	Not Applicable
44	XXXV	shall have the ability to ensure its quality of distribution service by	Not Applicable
45	XXXVI	shall have a robust IT strategy outlining the planning and execution roadmap for ensuring transparency, effectiveness, efficiency, and security in all operations of the distribution of electric power comprising	Not Applicable
46	XXXVII	In addition to the requirements in sub-rule (1), the applicant shall have the ability to prepare a distribution plan in coordination with system operator, national grid company, provincial grid company and other distribution licenses as per the provisions of the grid code and distribution code.	Not Applicable

ATTACHMENT I

PROSPECTUS

FPCL

FFBL Power Company Limited

PROSPECTUS

Introduction of the Company

FFBL Power Company Limited ("FPCL" or the "Company") is an unlisted public limited company incorporated in June 2014 as a Special Purpose Vehicle (SPV) for establishing a Coal Power Plant (CPP) at Port Qasim, Karachi. The Company started its Commercial Operation in May 2017.

FPCL is a wholly owned subsidiary of Fauji Fertilizer Company and Fauji Group (FF). FPCL is a customized power plant providing "Power to existing Fertilizer Plant (Ammonia, Urea & DAP production units) of FFBL @ 60 Hz along with Power Export to National Grid @ 50 Hz".

Salient Features of the Facility

The coal power plant (CPP) of FPCL is located at Port Qasim, Karachi, in the province of Sindh, covering approximately 50 acres of land. The facility has the capacity to generate 500 Tons Per Hour (TPH) of steam through two (02) equal-capacity Circulating Fluidized Bed (CFB) high-pressure coal-fired boilers. The installed capacity of the existing plant is 118 MW.

As part of the modification, the new project will incorporate modification to the existing system. The modification involves the addition of FonGreen Silicon Technologies Limited (FoST) "as BPC" to the current system, which has a total capacity of 118 MW. Within this, >01 MW will be supplied via a dedicated Feeder from the FPCL battery limit to the FoST battery limit.

The salient features of the facility are outlined below:

FPCL

FFBL Power Company Limited

Existing Plant Features	
Plant Location	Plot No. EZ/I/P-1 Eastern Industrial Zone, Port Qasim, Karachi 75020
Type of Facility	Coal Fired Thermal Power Plant
Fuel	Coal
Buyers	FFC, K-Electric and FoST (FoST as a New BPC)
Total Gross Installed Capacity	118 MW
Plant Configuration	2 x 24 MW & 1 x 10 MW (60 Hz) 1 x 60 MW (50 Hz)
Life of facility	30 years

Proposed Investment

The proposed power supply to the new Bulk Power Consumers (BPCs), namely FonGreen Silicon Technologies Limited (FoST) involves the following capital structures:

1. Power Supply Infrastructure for FoST

Total Capital Expenditure (CAPEX): USD 3.1 million.

Financing Structure: The entire investment will be equity-financed by the Fauji Group, with no external debt component.

This arrangement ensures timely deployment of infrastructure within FPCL's existing facility footprint, with full ownership and funding borne by the project sponsor.

This financial structure reflects the commercial viability and bankability of the project components, without requiring any increase in FPCL's licensed generation capacity.

FPCL

FFBL Power Company Limited

Social and Environmental Impact of the Proposed Facility

FPCL has carried out a detailed Environmental Impact Assessment Study ("EIA Study") through M/s Hagler Bailly in accordance with the standards and requirements of the World Bank / International Finance Corporation and National Environmental Quality Standards. EIA Study was submitted to the Sindh Environmental Protection Agency ("SEPA") and was submitted for approval.

Public and Technical hearing was conducted by SEPA and NOC No. EPA/2014/03/04/EIA/05 from SEPA was granted to the project.

FPCL remains committed to environmental compliance in its operation and will develop processes and programs to proactively prevent and mitigate any possible adverse impacts on the environment.

ATTACHMENT II

CERTIFICATE OF INCORPORATION, MEMORANDUM AND ARTICLE OF ASSOCIATION



SECURITIES AND EXCHANGE COMMISSION OF PAKISTAN

1st Floor SLIC Building No.7, Blue Area,
Islamabad

CERTIFICATE OF INCORPORATION

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

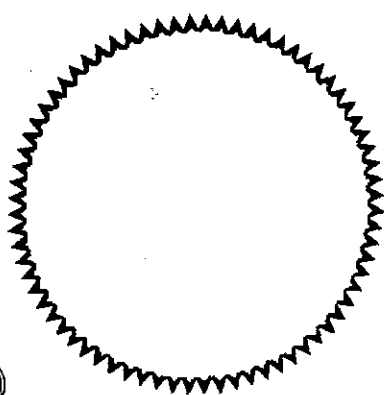
Corporate Universal Identification No. 0088996

I hereby certify that **FFBL POWER COMPANY 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 Islamabad this 27th day of June, Two Thousand and Fourteen.

Fee Rs. 16,272,000/-

(Shaukat Hussain)
Additional Registrar of Companies



No. ADI
Dated

72307
20/6/14



COMPANIES ORDINANCE 1984

MEMORANDUM OF ASSOCIATION

OF

FFBL POWER COMPANY LIMITED (FPCL)

(COMPANY LIMITED BY SHARES)

- I. The name of the Company is "FFBL POWER COMPANY LIMITED".
- II. The Registered Office of the Company shall be situated in the Islamabad Capital Territory.
- III. The objects for which the Company is established are to undertake any or all of the following activities and businesses subject to the approval from concerned authorities:
 1. To carry on all or any of the business of power generation, transmitting, purchasing, importing, transforming, converting, distributing, supplying, exporting, utilizing and dealing in electricity and all other forms of energy and products or services associated therewith or resulting therefrom and of promoting the conservation and efficient use, supply or sale of electricity and all other forms of energy and commodities produced thereby, and to exercise all other powers necessary or incidental to the business of electricity generation, transmission, distribution, sale and supply; including in the term 'electricity' all power that may be directly or indirectly derived therefrom or may be incidentally hereafter discovered in dealing with electricity.
 2. To ascertain the tariff for supply of power that will secure recovery of operating costs, interest charges and depreciation of assets redemption at due time of loans other than those covered by depreciation, expansion, projects, payment of taxes, and a reasonable return on investment, to obtain any approval thereof as may be required by law or license for the time being in force, to quote the tariff to purchasers of electrical power.
 3. To locate, establish, construct, equip, operate, use, manage, maintain and own electric power generation facilities including all apparatus and things required for or capable of being used in connection with generation, distribution, supply, accumulation and employment of electricity, *inter alia*



contractors, constructors, operators, users, inspectors, reconditioners, services, improvers, altars, protectors, removers, hirers, replacers, importers and exporters of, and dealers in electrical appliances, systems, products and services used for energy conservation, domestic, commercial, agricultural, industrial, household and general equipment, furniture, fixtures, fittings, devices, machinery, materials and installations, including but not limited to cables, wires, meters, pylons, tracks, rails, pipelines and any other plant, apparatus equipment, systems and things incidental to the efficient generation, procurement, transformation, supply and distribution of electricity.

8. To purchase, take on lease or in exchange, hire, import, apply for or otherwise acquire and hold for any interest, any rights, privileges, lands, buildings, easements, trademarks, patents, patent rights, copyrights, licences, equipment, machinery, plants, stock-in-trade and movable and immovable property of any kind necessary or convenient purposes of or in connection with the Company's business or any branch or department thereof and to use, exercise, develop, grant licences in respect of or otherwise turn to account any property, rights and information so acquired, subject to any permission required under the law.
9. To acquire by concession, grant, purchase, barter, licence either absolutely or conditionally and either solely or jointly with others any lands, buildings, machinery, plants, equipment, privileges, rights, licences, trademarks, patents, and other movable and immovable property of any description which the Company may deem necessary or which may seem to the Company capable of being turned to account, subject to any permission as required under the law.
10. To enter into arrangements, contracts or transactions, with the government or authority (supreme, municipal, local or otherwise) or any corporation, company, persons or entity (public or private) that may seem conducive for the purpose of the Company's objects or any of them and to obtain from any such government, authority, corporation, company or person any charters, contracts, rights, privileges and commission which the Company may think desirable and to carry on exercise and comply with any such charters, contracts, decrees, rights, privileges and concessions.
11. To open accounts with any Bank or Banks and to draw, make, accept, endorse, execute, issue, negotiate and discount cheques, promissory notes, bills of exchange, bills of lading, warrants, deposit notes, debentures, letter of credit and other negotiable instruments and



otherwise deemed required by the Company.

21. To apply for and obtain necessary consents, permissions and licences from any Government, State, provincial, federal, local and other Authorities for enabling the Company to carry on any of its objects into effect as and when required by law.
22. It is further declared that in case, the registration with the Securities and Exchange Commission of Pakistan, or other formalities are required, the Company will fulfill all requirements accordingly.
23. Notwithstanding anything stated in any object clause the company shall obtain such other approval or license from competent authority as may be required under any law for the time being in force to undertake a particular business.
24. It is declared that notwithstanding anything contained in the foregoing object clauses of this Memorandum of Association nothing contained therein shall be construed as empowering the Company to undertake or to indulge in business of security services payment systems, Electronic funds transfers in and outside Pakistan, deposit taking from general public, network marketing, referral marketing & direct selling banking company, leasing investment, managing agency, insurance business, any of the NBFC business, multi-level marketing (MLM), Pyramid and Ponzi Scheme, commodity, future contract or shares trading business locally or internationally, directly or indirectly as restricted under the law or any unlawful operation.

IV. The liability of the members is limited.

V. The authorized capital of the Company is **Rs. 9,000,000,000 (Rupees Nine Billion)** divided into **900,000,000 (Nine hundred million)** ordinary shares of **Rs 10 (Rupees ten only)** each with powers to the company from time to time to increase and reduce its capital subject to any permission required under the law.

THE COMPANIES ORDINANCE, 1984

(COMPANY LIMITED BY SHARES)

ARTICLES OF ASSOCIATION

OF

FFBL POWER COMPANY LIMITED (FPCL)

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 the same are expressly made applicable by the said Ordinance, or these Articles. The regulation for management of the Company, and for the observance thereof by the members of the Company, and their representatives shall, subject as aforesaid and to any exercise of the statutory power of the Company in reference to the repeal or alteration of or addition to its regulations by Special Resolution as prescribed by the said Ordinance, be such as are contained in these Articles.

INTERPRETATION

2. In the interpretation of these Articles the following expressions shall have the following meanings, unless repugnant to or inconsistent with the subject Articles.
- 2.1 "Articles" means these Articles of Association as originally framed or altered from time to time by Special Resolutions;
- 2.2 "Board" means a Board of the Directors, elected by the shareholders, to act on their behalf in the management of the Company affairs;
- 2.3 "Chairman" means the Chairman of the Board appointed from time to time pursuant to Article 70.
- 2.4 "Company" means FFBL Power Company Limited;
- 2.5 "Debenture" shall include Participation Term Certificates and Term Finance Certificates;
- 2.6 "Directors" means the Directors of the Company appointed or elected from time to time pursuant to these Articles and shall include alternate Directors;
- 2.7 "Dividend" means the distribution of profits of the Company to its Members and includes bonus shares;
- 2.8 "Member" means a member of the Company within the meaning of Section 2(21) of the Ordinance;
- 2.9 "Memorandum" means the Memorandum of Association of the Company as originally framed or as altered from time to time in accordance with the provisions of the Ordinance;



increase or reduce the same and to divide the shares into several classes in accordance with the provisions of the Ordinance

The shares shall be under the control of the Board of Directors who may allot or otherwise dispose of the same or any of them to such Persons, on such terms and conditions and at such times, as the Board of Directors think fit, and at a premium or at par or, subject to the provisions of the Ordinance, at a discount and for such consideration as the Board thinks fit. Shares may also be allotted in consideration other than cash, in accordance with the provisions of the Rules. The minimum subscription upon which the Directors may proceed to make the first allotment of shares shall be Rs 1,000,000/- (Rupees One Million) (100 000 shares of Rs 10 each)

Fully paid shares shall be allotted to all subscribers in the first instance and the Company shall not be bound to recognize any equitable, contingent, future or partial claim to or interest in a share on the part of any person other than the registered shareholder, save as herein provided or save as ordered by a Court of competent jurisdiction

The certificate of title to shares shall be issued under the Seal of the Company

Every Member shall be entitled to one certificate for the shares registered in his name, or at the discretion of the Directors to several certificates, each for one or more of such shares.

Subject to Section 88 of the Ordinance, where at any time the Board decides to increase the issued capital of the Company by issuing any further shares, then subject to any direction to the contrary that may be given by the Company in general meeting, such shares shall be offered to the Members in proportion to the existing shares held by each Member, and such offer shall be made by notice specifying the number of shares to which the Member is entitled, and limiting a time within which the offer, if not accepted, will be deemed to be declined and after the expiration of such time, or on receipt of information from the Member to whom such notice is given that he declines to accept the shares offered, the Board may, subject to sub-section (7) of Section 86 of the Ordinance, dispose of the same in such manner as it may consider most beneficial to the Company.

Subject to the provisions of the Ordinance, the Rules and the Articles, the Board may allot and issue shares in the capital of the Company as payment or part payment for any property sold or transferred, goods or machinery supplied, or for services rendered to the Company in the conduct of its business or affairs.

If a share certificate is worn out, defaced, lost, rendered useless or destroyed, it may be renewed on payment of such fee, if any, not exceeding one hundred rupees (or any other limit prescribed by law), and on such terms, if any, as to evidence and indemnity and payment of expenses incurred by the Company in investigating title as the Directors think fit.

Except to the extent and in the manner allowed by section 95, no part of the funds of the Company shall be employed in the purchase of, or in loans upon the security of, the Company's shares.



If the Directors refuse to register a transfer of shares, they shall within thirty (30) days after the date on which the transfer deed was lodged with the Company notify the defect or invalidity to the transferee, who shall, after removal of such defect or invalidity be entitled to re-lodge the transfer deed with the Company.

19. The legal heirs, executors or administrators of a deceased shareholder shall be the only person to be recognized by the Directors as having title to the shares. In case of shares registered in the name of two or more holders, the survivors and the executors of the deceased shall be the only persons to be recognized by the Company as having any title to the shares. Nothing herein contained shall release the estate of a deceased shareholder (whether sole or joint), from any liability (whether sole or joint) in respect of any share solely or jointly held by him.
20. No shares shall be transferred to an insolvent or as otherwise prohibited by law.

ALTERATION OF CAPITAL

21. The Company may, from time to time, by Special Resolution increase the share capital by such sum, to be divided into shares of such amount, as the Special Resolution shall prescribe.
22. All further issue of shares capital shall first be subject to the provisions of Section 86 as are applicable to the Company.
23. Except as otherwise provided by the conditions of issuance, the new shares shall be subject to the same provisions with reference to transfer, transmission and otherwise as the shares in the original share capital.
24. The Company may, by Special Resolution:
- (a) consolidate and divide its share capital into shares of larger amount than its existing shares;
 - (b) sub-divide its existing shares or any of them into shares of smaller amount than is fixed by the Company's Memorandum, subject, nevertheless, to the provisions of Section 92; or
 - (c) cancel any shares which, at the date of the passing of the resolution, have not been taken or agreed to be taken by any Person.
25. The Company may, by Special Resolution, reduce its share Capital in any manner and with, and subject to any incident authorized and consent required by law.



NOTICE AND PROCEEDINGS OF GENERAL MEETING

Twenty one (21) days notice at the least (exclusive of the day on which the notice is served or deemed to be served, but inclusive of the day for which notice is given) specifying the place, the day and the hour of meeting and, in case of special business, the general nature of that business shall be given in the manner provided by the Ordinance for the general meeting, to such Persons as are, under the Ordinance or the regulations of the Company, entitled to receive such notice from the Company, but the accidental omission to give notice to, or the non-receipt of notice by, any Member shall not invalidate the proceedings at any general meeting.

- 35 All business shall be deemed special that is transacted at an extraordinary general meeting, and also all that is transacted at an annual general meeting with the exception of declaring Dividend, the consideration of the accounts, balance sheet and the reports of the Directors and auditors, the election of the Directors, the appointment of, and the fixing of the remuneration of the auditors.

QUORUM

- 36 No business shall be transacted at any general meeting unless a quorum of Members is present at that time when the meeting proceeds to business, save as herein otherwise provided. Members having twenty five percent of the voting power present in Person or through proxy and three Members personally present will be quorum of the Company's meeting.
- 37 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 quorum is not present within half an hour from the time appointed for the meeting, the Members present being not less than three, shall be a quorum.
- 38 The Chairman may, with the consent of any meeting at which the quorum is present and shall if so directed by the meeting, adjourn the meeting from time to time but no business shall be transacted at any adjourned meeting other than the business left unfinished at the meeting from which the adjournment took place. When the meeting is adjourned for ten (10) days or more, notice of the adjourned meeting shall be given as in the case of an original meeting. Save as aforesaid, it shall not be necessary to give any notice of an adjournment of the business to be transacted at an adjourned meeting.
- 39 At any 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. Unless a poll is so demanded, a declaration by the Chairman that a resolution has, on a show of hands, being carried, or carried unanimously, or by particular majority, or lost or an entry to that effect in the book of the proceedings of the Company shall be conclusive evidence of the fact, without proof of the number or proportion of the votes recorded in favour of, or against that resolution.
- 40 A poll may be demanded only in accordance with the provisions of section 167 of the Ordinance.



of the district of
 a Member of the FABL POWER COMPANY, LIMITED hereby appoint
 of as my proxy to vote for me and on my behalf at the
 annual, extraordinary, as the case may be, general meeting of the Company, to be
 on the day of and at any adjournment thereof

DIRECTORS

49. The following persons shall be the first Directors of the Company, who are also the subscribers to the Memorandum, and shall hold the office upto the date of the first annual general meeting.

- Mr. Muhammad Mustafa Khan
- Mr. Muhammad Haroon Aslam
- Mr. Naeem Khalid Lodhi
- Mr. Qaiser Javed
- Mr. Nadeem Inayat
- Syed Jamal Shahid
- Mr. Gulfam Alam
- Syed Aamir Ahsan
- Mr. Ifkhar Ahmed

TERMS OF OFFICE, REMOVAL AND CASUAL VACANCIES

50. The number of Directors shall not be less than three (3).
51. The Board shall fix the number of elected Directors of the Company not later than thirty five (35) days before the convening of the general meeting at which Directors are to be elected, and the number so fixed shall not be changed except with the prior approval of the Company in general meeting.
52. No person, whether a retiring Director or otherwise, shall be eligible for election as a Director unless notice of his candidature for election has been lodged in writing at the Office not less than fourteen (14) days before the date of the meeting at which an election of Directors is to take place.
53. The Directors shall comply with the provisions of sections 174 to 178 and sections 180 and 184 of the Ordinance relating to the election of Directors and matters ancillary thereto.
54. The Company may remove a Director but only in accordance with the provisions of the Ordinance.
55. Save as provided in Section 187 of the Ordinance, no Person shall be appointed as a Director unless he is a Member of the Company.
56. A Director elected shall hold office for a period of not more than three (3) years, unless he resigns, becomes disqualified from being a Director or otherwise ceases to hold office earlier.



- (2) to purchase or otherwise acquire for the Company any property, rights or privileges which the Company is authorised to acquire at such price and generally on such terms and conditions as they think fit and, subject to the provisions of Section 196(3)(a) of the Ordinance, to sell, let, exchange or otherwise dispose of, absolutely or conditionally, any part of the property, privileges and under-taking of the Company upon such terms and conditions, and for such consideration as they may think fit
- (3) at their discretion to pay for any property rights and privileges acquired by or services rendered to the Company either wholly or partially in cash or in shares (subject to Section 86 of the Ordinance), bonds, debentures or other securities of the Company, and any such bonds, debentures or other securities may be either specifically charged upon all or any part of the property of the Company or not so charged
- (4) to secure the fulfillment of any contracts, agreements or engagements entered into by the Company by mortgage or charge of all or any of the property of the Company for the time being or in such other manner as they think fit
- (5) to appoint, and at their discretion, remove or suspend such agents, secretaries, officers, legal advisors, clerks and servants for permanent, temporary or special services as they may from time to time think fit and to determine their powers and duties and fix their salaries or emoluments and to require security in such instances and to such amount as they think fit, and to send any such persons to foreign countries for technical education or otherwise for the purpose of the Company's business and pay all expenses thereof on such terms as the Directors may think fit.
- (6) to appoint any person or persons (whether incorporated or not) to accept and hold in trust for the Company any property belonging to the Company or in which it is interested or for any other purposes and to execute and do all such trusts and also all such deeds, documents and things as may be requisite in relation to any such trust and to provide for the remuneration of such trustee or trustees.
- (7) to institute, conduct, defend, compound or abandon any legal proceedings by or against the Company or its officers or otherwise concerning the affairs of the Company and also, subject to the provisions of Section 196(3)(b) of the Ordinance, to compound and allow time for payment and satisfaction of any debts due and of any claims or demands by or against the Company.
- (8) to refer any claims or demands by or against the Company to arbitration and observe and perform or resist the awards.
- (9) to act on behalf of the Company in all matters relating to bankrupts and insolvents.
- (10) to determine who shall be entitled to sign on the Company's behalf bills, notices, receipts, acceptances, endorsements, cheques, releases, contracts and documents.
- (11) from time to time to provide for the management of the Company either in different parts of Pakistan or elsewhere in such manner as they think fit, and in particular to establish branch offices and to appoint any persons to be attorneys or agents of the Company with such powers (including power to sub-delegate) and upon such terms as may be thought fit

outright subject to any conditions or as collateral security for any debt, liability or obligation of the Company or of any third party

1185

In addition to or in furtherance of any requirement under the Ordinance, the Directors shall cause minutes to be made in books provided for the purpose -

- (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 the Directors
- (c) of all resolutions and proceedings at all meetings of the Company and of the Directors and of committees of Directors.


Every Director present at any meeting of Directors shall sign his name in a book kept for that purpose.

DISQUALIFICATION OF DIRECTORS

- 65. No Person shall become a Director of a Company if he suffers from any of the disabilities or disqualifications mentioned in section 187 of the Ordinance and, if already a Director, shall cease to hold such office from the date he so becomes disqualified or disabled; provided, however, that no Director shall vacate his office by reason only of his being a Member of any company which had entered into contracts with, or done any work for, the company of which he is director, but such Director shall not vote in respect of any such contract or work, and if he does so vote, his vote shall not be counted.
- 67. The Director shall cease to hold office in accordance with the provisions of Section 188 of the Ordinance

PROCEEDINGS OF DIRECTORS

- 68. The Directors may meet together for the dispatch of business, adjourn and otherwise regulate their meetings, as they think fit. Questions arising at any meeting shall be decided by a majority of votes. In case of an equality of votes, the Chairman shall have and exercise a second or casting vote. A Director may, and the secretary on the requisition of a Director shall, at any time, summon a meeting of Directors. It shall not be necessary to give notice of a meeting of Directors to any Director for the time being absent from Pakistan.
- 69. The Directors may elect the Chairman of their meetings who shall be the nominee of Fauji Foundation and determine the period for which he is to hold office; but, if no such Chairman is elected, or if at any meeting the Chairman is not present within ten minutes after the time appointed for holding the same or is unwilling to act as Chairman, the Directors present may choose one of their number who shall be the nominee of Fauji Foundation to be Chairman of the meeting.
- 70. A resolution in writing signed by all the Directors present in or outside Pakistan, for the time being entitled to receive notice of a meeting of the Directors shall be as valid and effectual as if it had been passed at a meeting of the Directors duly convened and held.



The Company in general meeting may declare Dividends, but no Dividends shall exceed the amount recommended by the Board.

The Board may, from time to time, pay to the Members such interim Dividends as appear to be justified by the profits of the Company.

- 81 No Dividends shall be paid otherwise than out of profits of the year or any other undistributed profits from prior years.
- 82 The Board may, before recommending any Dividend, set aside out of the profits of the Company, such sum as they think proper as a reserve or reserves, which shall, at the discretion of the Board, be applicable for meeting debt obligations or contingencies, or for equalizing Dividends, or for any other purposes to which the profits of the Company may properly be applied, and pending such application may, in the like discretion, either be employed in the business of the Company or be invested in such investments, other than shares of the Company, as the Board may from time to time think fit.
- 83 No Dividend shall bear interest against the Company. The Dividend shall be paid within the period laid down in the Ordinance.
- 84 The Directors may carry forward any profits which they may think prudent not to distribute, without setting them aside as a reserve.

CAPITALIZATION

- 85 Any general meeting may, upon recommendation of the Board, by resolution resolve that any undistributed profits of the Company, (including profits carried and standing to the credit of any reserves or other special accounts or representing premiums received on the issue of shares and standing to the credit of the share premium account and capital reserves arising from realized or unrealized appreciation of the assets or goodwill of the Company or from any acquisition/ sale of interest in other undertakings) not required for paying the Dividends on any shares, be capitalized. Such capitalized undistributed profits and reserves shall be distributed amongst the shareholders in the same proportions as if the same were being distributed by way of Dividend. All or any part of such capitalized fund may be applied on behalf of such shareholders for payment in full or in part either at par or at such premium as the resolution may provide, for any unissued shares or Debentures of the Company which shall be distributed accordingly, and such distributions or payment shall be accepted by such shareholders in full satisfaction of their interest in the said capitalized sum.

THE SEAL

- 86 The Directors shall provide for the safe custody of the Seal and the Seal shall not be affixed to any instrument except by the authority of a resolution of the Board of Directors or by a committee of Directors authorized in that behalf by the Directors and the presence of at least two Directors; and those two

address, or if he has no registered address in Pakistan to the address supplied to the Company for the giving of notices to him.

WINDING UP

96. If the Company shall be wound up, whether voluntarily or otherwise the liquidator may, with the sanction of a Special Resolution and any other sanction required by the Ordinance, divide amongst the Members in specie or kind, the whole or any part of the assets of the Company, whether they consist of property of the same kind or not.
97. For the purposes aforesaid, the liquidator may set such value as he deems fair upon any property to be divided as aforesaid and may determine how such division shall be carried out as between the Members or different classes of Members.
98. The liquidator may, with the like sanction, vest the whole or any part of such assets in trustees upon such trust for the benefit of the contributories as the liquidator, with the like sanction, think fit, but so that no Member shall be compelled to accept any shares or securities whereupon there is any liability.

INDEMNITY

99. Every Director, Chairman, managing director, chief executive, manager or officer of the Company or any person (whether an officer of the Company or not) employed by the Company as auditor or advisor shall be indemnified out of the funds of the Company against any liability incurred by him as such Director, Chairman, managing director, chief executive, manager, officer, auditor or adviser 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 of the Ordinance in which relief is granted to him by Court.
100. No Director, Chairman, managing director or other officer of the Company will be liable for the acts, receipts, neglects or defaults of any other Director or officer or for any loss or expenses happening to the Company through the insufficiency or deficiency of title to any property acquired by the order of the Board or other Officer for or on behalf of the Company or for the insufficiency or deficiency of title of any security in or upon which any of the moneys of the Company shall be invested, or for any loss, or damage arising from the bankruptcy, insolvency or tortious acts of any loss occasioned by any error of judgment or oversight on his part, or for any other loss, damage or misfortune whatever which shall happen in the execution of his duties of his office or in relation thereto, unless the same happens through his own willful act, neglect, default or dishonesty.

SECRECY CLAUSE

101. Every Director, manager, member of the committee, officer, servant, accountant or other Person employed in the business of the Company shall if so require by the Directors before entering upon his duties, sign a declaration pledging to observe a strict secrecy respecting all transactions of the Company with the customers and the state of accounts with individuals, matters relating



We the several persons whose names and addresses are subscribed, are desirous of being formed into a
 member of the Articles of Association, and we respectively agree to take the number of
 capital of the company set opposite our respective names.

No.	Name	CNIC No or passport No. in case of Foreign National	Father's Husband's Name	Usual residential address	Nationality ..	Business Occupation*** (if any)	Number of shares taken by each subscriber	Signature
1	Mr. Farhan Bin Qasim Limited (Incorporated in Mr. Farhan Bin Qasim Ltd)	N/A	N/A	73-Harley Street, Rawalpindi	Pakistani	N/A	99,991	
2	Mr. Farhan Bin Qasim Limited	137381- 0971027-1	(Mr. Farhan Bin Qasim)	H No 7, Street 7, Sector E, DHA-I, Islamabad	(Pakistani)	(Company Secretary-Fauji Fertilizer Bin Qasim Limited)		
3	Mr. Muhammad Mustafa Khan	37405- 0335009-3	Mr. Hakeem Sakshi Khan	H No 1, Street 9 Sector G, DHA-II Islamabad	Pakistani	MD-Fauji Foundation	01	
4	Mr. Muhammad Farooq Ashraf	61101- 1391783-1	Mrs. Muhammad Ashraf	H No 87, Executive Lodges, Phase III, Bahria Town, Rawalpindi	Pakistani	CE&MD-Fauji Fertilizer Bin Qasim Ltd	01	
5	Mr. Nazeem Abdullah Lodhi	36302- 0148967-7	Mr. Muhammad Ashraf Khan Lodhi	H No 1, Street 2-C, Sector B, DHA-I, Islamabad	Pakistani	CE&MD-Fauji Fertilizer Co Ltd	01	
6	Mr. Syarif Iqbal	37405- 0070894-3	Mr. Abdul Majid Qureshi	H No 652, D-Road Phase III, Bahria Town, Rawalpindi	Pakistani	Director-Fauji Foundation	01	
7	Mr. Nadeem Imam	37405- 0368100-1	Mrs. Inayatullah Khan	42 D, Tulsi Road, Lahore, Rawalpindi	Pakistani	Director-Fauji Foundation	01	
8	Syed Samad Shahid	61101- 1037143-9	Syed Shafiq Ali	H NO 09 EME College Sector F-14 Islamabad	Pakistani	Director-Fauji Foundation	01	
9	Mr. Gulam Ali	37405- 1261883-9	Mr. Gulam Ali	H No 79, Lane 5, Akhari II, Qasim Market, Rawalpindi	Pakistani	Director-Fauji Foundation	01	
10	Syed Amir Ali	61101- 0876014-9	Syed Latique Ali	H No 125, Street 42, F-10/4, Islamabad	Pakistani	GM-Fauji-Fauji Fertilizer Bin Qasim Ltd	01	
11	Mr. Hakeem Ahmed	42201- 8404532-9	Mr. Munir Ahmed	126 ST 6 Bahria Town Phase I Rawalpindi	Pakistani	General Manager (Technology) - Fauji Fertilizer Bin Qasim Ltd	01	
Total number of shares taken							100,000	

Witness National Institutional Facilitation Technologies Pvt Ltd, 5th Floor, AWT Plaza, I.I. Chundrigar Road,
 Karachi, Pakistan

Dated the 26 day of June 2014

DECLARED TO BE TRUE COPY

[Signature]
 18/5/17

Joint Registrar
 Company Registration Office Islamabad

ATTACHMENT III

**ANNUAL RETURNS OF COMPANY (AS PER SECTION
130 OF COMPANIES ACT)**

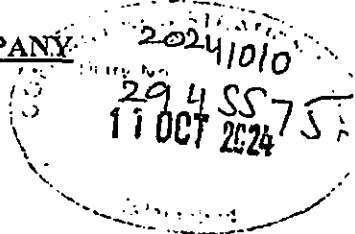


PUBLIC

Form-A

THE COMPANIES ACT, 2017
THE COMPANIES REGULATIONS, 2024
[Section 130(1), 130(2), 424(5) read with Regulations 62 & 30]

ANNUAL RETURN OF A COMPANY



PART-I

(To be filled by All Companies)

(Please complete in bold capital letters)

1.1 CUIN (Registration Number)

0 0 8 8 9 9 6

1.2 Name of the Company

FFBL POWER COMPANY LIMITED

1.3 Fee Payment Details

1.3.1 Challan No

1.3.2 Amount

1.4 Particulars of—		Please tick the relevant box
Part-II	Annual Return of a company other than inactive company	✓
Part-III	Annual Return of Inactive Company	

PART-II

(To be filled by an Active Company)

2.1 Annual General Meeting held on

dd	mm	yyyy
2 8	0 3	2 0 2 4

2.2 Form-A made up to (applicable in case no AGM was held/concluded during the year)

--	--	--	--	--	--	--	--

2.3 Registered office address

FFBL TOWER, PLOT NO C1&C2, SECTOR B, JINNAH BOULEVARD,
PHASE-II, DHA, ISLAMABAD ISLAMABAD ISLAMABAD ISLAMABAD
CAPITAL TERRITORY (I.C.T.) 44000, Rawalpindi, Islamabad, Punjab,
Pakistan

- 2.4 Email Address secretary@fpcl.com
- 2.5 Office Tel. No.
- 2.6 Mobile No. (Preferably WhatsApp enabled number) of authorized officer: (Chief Executive/ Director/ Company Secretary/ Chief Financial Officer) +92 3051779374

2.7 **Authorized Share Capital (If applicable)**

Classes and kinds of Shares	No. of Shares	Amount	Face Value
Ordinary Shares	900,000,000	9,000,000,000	10

2.8 **Paid up Share Capital (If applicable)**

Classes and kinds of Shares	No. of Shares	Amount	Face Value
Ordinary Shares	858,750,000	8,587,500,000	10

2.9 **Particulars of Officer(s) including Share Registrar**

S. No.	Name	Designation	CNIC No.	Address
1	Mr Arif ur Rehman	Chief Executive	421015449 9809	238, St No. 23, Block D, State Life Housing Society Phase I, Lahore Cantt, Pakistan
2	Mr Ali Siddiq	Company Secretary	353021977 8419	H No 90, St 11, Jinnah Abad, Abbottabad, Pakistan
3	Mr Shahid Saud UI	Chief Financial Officer	345015184 8747	HOUSE NO.54 , STREET NO.16, SECTOR G, DHA PHASE 2, ISLAMABAD
4	Mr. Muhammad Shafique	Legal Advisor	374051767 2129	DG-1. Midcity Apartments, Fazala Colony Service Road Islamabad., Pakistan
5	A.F Ferguson & Co.	Auditor		74 East Jinnah Ave, Block G G 7/3

	Chartered Accountants			Blue Area, Islamabad
6		Any Other Officer		
7		Share Registrar (if applicable)		

2.10 List of Directors as on the date up to which this Form is made.

S#	Name	Residential Address	Nationality	CNIC No. for Pakistanis, or NICOP No. for Overseas Pakistanis, or Passport No. for foreigners	Date of appointment or election	Name of member or creditor nominating or appointing the director
1	Syed Bakhtiyar Kazmi	House NO 126-B, Street 37, F10/ 1, Islamabad, Islamabad Urban, Islamabad, Islamabad Capital Territory, Pakistan	Pakistan	6110121692 453	26-03- 2024	
2	Mr Arif ur Rehman	238, St No 23, Block D, State Life Housing Society Phase I, Lahore Cantt, Pakistan	Pakistan	4210154499809	25-03-2024	
3	Mr. Muhammad Tariq	House 317, Street 20, G11/2, Islamabad, Pakistan	Pakistan	1730113856 517	25-03- 2024	

4	Mr. Aziz Ikram	Army Officers Coloney St 5, Morgah , H#114, Rawalpindi Cantt., Pakistan	Pakistan	3740567744 925	25-03- 2024	
5	Mr. Qamar Haris Manzoor	House # 150/1, St 6, Khayaban Bukhari, DHA Phase 6, Karachi., Pakistan	Pakistan	4230110773 227	25-03- 2024	
6	Mr. Khurram Shahzad Khan	H. No. D601, Satellite Town, Rawalpindi ., Pakistan	Pakistan	6110119717 291	25-03- 2024	
7	Mr. Muhammad Junaid	DHA Phase 2, House No 21, Street No 15, Sector E Islamabad, Pakistan	Pakistan	3320233552697	25-03- 2024	
8	Mr. Waqar Ahmed Malik	Phase 8, House No 139, St No 29, Mohalla h Khayaban Qasim, DHA Karachi (South) , Pakistan	Pakistan	352014017 2419	25-03- 2024	
9	Mr Sarfaraz Ahmed Rehman	A-703 CREEK VISTA APARTMENTS ,	Pakistan	352019515 7093	25-03- 2024	

		DHAVIII, KARACHI				
--	--	---------------------	--	--	--	--

2.11 List of members/shareholders & debenture holders on the date up to which this Form is made.

#	Folio # (If any)	Name*	Address	Nationality	No. of shares / debentures held (Applicable in case of companies having share capital)	Percentage of shareholding of member having 25% or more shareholding (Applicable in case of companies having share capital)	CNIC No. for Pakistanis, or NICOP No. for Overseas Pakistanis, or Passport No. for foreigners, or CUIN No. for Pakistani company, or Registration No. for foreign company.
Shareholders/members							
1		Mr Arif ur Rehman	238, St No. 23, Block D, State Life Housing Society Phase I, Lahore Cantt, Pakistan	Pakistan	1	0.0	421015449 9809
2		Mr. Aziz Ikram	Army Officers Colony St 5, Morgah, H#114, Rawalpindi Cantt., Pakistan	Pakistan	1	0.0	374056774 4925
3		Mr. Waqar Ahmed Malik	Phase 8, House No 139, St No	Pakistan	1	0.0	

			29, Mohallah Khayaban Qasim, DHA Karachi (South), Pakistan				352014017 2419
4		Mr. Qamar Haris Manzo or	House # 150/1, St 6, Khayab an Bukhari , DHA Phase 6, Karachi., Pakista n	Pakistan	1	0.0	423011077 3227
5		Mr. Khurram Shahzad Khan	H. No. D- 601, Satellite Town, Rawalpindi , Pakistan	Pakistan	1	0.0	611011971 7291
6		Mr Sarfaraz Ahmed Rehman	A-703 CREEK VISTA APART MENTS, DHAVIII, KARACHI	Pakistan	1	0.0	352019515 7093
7		Muhammad Tariq	House 317, Street 20, G11/2, Islamab ad, Islamab ad Urban, Islamab ad, Islamabad Capital	Pakistan	1	0.0	173011385 6517

			Territory, 44000, Pakistan				
8		Muhammad Junaïd	DHA Phase 2, House No 21, Street No 15, Sector E Islamabad, Islamabad Urban, Islamabad, Islamabad Capital Territory, 44000, Pakistan		1	0.0	332023355 2697
9		Syed Bakhtiyar Kazmi	House NO 126-B, Street 37, F10/ 1, Islamabad, Islamabad Urban, Islamabad, Islamabad Capital Territory, 440000, Pak		1	0.0	611012169 2453
10		Fauji Foundation			214687500	25.0	1234
11		Fauji Fertilizer Bin Qasim Limited			644062491	75.0	876542111 2825
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.

* In case the member or debenture holder is holding interest or exercising voting or control rights in the company 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.

2.12 Transfer of shares/ debentures since last Form-A was made (Applicable for companies having share capital)

S#	Name of Transferor	Name of Transferee	Number of shares transferred	Date of registration of transfer
	Shareholders			
1	Mr. Abid Rafique	Muhammad Tariq	1	27-12-2023
2	Dr. Nadeem Inayat	Muhammad Junaid	1	27-12-2023
3	Syed Atif Ali	Syed Bakhtiyar Kazmi	1	26-03-2024
	Debenture holders			

PART-III

(To be filled by an Inactive Company)

3.1 Correspondence Address

3.2 Contact Details

3.3 List of Directors and members as on the date this Form is made.

S#	Name	Residential Address	Nationality	No. of shares held (if any)	CNIC # for Pakistanis, or NICOP # for Overseas Pakistanis, or Passport # for foreigners	Date of becoming member/director	Name of member or creditor nominating/ appointing the director
1							
2							

3							
---	--	--	--	--	--	--	--

- 3.4 Confirmation about inactive status of Company
- It is hereby stated and confirmed that the Company has:
- (i) not carried out any operation since grant of status as an inactive company;
 - (ii) no substantial assets or Accounting transactions;

Declaration:

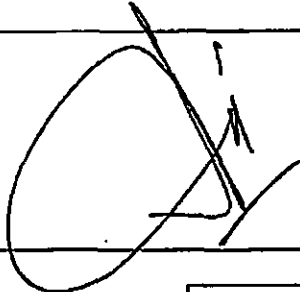
3.5 I do hereby solemnly and sincerely declare that the information provided in the form and the enclosures is:

- (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.

3.6 Name of Authorized Officer with designation/Authorized Intermediary (if appointed)

Ali Siddiq	"Secretary"
------------	-------------

3.7 Signatures


--

3.8 Registration No of Authorized Intermediary, if applicable

--

3.9 Date

Day		Month		Year			
1	0	9	0	2	0	2	4

INSTRUCTIONS FOR FILLING THIS FORM

1. This Form shall be made up to the date of last AGM of the Company or the last date of the calendar year where no AGM is held/concluded during the year.
2. If shares are of different classes the columns should be subdivided, so that the number of each class held, is shown separately against S. No. 2.7 and 2.8

3. If space provided is insufficient, the required information should be listed in a separate sheet attached to this return which should also be signed.
4. This form is to be filed within 30 days of the date indicated in Sr. No. 2.1 or 2.2 (as the case may be). If the form is filed after 30 days, additional fee as per section 468 shall be applicable.
5. An inactive company or a company which held its AGM but the same was not concluded shall file Form-A within a period of 30 days from the close of calendar year.
6. This form is not applicable on single member companies & private companies having paid-up capital not exceeding 3.0 million in case there is no change of particulars since last annual return filed with the registrar.
7. A company, other than a single member company or a private company having paid up capital of not more than three million rupees, shall inform the registrar on Form-24 that there is no change of particulars in the last annual return filed with the registrar.
8. Original challan or other evidence of payment of fee specified in Seventh Schedule of the Act will be submitted with this form (not applicable in case of online filing)

DECLINED

ATTACHMENT IV

SHARE-HOLDING PATTERN

FFBL POWER COMPANY LIMITED			
SHAREHOLDING AS AT 02-JUNE-2025			
SR. NO	NAME	HOLDING	%AGE
1	FFC LTD	644,062,491	75.00
2	FAUJI FOUNDATION	214,687,500	25.00
3	LT GEN ANWAR ALI HYDER HI (M) (RETD)	1	0.00
4	MR. JAHANGIR PIRACHA	1	0.00
5	MR. QAMAR HARIS MANZOOR	1	0.00
6	MAJ GEN AMJAD AHMED BUTT, HI (M) (RETD)	1	0.00
7	SYED BAKHTIYAR KAZMI	1	0.00
8	MAJ GEN MUHAMMAD ZAFAR IQBAL , HI(M), TI(M) (RETD)	1	0.00
9	MR. MAZHAR ABBAS HASNANI	1	0.00
10	MR. MUHAMMAD TARIQ	1	0.00
11	MR AZIZ IKRAM	1	0.00
	TOTAL	858,750,000	100


Lt Col Ali Siddiq (Retd)
Company Secretary

Lt Col Ali Siddiq (Retd)
Company Secretary
FFBL Power Company Limited
FFBL Tower C1/C2, Sector-B
Jinnah Boulevard, DHA Phase-II, Islamabad



ATTACHMENT V(A)

**EVIDENCE OF CASH BALANCES HELD IN RESERVE BY
APPLICANT, ALONG WITH BANK CERTIFICATES**



you first

Date: 17 APR 2025

TO WHOM IT MAY CONCERN

This is to certify that FFBL POWER COMPANY LIMITE holding GRP# 2646023 is maintaining an account in United Bank Limited.

Title of Account	: FFBL POWER COMPANY LIMITED
IBAN	: PK52UNIL0109000224798905
Account No	: 224798905
Type of Account	: BUSINESS PARTNER PLUS
Type of Currency	: PKR
Account Opening Date	: 17-SEP-15
Branch Code & Name	: 1133-PASMIC, KARACHI
Available Balance as of Date(16-APR-2025)	: 20,000.00 PKR

Regards

Authorized Signatory

Authorized Signatory

This Certificate has been issued on a specific request of the customer without any risk or responsibility on bank or any of its officials.

HBL

HABIB BANK

حیب بینک

APRIL 18, 2025

FMBI POWER COMPANY LIMITED.
73 HARLEY STREET HARLEY STREET
RAWALPINDI
RAWALPINDI


Dear Customer,

Balance Certificate

We hereby certify that the following account is being maintained
at CORPORATE CENTER Branch.

Account type : HBL-DAILY PROGRESSIVE ACCOUNT
Account number : 01557900150301

We further certify that the balance in the subject account at close of
business on APRIL 17, 2025 stood at CREDIT PKR *****10,010,955.62
(Rupees Ten Million Ten Thousand Nine Hundred Fifty Five and Paisas
Sixty Two)



Zaheer Abbas
Manager Operation RA # 809572
HBL Corporate Centre Branch
Rawalpindi Cantt (0155)

Yours Sincerely

MANAGER

Issue Date: Apr 17, 2025

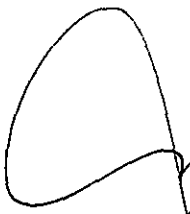
ACCOUNT BALANCE CERTIFICATE

This is to certify that Mr. /Mrs. FFBL POWER COMPANY LIMITED bearing CNIC 43024815 is maintaining Saving Account number PK39ASCM0001751480000386, titled FFBL POWER COMPANY LIMITED with Askari Bank Limited, DHA Phase II, Islamabad since Jan 21, 2021.

The closing balance of the above account no as on 17-Apr-2025 is PKR 3496727.06/- (Three million Four Hundred Ninety-Six thousand Seven Hundred Twenty-Seven Only).

This certificate is issued at the specific request of the customer without any risk, obligations and responsibility on the part of Askari Bank Limited.


Authorised Signature
AskariBank
FFBL Tower Sub Branch LIMITED
DHA Phase II, Islamabad


Authorised Signature
AskariBank
FFBL Tower Sub Branch LIMITED
DHA Phase II, Islamabad

ATTACHMENT V(B)

DETAILS OF CHARGES OR ENCUMBRANCES ATTACHED TO THE APPLICANT'S ASSETS, IF ANY

FFBL POWER COMPANY LIMITED (FPCL)

Statement of Charges and Encumbrances Attached to the Applicant's Assets

In compliance with Regulation 3(4)(d)(ii) of the NEPRA Licensing (Application and Modification Procedure) Regulations, FFBL Power Company Limited hereby declares that, as of the date of this Petition, there are no charges, liens, pledges, mortgages, or any other form of encumbrance on its assets, and all assets intended for use in the electric power supply operations are free from any legal, financial, or contractual obligations that would restrict or impair their usage for the purposes of the licensed activity.

ATTACHMENT V(C)

**LATEST AUDITED FINANCIAL STATEMENTS OF THE
APPLICANT**



A.F. FERGUSON & CO

INDEPENDENT AUDITOR'S REPORT

To the members of FFBL Power Company Limited

Report on the Audit of the Financial Statements

Opinion

We have audited the annexed financial statements of FFBL Power Company Limited (the Company), which comprise the statement of financial position as at December 31, 2024, and 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 material accounting policy information 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 the statement of cash flows together with the notes forming part thereof conform with the accounting and reporting standards as applicable in Pakistan and give the information required by the Companies Act, 2017 (XIX of 2017), in the manner so required and respectively give a true and fair view of the state of the Company's affairs as at December 31, 2024 and of the profit and other comprehensive income, the changes in equity and its cash flows for the year then ended.

Basis for Opinion

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

Other Matter

The financial statements of the Company for the year ended December 31, 2023, were audited by another auditor who expressed an unmodified opinion on those financial statements dated February 20, 2024.

A. F. FERGUSON & CO., Chartered Accountants, a member firm of the PwC network
74-East, 2nd Floor, Blue Area, Jinnah Avenue, P.O.Box 3021, Islamabad-44000, Pakistan
Tel: +92 (51) 2273457-60/2604934-37; Fax: +92 (51) 2277924; <www.pwc.com/pk>

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

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

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

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

Responsibilities of Management and Board of Directors for the Financial Statements

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

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

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

Auditor's Responsibilities for the Audit of the Financial Statements

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

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

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

SAJID

- 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 auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

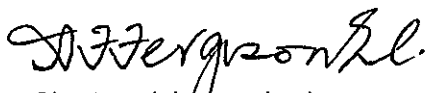
We communicate with the board of directors regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on Other Legal and Regulatory Requirements

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

- (a) proper books of account have been kept by the Company as required by the Companies Act, 2017 (XIX of 2017);
- (b) the statement of financial position, the statement of 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).

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


Chartered Accountants
Islamabad
Date: February 19, 2025
UDIN: AR202410083eGg0fJUxt

FFBL POWER COMPANY LIMITED
STATEMENT OF FINANCIAL POSITION
AS AT DECEMBER 31, 2024

	Note	2024 Rupees '000	2023 Rupees '000
ASSETS			
NON CURRENT ASSETS			
Property, plant and equipment	4	23,482,398	24,241,241
Intangible assets	5	6,344	2,398
Long term investment	6	3,737,906	4,085,621
		27,226,648	28,329,260
CURRENT ASSETS			
Stores and spares		1,335,747	1,075,839
Stock in trade	7	2,132,117	2,488,766
Trade debts	8	3,765,628	4,615,411
Loans, advances, prepayments and other receivables	9	795,078	604,608
Income tax refundable	10	273,607	287,611
Cash and bank balances	11	2,355,776	2,869,992
		10,657,953	11,942,227
TOTAL ASSETS		37,884,601	40,271,487
EQUITY AND LIABILITIES			
EQUITY AND RESERVES			
Share capital	12	8,587,500	8,587,500
Capital reserve - Acquisition reserve		(452,059)	-
Revenue reserve - Accumulated profits		19,510,123	12,005,055
		27,645,564	20,592,555
NON-CURRENT LIABILITIES			
Long term finance facilities	13	-	8,845,429
Deferred employee benefit	14	204,594	190,607
Deferred taxation	15	732,516	687,998
		937,110	9,724,034
CURRENT LIABILITIES			
Current portion of long term finance facilities	13	-	3,341,949
Short term borrowings	16	7,063,665	5,536,840
Trade and other payables	17	2,222,490	1,052,041
Contract liabilities	18	15,772	24,068
		9,301,927	9,954,898
TOTAL EQUITY AND LIABILITIES		37,884,601	40,271,487
CONTINGENCIES AND COMMITMENTS			
	19		

The annexed notes 1 to 36 form an integral part of these financial statements.

[Signature]

CHAIRMAN

CHIEF EXECUTIVE

DIRECTOR

CHIEF FINANCIAL OFFICER

FFBL POWER COMPANY LIMITED
STATEMENT OF PROFIT OR LOSS AND OTHER COMPREHENSIVE INCOME
FOR THE YEAR ENDED DECEMBER 31, 2024

	Note	2024 Rupees '000	2023 Rupees '000
Revenue - net	20	29,506,821	28,057,476
Cost of sales	21	(21,794,247)	(20,017,128)
Gross profit		7,712,574	8,040,348
Insurance claim	20.4	2,390,122	869,495
Gross profit after insurance claim		10,102,696	8,909,843
Administrative expenses	22	(169,186)	(152,980)
Other operating expenses	23	(437,918)	(287,155)
Operating profit		9,495,592	8,469,708
Other income	24	615,983	71,153
Finance cost	25	(2,509,261)	(4,213,765)
Finance income	24	73,937	14,377
Net finance cost		(2,435,324)	(4,199,388)
Share of profit from associate	6	104,192	118,184
Profit before taxation		7,780,443	4,459,657
Taxation	26	(276,904)	(441,010)
Profit for the year		7,503,539	4,018,647
Other comprehensive income / (loss)			
Items that will not be reclassified to profit or loss			
Share of other comprehensive income / (loss) from associate	6	153	(32,563)
Related deferred tax		(38)	8,141
		115	(24,422)
Remeasurement gain on employees' retirement benefit plan		1,498	2,249
Related deferred tax		(84)	-
		1,414	2,249
Total comprehensive income for the year		7,505,068	3,996,474

The annexed notes 1 to 36 form an integral part of these financial statements.

[Signature]

CHAIRMAN

[Signature]

CHIEF EXECUTIVE

[Signature]

DIRECTOR

[Signature]

CHIEF FINANCIAL OFFICER

FFBL POWER COMPANY LIMITED
STATEMENT OF CHANGES IN EQUITY
FOR THE YEAR ENDED DECEMBER 31, 2024

	Issued, subscribed and paid up capital	Capital reserve - Acquisition reserve	Revenue reserve - Accumulated profits	Total
	Rupees '000			
Balance as at January 1, 2023	8,587,500	-	11,008,581	19,596,081
Total comprehensive income for the year				
Profit for the year	-	-	4,018,647	4,018,647
Other comprehensive loss for the year	-	-	(22,173)	(22,173)
	-	-	3,996,474	3,996,474
Transactions with owners of the Company - Distribution				
First interim dividend - quarter ended March 31, 2023 (@ Rs. 1.747 per share)	-	-	(1,500,000)	(1,500,000)
Second interim dividend - quarter ended June 30, 2023 (@ Rs. 1.747 per share)	-	-	(1,500,000)	(1,500,000)
	-	-	(3,000,000)	(3,000,000)
Balance as at December 31, 2023	8,587,500	-	12,005,055	20,592,555
Balance as at January 1, 2024	8,587,500	-	12,005,055	20,592,555
Total comprehensive income for the year				
Profit for the year	-	-	7,503,539	7,503,539
Other comprehensive income for the year	-	-	1,529	1,529
	-	-	7,505,068	7,505,068
Share in acquisition reserve of Fauji Foods Limited	-	(452,059)	-	(452,059)
Balance as at December 31, 2024	8,587,500	(452,059)	19,510,123	27,645,564

The annexed notes 1 to 36 form an integral part of these financial statements.

S. A. Rizvi

CHAIRMAN

CHIEF EXECUTIVE

DIRECTOR

CHIEF FINANCIAL OFFICER

FFBL POWER COMPANY LIMITED
STATEMENT OF CASH FLOWS
FOR THE YEAR ENDED DECEMBER 31, 2024

		2024	2023
	Note	Rupees '000	Rupees '000
CASH FLOWS FROM OPERATING ACTIVITIES			
Profit before tax		7,780,443	4,459,657
Adjustments for:			
Depreciation	4.6	1,164,307	1,099,213
Share of profit from associate	6.2	(104,192)	(118,184)
Provision for staff retirement benefits		65,965	55,192
Provision for workers' profit participation fund and workers welfare fund		368,258	232,915
Finance cost	25	2,509,261	4,213,765
(Gain) / Loss on sale of fixed assets	24	(528,612)	569
Operating cashflows before working capital changes		3,474,987	5,483,470
		11,255,430	9,943,127
Changes in			
Stores and spares		(259,908)	(348,358)
Stock in trade		356,649	229,870
Trade debts		849,783	7,872,294
Advances, prepayments and other receivables		(190,470)	205,979
Trade and other payables		1,022,632	(3,282,894)
		1,778,686	4,676,891
Cash generated from operations		13,034,116	14,620,018
Gratuity paid		(21,183)	(22,702)
Leave encashment paid		(25,042)	(20,235)
Workers' profit participation fund paid		(223,941)	(221,799)
Income tax paid		(227,554)	(227,754)
Net cash generated from operating activities		12,536,396	14,127,528
CASH FLOWS FROM INVESTING ACTIVITIES			
Additions to capital work in progress	4	(362,117)	(613,366)
Purchase of operating fixed assets	4	(135,538)	(54,044)
Disposal of fixed assets	4	616,857	9,396
Investment in associate company		-	(4,000,000)
Net cash generated from / (used in) investing activities		119,202	(4,658,014)
CASH FLOWS FROM FINANCING ACTIVITIES			
Long term loan received	13	-	4,000,000
Long term loan repayments made	13	(12,242,785)	(3,150,594)
Dividend paid		-	(3,000,000)
Finance cost paid		(2,453,854)	(4,170,923)
Net cash used in financing activities		(14,696,639)	(6,321,517)
Net increase in cash and cash equivalents during the year		(2,041,041)	3,147,997
Cash and cash equivalents at beginning of the year		(2,666,848)	(5,814,845)
Cash and cash equivalents at end of the year	11.4	(4,707,889)	(2,666,848)

The annexed notes 1 to 36 form an integral part of these financial statements.

[Signature]

CHAIRMAN

CHIEF EXECUTIVE

DIRECTOR

CHIEF FINANCIAL OFFICER

FFBL POWER COMPANY LIMITED
NOTES TO THE FINANCIAL STATEMENTS
FOR THE YEAR ENDED DECEMBER 31, 2024

1 STATUS AND NATURE OF BUSINESS

1.1 FFBL Power Company Limited (the Company) is a public limited company incorporated on June 27, 2014 in Pakistan under the repealed Companies Ordinance, 1984 (now Companies Act 2017). The Company is a subsidiary of Fauji Fertilizer Company Limited (the Parent Company / FFC) and the ultimate parent is Fauji Foundation (FF). The Company has been established to build, own and operate a 118 Megawatt coal based power generation facility at Port Qasim Karachi. The Company sells electricity produced to its parent company, Fauji Fertilizer Company Limited (48 Megawatt) and K-Electric Limited (K-Electric) (52 Megawatt) under a Power Purchase Agreement (PPA) having a period of 30 years. The Company also sells steam produced from the facility to FFC, under a Steam Supply Agreement (SSA) with a term of 30 years. The Company commenced its commercial operations on May 19, 2017.

- The geographical location and address of the Company's business units, including plant is as under:
- The registered office of the Company is situated at FFC Sona Tower, Plot No. C1&C2, Sector B, Jinnah Boulevard, Phase II, DHA, Islamabad.
- The Company's land (measuring 100 acres) and power generation facility are located at FFC Complex, P-1/EZ-1/ Eastern Zone, Bin Qasim, Karachi.

1.2 National Electric Power Regulatory Authority (NEPRA) awarded reference tariff for supply of electricity to K-Electric Limited (KE) to the Company vide decision dated December 29, 2015 in response to Power Acquisition Request filed by KE. The reference tariff upon Commercial Operations Date was subsequently revised by NEPRA vide its decision dated February 09, 2022.

1.3 The Company holds 15.87% equity of Fauji foods Limited (FFL), representing 400 million ordinary shares of Rs. 10 each, acquired at a par value of Rs. 10 per share. FFL is principally engaged in processing and sale of toned milk, milk powder, fruit juices, allied dairy and food products. The head office of FFL is situated at 42 CCA, Ex Park View, DHA Phase-VIII, Lahore.

1.4 During the current year, the former parent i.e. Fauji Fertilizer Bin Qasim Limited (FFBL) of the Company has merged into FFC.

2 BASIS OF PREPARATION

2.1 Statement of compliance

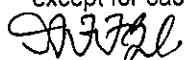
These financial statements have been prepared in accordance with the accounting and reporting standards as applicable in Pakistan. The accounting and reporting standards applicable in Pakistan comprise of;

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

Where provisions of and directives issued under the Companies Act, 2017 differ from the IFRS, 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. The financial statements, except for cash flow information, have been prepared under the accrual basis of accounting.



2.3 Functional and presentation currency

These financial statements of the Company are presented in Pak Rupees, which is the Company's functional currency. All amounts have been rounded to the nearest Thousand Rupee, unless otherwise indicated.

2.4 Significant accounting judgements and assumptions

The preparation of financial statements in conformity with the accounting and reporting standards requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

Information about significant areas of estimation, uncertainty and critical judgments in applying accounting policies that have the most significant effect on the amounts recognized in the financial statements are discussed in the ensuing paragraphs.

2.4.1 Useful life and residual value of property, plant and equipment

The Company reviews the useful lives and residual value of property, plant and equipment on a regular basis. Any change in estimates in future years might affect the carrying amounts of the respective items of property, plant and equipment with a corresponding effect on the depreciation charge, impairment and deferred tax.

2.4.2 Right of use asset

Right-of-use assets are generally depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis. If the Company is reasonably certain to exercise a purchase option, the right-of-use assets are depreciated over the underlying assets' useful life.

2.4.3 Provision for Taxation

The Company takes into account the current income tax laws and decisions taken by the taxation authorities. Instances where the Company's view differs from the income tax department at the assessment stage and where the Company considers that its view on items of material nature is in accordance with law, the amounts are shown as contingent liabilities.

2.4.4 Measurement of Expected credit losses (ECL)

The measurement of the expected credit loss ("ECL") allowance for financial assets measured at amortised cost is an area that requires the use of complex models and significant assumptions about future economic conditions and credit behavior (e.g. the likelihood of customers defaulting and the resulting losses).

Elements of the ECL models that are considered accounting judgments and estimates include development of ECL models, including the various formulas and choice of inputs, determining the criteria if there has been a significant increase in credit risk and so allowances for financial assets should be measured on a lifetime ECL basis and the qualitative assessment. The Company has assessed ECL on its financial assets and determined that amount is immaterial to the financial statements accordingly, ECL has not been recorded.

Signature

2.4.5 Provision for inventory obsolescence

The Company reviews the net realizable value of stock in trade and stores and spares to assess any diminution in the respective carrying values. Net realizable value is determined with reference to estimated selling price less estimated cost to complete and estimated cost to make the sales.

2.4.6 Provisions

A provision is recognized in the statement of financial position when the Company has a legal or constructive obligation as a result of a past event, and it is probable that an outflow of economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of obligation. Provisions are determined by discounting the expected future cash flows at a pre tax discount rate that reflects current market assessment of time value of money and risk specific to the liability. Provisions are reviewed at each reporting date and are adjusted to reflect the current best estimate.

2.4.7 Contingent liabilities

A contingent liability is disclosed when the Company has a possible obligation as a result of past events, whose existence will be confirmed only by the occurrence or non-occurrence, of one or more uncertain future events not wholly within the control of the Company; or the Company has a present legal or constructive obligation that arises from past events, but it is not probable that an outflow of resources embodying economic benefits will be required to settle the obligation, or the amount of the obligation cannot be measured with sufficient reliability.

2.4.8 Revenue

Revenue against pass through components of tariff is recognized on provisional basis using estimates based on prevailing market rates. The difference between billed and actual amounts of pass through items is later on adjusted by issuance of debit / credit notes.

2.5 Standards, interpretations and amendments to approved accounting standards that are not yet effective

2.5.1 There are certain amendments and interpretations to the accounting and reporting standards which are mandatory for the Company's accounting period which began on January 1, 2024. However, these do not have any significant impact on the Company's financial statements.

2.5.2 Standards, amendments and interpretations to existing standards that are not yet effective and have not been early adopted by the Company:

Effective date (annual reporting periods beginning on or after)

IAS 21	Lack of Exchangeability	January 1, 2025
IAS 7	Statement of Cash Flows (Amendments)	January 1, 2025
IAS 21	The Effects of changes in Foreign Exchange Rates (Amendments)	January 1, 2025
IFRS 7	Financial Instruments: Disclosures and its accompanying Guidance on Implementing IFRS 7 (Amendments)	January 1, 2026
IFRS 17	Insurance Contracts	January 1, 2026

SA 7761

Effective date (annual reporting periods beginning on or after)

IFRS 9 & IFRS 7	Financial Instruments – Classification and Measurement of Financial Instruments (Amendments)	January 1, 2026
IFRS 10	Consolidated Financial Statements	January 1, 2026
IFRS 9	Financial Instruments	January 1, 2026
IFRS 1	First-time Adoption of International Financial Reporting Standards	January 1, 2026
IFRS 18	Presentation & Disclosure in Financial Statement	January 1, 2027

2.5.3 The above standards, amendments to approved accounting standards and interpretations are not likely to have any material impact on the Company's financial statements.

Other than the aforesaid standards, interpretations and amendments, International Accounting Standards Board (IASB) has also issued the following standards and interpretation, which have not been notified locally or declared exempt by the Securities and Exchange Commission of Pakistan (SECP) as at December 31, 2024;

IFRS 1	First-time Adoption of International Financial Reporting Standards
IFRIC 12	Service Concession Arrangement
IFRS 18	Presentation and Disclosures in Financial Statements
IFRS 19	Subsidiaries without Public Accountability: Disclosures
IFRIC 4	Determining whether an arrangement contains a lease

3 MATERIAL ACCOUNTING POLICY INFORMATION

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

3.1 Taxation

Current tax

The profits and gains of the Company derived from electric power generation are exempt from tax in terms of Clause (132) of Part I of the Second Schedule to the Income Tax Ordinance, 2001 (ITO), subject to the conditions and limitations provided therein. Under clause (11A) of Part IV of the Second Schedule to the ITO, the Company is also exempt from levy of minimum tax on 'turnover' under section 113 of the ITO to the extent of receipts from sale of electricity. Minimum tax under section 113 and Alternate Corporate Tax under section 113C of ITO is leviable on sale of coal and steam.

However, full provision is made in the profit and loss account on income from sources not covered under the above clauses at current rates of taxation after taking into account, tax credits and rebates available, if any.

Deferred tax

Deferred tax is recognized using the balance sheet method, providing for temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes. Deferred tax is not recognized for the following temporary differences;

- The initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss;
- Differences relating to investments in jointly controlled entities to the extent that it is probable that they will not reverse in the foreseeable future;
- Taxable temporary differences arising on the initial recognition of goodwill.

Signature

Deferred tax assets are recognized for unused tax losses, unused tax credits and deductible temporary differences to the extent it is probable that future taxable profits will be available against which they can be realised. Future taxable profits are determined based on business plans for the Company and the reversal of temporary differences. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized; such reductions are reversed when the probability of future taxable profits improves. Unrecognized deferred tax assets are reassessed at each reporting date and recognized to the extent that it has become probable that future taxable profits will be available against which they can be used on the reporting date.

Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, using tax rates enacted or substantially enacted at the reporting date. The measurement of deferred tax reflects the tax consequences that would follow from the manner in which the Company expects, at the reporting date, to recover or settle the carrying amount of its assets and liabilities. Deferred tax assets and liabilities are offset if criteria as per applicable financial reporting framework is met.

3.2 Leases

Right of use asset

The Company recognises right-of-use assets at the commencement date of the lease i.e. the date the underlying assets are available for use. Right-of-use assets are measured at cost less any accumulated depreciation and impairment losses and are adjusted for any remeasurement of lease liabilities.

- The amount of the initial measurement of lease Liabilities
- Any lease payments made at or before the commencement date less any lease incentives received any initial direct costs, and
- Restoration costs.

Right-of-use assets are generally depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis. If the Company is reasonably certain to exercise a purchase option, the right-of-use assets are depreciated over the underlying assets' useful life.

Lease liability

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or if that rate cannot be readily determined, the Company's incremental borrowing rate. Lease payments in the measurement of the lease liability comprise the following:

- Fixed payments, including in-substance fixed payments;
- Variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- Amounts expected to be payable under a residual value guarantee;
- The exercise price under a purchase option that the Company is reasonably certain to exercise,
- Lease payments in an optional renewal period if the Company is reasonably certain to exercise an extension option; and
- Penalties for early termination of a lease unless the Company is reasonably certain not to terminate early.

The lease liability is measured at amortised cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Company's estimate of the amount expected to be payable under a residual value guarantee, or if the Company changes its assessment of whether it will exercise a purchase, extension or termination option. When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

Signature

3.3 Property, plant and equipment

Property, plant and equipment except for capital work in progress are stated at cost less accumulated depreciation and impairment losses, if any. Capital work in progress are stated at cost less allowance accumulated for impairment, if any. Cost of property, plant and equipment includes acquisition cost, borrowing cost during construction phase of relevant asset, if any and other directly attributable costs.

Depreciation is charged to statement of profit or loss on the straight line method so as to write off the depreciable amount of the property, plant and equipment over their estimated useful lives at the rates specified in note 4. Depreciation on additions is charged for the full month in which an asset is available for use and on disposals up to the month immediately preceding the disposals. Gains or losses on disposals are taken to the profit and loss account.

The cost of replacing a major item of property, plant and equipment is recognized in the carrying amount of the item if it is probable that the future economic benefits embodied within the item will flow to the Company and its cost can be measured reliably. The carrying amount of the replaced item is derecognized. The cost of the day to day servicing of property, plant and equipment are recognized in statement of profit or loss as incurred.

Gains and losses on disposal of an item of property, plant and equipment are determined by comparing the proceeds from disposals with the carrying amount of property, plant and equipment and are recognised in the statement of profit or loss.

Capital work-in-progress is stated at cost less accumulated impairment losses, if any. It consists of expenditure incurred and advances made in respect of operating fixed assets, capital stores and intangibles assets in the course of their acquisition, construction and installation. Transfers from capital work in progress are made to the relevant category of property, plant and equipment as and when the assets are available for use in the manner intended by the Company's management.

3.4 Impairment

(i) Non-derivative financial assets

The Company recognises loss allowances for Expected Credit Losses (ECLs) on financial assets measured at amortised cost. The maximum period considered when estimating ECLs is the maximum contractual period over which the Company is exposed to credit risk.

The Company measures loss allowances at an amount equal to lifetime ECLs.

When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, the Company considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Company's historical experience and informed credit assessment including forward-looking information.

The Company assumes that the credit risk on a financial asset has increased significantly if it is more than 60 days past due.

The Company considers a financial asset to be in default when:

- the counter party is unlikely to pay its credit obligations to the Company in full, without recourse by the Company to actions such as realising security (if any is held); or
- the financial asset is more than 60 days past due.

Lifetime ECLs are the ECLs that result from all possible default events over the expected life of a financial asset.

SAJZL

12-month ECLs are the portion of ECLs that result from default events that are possible within the 12 months after the reporting date (or a shorter period if the expected life of the instrument is less than 12 months).

Measurement of ECLs

Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the Company expects to receive).

Credit-impaired financial assets

At each reporting date, the Company assesses whether financial assets carried at amortised cost are credit impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Evidence that a financial asset is credit-impaired includes the following observable data:

- significant financial difficulty of the counterparty;
- a breach of contract such as a default or being more than 60 days past due;
- the restructuring of a loan or advance by the Company on terms that the Company would not consider otherwise;
- it is probable that the counterparty will enter bankruptcy or other financial reorganisation; or
- the disappearance of an active market for a security because of financial difficulties.

Presentation of allowance for ECL in the statement of financial position

Loss allowances for financial assets measured at amortised cost are deducted from the carrying amount of the assets and charged to profit or loss.

Write-off

The gross carrying amount of a financial asset is written off when the Company has no reasonable expectations of recovering a financial asset in its entirety or a portion thereof. The Company individually makes an assessment with respect to the timing and amount of write-off based on whether there is a reasonable expectation of recovery. The Company expects no significant recovery from the amount written off. However, financial assets that are written off could still be subject to enforcement activities in order to comply with the Company's procedures for recovery of amounts due.

(ii) Non-financial assets

At each reporting date, the Company reviews the carrying amount of its non-financial assets (other than inventories and deferred tax assets) to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated.

For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or cash generating units (CGUs).

The recoverable amount of an asset or CGU is greater of its value in use and its fair value less costs to sell. Value in use is based on the estimated future cash flows, discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU. An impairment loss is recognized if the carrying amount of an asset or CGU exceeds its recoverable amount.

St. Z. 2020

Impairment losses are recognized in profit or loss. They are allocated first to reduce the carrying amounts of any goodwill allocated to CGU, and then to reduce the carrying amounts of the other assets in the CGU on a pro rata basis. An impairment loss in respect of goodwill is not reversed. For other assets, an impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

3.5 Intangibles

Intangible assets are measured initially at cost and subsequently stated at cost less accumulated amortization and impairment losses, if any. Amortization charge is based on straight-line at the rate specified in note 5 to the financial statements.

3.6 Investment in Associate Company

Investments in associate where significant influence can be established are accounted for using the equity method. Under this method, the investments are stated at cost plus the Company's equity in undistributed earnings and losses after acquisition, less any impairment in the value of individual investment.

Income on investments in associate is recognised using the equity method. Under this method, the Company's share of post-acquisition profit or loss of the associate is included in profit or loss, its share of post-acquisition other comprehensive income or loss is included in other comprehensive income and its share of post-acquisition movements in reserves is recognised in reserves. These amounts are adjusted to reflect adjustments made by the Company when using the equity method, including fair value adjustments and modifications for differences in accounting policy. Dividend distribution by the associate is adjusted against the carrying amount of the investment.

Unrealised gains on transactions between the Company and its associate are eliminated to the extent of the Company's interest in the associate.

3.7 Stores and spares

Stores and spares includes primarily mechanical spares, electrical spares and chemicals required for the day to day operational activities of plant and maintenance. Initially, spares were recognised at cost. However, currently these are valued at lower of cost and net realizable value, less provision for slow moving and obsolete items, if any.

3.8 Stock in trade

Stock in trade is valued at lower of cost, calculated on weighted average cost basis and net realisable value. Net realisable value signifies the estimated selling price in the ordinary course of business less costs necessarily to be incurred in order to make a sale. Provision is made in the financial statements for obsolete and slow-moving stock-in-trade based on management's best estimate. Materials in transit are stated at cost comprising invoice value plus other charges paid thereon.

3.9 Financial Instruments

3.9.1 Financial assets

(a) Classification

The Company classifies its financial assets on initial recognition in the following categories: at amortized cost, at fair value through profit or loss (FVTPL) and at fair value through other comprehensive income (FVOCI). Financial assets are not reclassified subsequent to their initial recognition unless the Company changes its business model for managing financial asset, in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

SAJGL

(b) Amortized cost

A financial asset is measured at amortized cost if it meets both of the following conditions and is not designated as at FVTPL: (i) It is held within a business model whose objective is to hold assets to collect contractual cash flows; and (ii) Its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

(c) Fair value through other comprehensive income

A debt investment is measured at FVOCI if it meets both of the following conditions and is not designated as at FVTPL: (i) It is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and (ii) Its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

On initial recognition of an equity investment that is not held for trading, the Company may irrevocably elect to present subsequent changes in its fair value as other comprehensive income. This election is made on an investment by investment basis.

(d) Fair value through profit or loss

All financial assets not classified as measured at amortized cost or FVOCI as described above are measured at FVTPL. This includes all derivative financial assets. On initial recognition, the Company irrevocably designates a financial asset that otherwise meets the requirements to be measured at amortized cost or at FVOCI as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

3.9.2 Financial liabilities

Financial liabilities are classified as measured at amortized cost or FVTPL. A financial liability is classified as FVTPL if it is classified as held-for-trading, it is designated as such on initial recognition as it is a derivative financial instrument. Financial liabilities at FVTPL are measured at fair value and net gains and losses, including any interest expense, are recognized in profit or loss. Other financial liabilities are subsequently measured at amortized cost using the effective interest method. Interest expense and foreign exchange gains and losses are recognized in statement of profit or loss. Any gain or loss on derecognition is also recognized in profit or loss. The financial liabilities of the Company includes long term loans, lease liability, creditors, retention money, other liabilities, payable to employees provident fund trust, accrued liabilities, security deposit payable, unclaimed dividend and short term running finance.

3.9.3 Recognition and measurement

Trade and other receivables are initially recognized when they are originated. All other financial assets and financial liabilities are initially recognized when the Company becomes a party to the contractual provisions of the instrument.

A financial asset (unless it is a trade receivable without a significant financing component) is initially measured at fair value plus, for an item not at fair value through profit or loss (FVTPL), transaction costs that are directly attributable to its acquisition or issue. A trade receivable without a significant financing component is initially measured at the transaction price.

A financial liability is initially measured at fair value minus, for an item not at fair value through profit or loss (FVTPL), transaction costs that are directly attributable to its acquisition or issue.

SAJ

3.9.4 Subsequent measurement and gains and losses

- (i) Financial assets at amortized cost
These assets are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment are recognized in profit or loss. Any gain or loss on derecognition is recognized in profit or loss.
- (ii) Financial assets at FVOCI
Debt investments are subsequently measured at fair value. Interest income calculated using effective interest method, foreign exchange gains and losses and impairment are recognized in profit or loss. Other net gains and losses are recognized in OCI. On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss.

Equity investments are subsequently measured at fair value. Interest income calculated using effective interest method, foreign exchange gains and losses and impairment are recognized in profit or loss. Other net gains and losses are recognized in OCI. On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss.
- (iii) Financial assets at FVTPL
These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognized in profit or loss.

Financial assets of the Company include trade debts, other receivables, cash and bank balances, long term deposits, trade deposits and short term investments.

3.9.5 Derecognition

- (i) Financial assets
The Company derecognizes a financial asset when the contractual rights to the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which the Company neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.
- (ii) Financial liabilities
The Company derecognizes a financial liability when its contractual obligations are discharged, cancelled or expire. The Company also derecognizes a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognized at fair value. On derecognition of a financial liability, the difference between the carrying amount extinguished and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognized in the statement of profit or loss.
- (iii) Off-setting of financial assets and liabilities
Financial assets and financial liabilities are offset and the net amount is reported in the statement of financial position, if the Company has a legally enforceable right to offset the recognised amounts and intends either to settle on a net basis or to realize the assets and settle the liabilities simultaneously.

SAJAL

3.10 Staff retirement benefits

3.10.1 Defined benefit plan

The Company operates a funded gratuity scheme under an independent trust for its employees as a defined benefit plan. The Company makes contributions or records liability in respect of defined benefit plans on the basis of actuarial valuations, carried out annually by independent actuaries. The latest actuarial valuation was carried out as of December 31, 2024. The calculations of actuaries are based on the Projected Unit Credit Method, net of the assets guaranteeing the plan, if any, with the obligation increasing from year to year, in a manner that it is proportional to the length of service of the employees.

The interest element of the defined benefit cost represents the change in present value of scheme obligations resulting from the passage of time, and is determined by applying the discount rate to the net defined benefit liability / (asset).

Gratuity is paid to the employees as per the last drawn basic salary multiplied by the number of service years subject to maximum service of twenty years.

Past service costs are recognized immediately in profit or loss.

3.10.2 Defined contribution plan

The Company operates a funded provident fund plan for its employees. Monthly contributions are made by the employees at the rate of 10%, 15% and 20% of basic salary while the Company contributes at a fixed rate of 10% of the basic salary.

3.11 Deferred employee benefits

The Company maintains provision for deferred employee benefits consisting of compensation against unutilised leaves as at the reporting date to all its permanent employees in accordance with the rules of the Company. The compensation against leaves is encashable upon separation from the Company. However, the Company revised its policy for compensated absences in April, 01 2022. No further accumulation of annual leaves is allowed, however, annual leaves already accumulated as of March 31, 2022 will be continued till the time these are consumed by the individual or encashed on current gross at the time of separation.

3.12 Provisions

A provision is recognized in the statement of financial position when the Company has a legal or constructive obligation as a result of a past event, and it is probable that an outflow of economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of obligation. Provisions are measured at the present value of expected expenditure, discounted at a rate that reflects current market assessment of the time value of the money and the risk specific to the obligation. Provisions are reviewed at each statement of financial position date and adjusted to reflect current best estimate.

3.13 Share capital and dividend

Ordinary shares are classified as equity and recognized at their face value. Dividend distribution to the shareholders is recognized as liability in the period in which it is declared.

3.14 Cash and cash equivalents

Cash and cash equivalents comprise cash in hand, balances at banks, short term highly liquid investments with original maturity of three months or less from the acquisition date that are subject to insignificant risk of changes in their fair value and short-term borrowings.

S. S. S.

3.15 Revenue recognition

The Company signed its PPA with K-Electric and PPA / SSA with FFC on July 04, 2018 and April 15, 2016 respectively. Under the PPA / SSA, the Company is obligated to sell and deliver all output of the Complex, as defined under PPA / SSA, in accordance with provisions of PPA / SSA.

Revenue from sale of electricity and steam is recognized when or as the Company satisfies performance obligation by transferring a promised good or service to a customer. A good or service is transferred when the customer obtains control of that good or service. The Company principally satisfies its performance obligation in respect of supply of electricity and steam upon transmission of electricity and steam to K-Electric and FFC respectively. However, capacity is recognized when due. Revenues from sale of electricity, steam and capacity is recognised on the basis of rates determined in accordance with the mechanism laid down in PPA / SSA and notifications from National Electric and Power Regulatory Authority (NEPRA).

The Company applies the right to invoice practical expedient under IFRS 15. However, there is no significant financing component. The individual components of considerations is billed on monthly basis in accordance with the terms of PPA / SSA. The payment is due in 30 days after the acknowledgement of the output delivered invoice and capacity available invoice, respectively. Late payment surcharge, as per the PPA / SSA, on over-due receivables is recorded on accrual basis at 3-month KIBOR plus 2%. All sales are being made within Pakistan locally.

Revenue from sale of coal is recognised upon satisfaction of Company's performance obligation, i.e. dispatch of coal to customers, to the extent where significant reversal is not expected. Provisional revenue is recognised on items of tariff which are yet to be notified by NEPRA are recognised on an estimate basis and adjustments if any are charged to statement of profit or loss upon decision by NEPRA.

3.16 Borrowing costs

Borrowing costs are recognized as an expense in the period in which they are incurred except where such costs relate to the acquisition, construction or production of a qualifying asset in which case such costs are capitalized as part of the cost of that asset.

3.17 Finance income and finance cost

Finance income comprises interest income on funds invested, deposit accounts and dividend income on investment in marketable securities. Income on bank deposits is accrued on a time proportion basis by reference to the principal outstanding and the applicable rate of return. Income on investments is recognized on time proportion basis taking into account the effective yield of such securities.

Finance cost comprises interest expense on borrowings, amortisation of transaction cost, exchange losses and bank charges and is recognised in the statement of profit or loss on accrual basis.

3.18 Foreign currency translation and transaction

Transactions in foreign currencies are translated into functional currency at exchange rates at the date of transaction. Monetary assets and liabilities denominated in foreign currencies outstanding on the date of statement of financial position are translated to the functional currency at the exchange rates prevailing on that date. The foreign currency gain or loss on monetary items is the difference between amortized cost in the functional currency at beginning of the year, adjusted for effective interest and payments during the year, and amortized cost in foreign currency translated at the exchange rate at statement of financial position date. Exchange differences are included in the statement of profit or loss.

3.19 Acquisition reserve

This reserve represents share of acquisition reserve of associate on account of merger of entire business of Fauji Cereals into Fauji Foods Limited with effect from February 19, 2024. The reserve will be utilised as per the instructions of the Board of directors of FFL or upon disposal of the Company's investment in FFL.

Signature

4 PROPERTY, PLANT AND EQUIPMENT

	Freehold land - note 4.3	Leasehold land - note 4.4	Building on leasehold land	Plant and machinery	Operational vehicles	Furniture and fittings	Other vehicles	Computer and other equipments	Capital work in progress - note 4.5	Total
Rupees'000										
As at January 1, 2023										
Cost	191,176	1,449,050	5,875,488	22,305,867	405,446	88,077	141,228	94,887	214,432	30,765,651
Accumulated depreciation	-	(323,654)	(1,020,136)	(4,486,642)	(75,163)	(30,284)	(69,210)	(89,836)	-	(6,094,925)
Net book value	191,176	1,125,396	4,855,352	17,819,225	330,283	57,793	72,018	5,051	214,432	24,670,726
Year ended December 31, 2023										
Opening net book value	191,176	1,125,396	4,855,352	17,819,225	330,283	57,793	72,018	5,051	214,432	24,670,726
Additions	-	-	-	-	-	22,268	24,834	6,942	613,366	667,410
Transfers	-	-	126,124	645,108	-	-	-	-	(771,232)	-
Inter class transfers	-	-	2,160	-	-	(2,160)	-	-	-	-
Disposals	-	-	-	-	-	-	-	-	-	-
Cost	-	-	-	-	-	228	27,172	1,100	-	28,500
Accumulated depreciation	-	-	-	-	-	(203)	(17,233)	(1,099)	-	(18,535)
Depreciation	-	-	-	-	-	25	9,939	1	-	9,965
Depreciation charge	-	54,897	199,504	778,849	17,014	7,302	25,107	4,257	-	1,086,930
Transfers	-	-	1,892	-	-	(1,892)	-	-	-	-
Depreciation charge	-	(54,897)	(201,396)	(778,849)	(17,014)	(5,410)	(25,107)	(4,257)	-	(1,086,930)
Closing net book value	191,176	1,070,499	4,782,240	17,685,484	313,269	72,466	61,806	7,735	56,566	24,241,241
As at December 31, 2023										
Cost	191,176	1,449,050	6,003,772	22,950,975	405,446	107,957	138,890	100,729	56,566	31,404,561
Accumulated depreciation	-	(378,551)	(1,221,532)	(5,265,491)	(92,177)	(35,491)	(77,084)	(92,994)	-	(7,163,320)
Net book value	191,176	1,070,499	4,782,240	17,685,484	313,269	72,466	61,806	7,735	56,566	24,241,241
Year ended December 31, 2024										
Opening net book value	191,176	1,070,499	4,782,240	17,685,484	313,269	72,466	61,806	7,735	56,566	24,241,241
Additions	-	-	-	-	-	236	122,088	7,042	362,117	491,483
Transfers	-	-	53,483	301,660	-	-	-	-	(355,143)	-
Disposals	-	-	-	-	-	-	-	-	-	-
Cost	-	-	-	100,900	-	-	41,781	-	-	142,681
Accumulated depreciation	-	-	-	(25,477)	-	-	(28,959)	-	-	(54,436)
Depreciation	-	-	-	75,423	-	-	12,822	-	-	88,245
Depreciation charge	-	(54,897)	(205,710)	(842,409)	(17,014)	(9,016)	(27,273)	(5,762)	-	(1,162,081)
Closing net book value	191,176	1,015,602	4,630,013	17,069,312	296,255	63,686	143,799	9,015	63,540	23,482,398
As at December 31, 2024										
Cost	191,176	1,449,050	6,057,255	23,151,735	405,446	108,193	219,197	107,771	63,540	31,753,363
Accumulated depreciation	-	(433,448)	(1,427,242)	(6,082,423)	(109,191)	(44,507)	(75,398)	(98,756)	-	(8,270,965)
Net book value	191,176	1,015,602	4,630,013	17,069,312	296,255	63,686	143,799	9,015	63,540	23,482,398
Rates of depreciation % per annum	-	3.76%	3.3%	3% - 33%	5%	10%	20%	33%	-	-

Signature

4.1 Detail of property, plant and equipment disposed

	Cost	Book value	Sale proceeds	Gain/(loss)	Mode of disposal	Particular of Purchaser	Relationship with the Company
	Rupees '000						
Motor vehicle	1,932	290	278	(12)	As per Company policy	Ali Umair Imran	Executives
Motor vehicle	2,040	986	296	(690)	As per Company policy	Syed Adeel Ahmed	Executives
Motor vehicle	1,955	684	1,007	323	As per Company policy	Karrar Hussain Naqvi	Executives
Motor vehicle	1,923	737	944	207	As per Company policy	Basil Iqbal Khan	Executives
Motor vehicle	1,993	831	972	141	As per Company policy	Farhan Ahmed Mazari	Executives
Motor vehicle	2,408	-	476	476	As per Company policy	Shabbir Ahmed Memon	Executives
Motor vehicle	2,408	-	476	476	As per Company policy	M. Kashif Jamil	Executives
Motor vehicle	2,899	48	571	523	As per Company policy	Mahboob Ahmad	Executives
Motor vehicle	2,838	1,041	555	(486)	As per Company policy	Syed Sarfaraz Ahmed	Executives
Motor vehicle	3,130	2,143	606	(1,537)	As per Company policy	Bashir Muhammad	Executives
Motor vehicle	1,917	128	278	150	As per Company policy	Waris Ali	Executives
Motor vehicle	2,459	-	481	481	As per Company policy	Shahid Saud Ul Hassan	Executives
Motor vehicle	3,098	2,017	2,051	34	As per Company policy	Soban Bin Zafar	Executives
Motor vehicle	4,084	3,063	3,195	132	As per Company policy	Imran Hyder	Executives
Motor vehicle	2,590	-	507	507	As per Company policy	Abdul Khaliq	Executives
Motor vehicle	2,049	854	508	(346)	As per Company policy	Sumair Ahmed Khan	Executives
Motor vehicle	2,058	-	401	401	As per Company policy	Ahmed Nawaz	Executives
Total 2024	41,781	12,822	13,602	780			
Total 2023	28,500	9,964	9,395	(569)			

- 4.2 During the year two stators of STG 1 & 2, have been disposed off costing of Rs. 100.9 million and having book value of Rs. 75.4 million. The loss on disposal amounting to Rs. 75.4 million and insurance claim of Rs. 603.26 million has been recognised in the financial statements.
- 4.3 The freehold land is in Company's possession, however, legal title is not available with the Company.
- 4.4 The agreement for leasehold land held by the Company contains an option for further extension in lease term. The cost of right of use asset over the extended lease term cannot be reasonably ascertained. The management expects to utilize the option for extension in lease term in order to fulfill its contractual obligations.
- 4.5 Capital work in progress

	2024	2023
	Rupees '000	Rupees '000
Buildings on leasehold land	-	46,801
Plant and machinery	63,540	9,765
	<u>63,540</u>	<u>56,566</u>

4.5.1 This represents to the net balance after transfers to building and plant and machinery

4.6 The depreciation charge has been allocated as follows:

	Note	2024	2023
		Rupees '000	Rupees '000
Cost of sales	21	1,158,583	1,083,460
Administrative expenses	22	3,498	3,470
		<u>1,162,081</u>	<u>1,086,930</u>

2772

	2024 Rupees '000	2023 Rupees '000
5 INTANGIBLE ASSETS		
SAP Software	<u>6,344</u>	<u>2,398</u>
Cost		
Balance as at January 01	50,678	50,678
Addition during the year	<u>6,172</u>	-
Balance as at December 31	<u>56,850</u>	<u>50,678</u>
Accumulated amortization and impairment losses		
Balance as at January 01	48,280	35,998
Amortization during the year	<u>2,226</u>	<u>12,282</u>
Balance as at December 31	<u>50,506</u>	<u>48,280</u>
Carrying amounts as at December 31	<u>6,344</u>	<u>2,398</u>
Useful life / amortization rate	33.33%	33.33%

5.1 This represents cost of software acquisition and implementation for SAP, SAP SuccessFactors, QlikSense, 3D Laser Software and SAP S4 HANA.

	Note	2024 Rupees '000	2023 Rupees '000
5.2 The amortisation charge has been allocated as follows:			
Cost of sales	21	2,226	11,162
Administrative expenses	22	-	1,120
		<u>2,226</u>	<u>12,282</u>

6 LONG TERM INVESTMENT

The Company's interest in associate is as follows:

6.1 Fauji Foods Limited (FFL) - Quoted

Carrying value at year end	6.2	<u>3,737,906</u>	<u>4,085,621</u>
Fully paid ordinary shares of Rs. 10 each		4,000,000	4,000,000
Quoted market value		7,172,000	4,456,000
%age shareholding		15.87%	15.87%

6.2 Movement during the year is as follow:

Balance at start of the year	4,085,621	-
Investment during the year	-	4,000,000
Share of profit from associate during the year	104,191	118,184
Share of OCI from associate during the year	153	(32,563)
Share of acquisition reserve of FFL	<u>(452,059)</u>	-
Balance as at end of the year	<u>3,737,906</u>	<u>4,085,621</u>

Signature

- 6.3 On March 16, 2023, the Company made an investment of Rs 4 billion in Fauji Foods Limited (FFL), a Fauji Foundation (FF) group entity, by acquiring 400,000,000 ordinary shares at par value of Rs 10 per share giving the Company an ownership of 15.87% in FFL.

The investment was made under the authority of a special resolution and in accordance with the requirements of the Companies Act, 2017 and after obtaining all regulatory approvals. FFL is incorporated in Pakistan and listed on Pakistan Stock Exchange (PSX) and engaged in the processing and sale of toned milk, milk powder, fruit juices, allied dairy and food products. FFL is a subsidiary of FFC and the ultimate parent is FF. This is a strategic investment of the Company.

As required by SECP, the Company is required to retain its shareholding in these shares for a period of two years from the date of issuance of shares to the Company.

Although the Company has less than 20 percent shareholding in FFL, this has been treated as an associate since the Company has representation on its Board of Directors.

- 6.4 For the purpose of acquisition accounting, fair values of acquired net assets were measured provisionally at the date of acquisition. The management assessed that the transactions between the date of acquisition of associate i.e March 16, 2023 and the reporting period of the associate i.e March 31, 2023 are not material and, accordingly, the assets and liabilities as at March 31, 2023 have been considered for the purpose of determination of fair values of the identifiable assets and liabilities of associate as at the date of acquisition. During the period, the Company carried out an exercise to firm up the fair values of net assets acquired, to complete the acquisition accounting within a period of twelve months from the date of acquisition in accordance with IFRS 3 'Business Combinations'. Accordingly, the fair values of net assets acquired have been revised and and resultantly a notional goodwill of Rs 1,370.6 million was determined on the basis of notional fair values as detailed below. The company has assessed that there is no retrospective effect as a result of this revision in provisional fair values of the net assets acquired, accordingly, no adjustment is required to be made in these financial statements retrospectively.

	Recognised values after measurement period	Recognised Amounts measured on provisional basis
	Rupees '000	Rupees '000
Purchase consideration paid in cash	4,000,000	4,000,000
Fair value of identifiable net assets	16,565,267	11,794,974
Percentage of identifiable net assets acquired	2,629,446	1,872,245
Goodwill	1,370,554	2,127,755

- 6.5 Brand has been recognised as intangible asset as a result of investment in FFL. The brand amounting to Rs 784.8 million has been treated as having an indefinite useful life because it is expected to contribute to net cash inflows indefinitely based on the analysis of various economic factors which indicated that there is no limit to the period this asset would contribute to the net cash inflows and, consequently, the said intangible will not be amortised until its useful life is determined to be finite. It is tested for impairment annually and whenever there is an indication that the intangible asset may be impaired.

003920

- 6.6 The summarized financial information in respect the Fauji Foods Limited is set out below. The summarized financial information represents the amounts shown in the associate's financial statements for the years ended December 31, 2024 and December 31, 2023 is as follow:

	Note	2024 Rupees '000	2023 Rupees '000
Summarised statement of financial position			
Current assets		9,094,269	6,876,494
Asset held for sale		-	262,655
Non-current assets		9,558,165	9,071,160
Current liabilities		(8,801,161)	(2,104,527)
Non-current liabilities		(336,417)	(50,355)
Net Assets (100%)		9,514,856	14,055,427
Reconciliation to carrying amounts :			
Opening carrying value of net assets		11,705,427	10,514,389
Profit for the year		656,398	774,695
Other comprehensive (loss) / income		962	436,932
Items directly accounted for in statement of changes in equity			
-share deposit money		-	2,350,000
-share issuance cost charged against share premium		-	(20,589)
-acquisition reserve		(2,847,931)	-
Net assets		9,514,856	14,055,427
Less: Share deposit money already accounted for in carrying value of net assets of Rs10,514 thousand at the date of acquisition		-	(2,350,000)
		9,514,856	11,705,427
Percentage of Shareholding		15.87%	15.87%
Share in net assets		1,510,317	1,858,031
Goodwill / Goodwill-provisional		1,370,554	2,127,755
Fair value adjustments			
- brand - intangibles recognised		778,900	-
- write down in respect of trade debts			
- other adjustments		78,135	99,835
Carrying amount		3,737,906	4,085,621
Summarised statement of comprehensive income			
Revenue		23,404,094	19,370,542
Profit for the year		656,398	605,112
Other comprehensive (loss) / income for the year		962	436,932
Total comprehensive income for the year		657,360	1,042,044

Signature

- 6.7 Management has performed an assessment of its investment in FFL and is of the view that recoverable amount exceeds its carrying value based on multiple factors including the fair market value of its shares etc. and thereby concluded that the recoverable amount of the investment in FFL exceeds its carrying amount.

7	STOCK IN TRADE	Note	2024 Rupees '000	2023 Rupees '000
	Coal	7.1	2,121,862	2,482,617
	Limestone		10,255	6,149
			<u>2,132,117</u>	<u>2,488,766</u>

- 7.1 This includes Rs. 1,004.34 million coal stock of the Company at the Pakistan International Bulk Terminal Ltd. site as on December 31, 2024.

8	TRADE DEBTS		2024 Rupees '000	2023 Rupees '000
	Trade debts	8.1	3,792,214	4,641,997
	Expected credit losses		(26,586)	(26,586)
			<u>3,765,628</u>	<u>4,615,411</u>

- 8.1 This includes Rs. 1,771.30 million (2023: Rs. 2,345.01 million) receivable from the Parent Company. Maximum amount outstanding during the year was Rs. 4,444.14 million (2023: Rs. 8,546.11 million).

- 8.2 This includes provisional revenue amounting to Rs. 1,893.03 million (2023: Rs. 1,156 million) in respect of ash, limestone, water, insurance, fuel price adjustment, WPPF, WWF and GST etc.

9	LOANS, ADVANCES, PREPAYMENTS AND OTHER RECEIVABLES		2024 Rupees '000	2023 Rupees '000
	Advances - considered good			
	Suppliers		151,691	169,358
	Customs clearing agent		149,286	34,372
			<u>300,977</u>	<u>203,730</u>
	Loan to employees - Secured	9.1	34,983	42,259
	Prepayments		165,752	167,583
	Insurance claim receivable		166,453	-
	Sales tax refundable		120,846	169,508
	Margin against letters of credit		558	16,019
	Security deposits		5,509	5,509
			<u>795,078</u>	<u>604,608</u>

- 9.1 This includes non-interest bearing loans to employees amounting to Rs. 30.61 million to management executives (2023: Rs. 31.69 million) and Rs. 5.97 million to the staff (2023: Rs. 7.45 million). Loan has been sectioned for the purpose of vehicle and house rent (upto 50% of one year basic pay) under the Company's policy.

10	INCOME TAX REFUNDABLE		2024 Rupees '000	2023 Rupees '000
	Balance at start of the year		287,611	332,330
	Advance tax paid during the year		218,504	221,446
	Provision of income tax for the year		(232,508)	(266,165)
	Balance as at end of the year		<u>273,607</u>	<u>287,611</u>

273,607.

	Note	2024 Rupees '000	2023 Rupees '000
11 CASH AND BANK BALANCES			
Cash in hand - local currency		1,255	1,394
Cash at bank - local currency			
- Current accounts		1,097	25
- Saving accounts	11.1 & 11.2	2,353,424	2,868,573
	11.3	<u>2,355,776</u>	<u>2,869,992</u>
11.1 The balances in saving accounts carry interest rates ranging from 4.50% to 20.51% (2023: 7.5% to 20.51%) per annum. This includes accrued interest amounting to Rs. 0.55 million (2023: Rs. 0.19 million).			
11.2 This include balance of Rs. 2,204 million (2023: Rs. 3.21 million) were held with Askari Bank Limited (related party) at profit rate of 13.5% per annum.			
11.3 All the bank balances as at year end are held under lien with banks as explained in note 13.3 (e).			
11.4 CASH AND CASH EQUIVALENTS	Note	2024 Rupees '000	2023 Rupees '000
Cash and bank balances	11	2,355,776	2,869,992
Short term borrowings	16	(7,063,665)	(5,536,840)
Balance as per cash flow statement		<u>(4,707,889)</u>	<u>(2,666,848)</u>
		2024 Rupees '000	2023 Rupees '000
12 SHARE CAPITAL			
Authorised share capital			
Ordinary shares of Rs. 10 each 900,000,000 (2023: 900,000,000)		<u>9,000,000</u>	<u>9,000,000</u>
Issued, subscribed and paid up capital			
Ordinary shares of Rs. 10 each 858,750,000 (2023: 858,750,000)		<u>8,587,500</u>	<u>8,587,500</u>
Number of shares as at year end		<u>858,750,000</u>	<u>858,750,000</u>
		2024 Number of shares	2023 shares
12.1 The pattern of shareholding of the Company is as follows:			
Fauji Fertilizer Company Limited		644,062,491	644,062,491
Fauji Foundation		214,687,500	214,687,500
Nominee Directors		9	9
12.2 Shares held by Fauji Fertilizer Company Limited and Fauji Foundation are pledged under lien as stated in note 13.3			
12.3 All ordinary share holders have same rights regarding voting, board election, right of first refusal and block voting.			

Signature

13 LONG TERM FINANCE FACILITIES

The Company entered into the following long term finance facilities under Commercial and Islamic Facility arrangements.

	Note	2024 Rupees '000	2023 Rupees '000
Commercial facility			
National Bank of Pakistan		-	1,638,888
United Bank Limited		-	454,959
Bank Alfalah Limited		-	1,033,999
Soneri Bank Limited		-	413,599
Bank of Punjab		-	413,599
MCB Bank Limited		-	620,869
		-	4,575,913
Islamic facility			
National Bank of Pakistan		-	413,599
Habib Bank Limited		-	1,447,598
United Bank Limited		-	454,959
Dubai Islamic Bank Limited		-	620,399
Meezan Bank Limited		-	620,399
Faysal Bank Limited		-	496,319
Sindh Bank Limited		-	413,599
		-	4,466,872
Total syndicate facility	13.1, 13.2 & 13.3	-	9,042,785
Other finance facilities:	13.2		
Allied Bank Limited - conventional		-	1,600,000
Faysal Bank Limited - Islamic		-	600,000
United Bank Limited - conventional		-	1,000,000
		-	3,200,000
Total principal outstanding		-	12,242,785
Accrued markup		-	5,776
		-	12,248,561
Less:			
Current portion of long term finance facilities		-	(3,341,949)
Unamortised transaction cost of long term finance facilities	13.6	-	(61,183)
		-	8,845,429

- 13.1 The Company had entered into syndicate long term finance facilities under commercial facility of Rs. 11,062.5 million and musharika facility of Rs. 10,800 million with various banks, at an interest rate of 3-month KIBOR plus 0.75% per annum (2023: 3-month KIBOR plus 0.75%). The loan was repayable in 40 quarterly instalments commencing from June 30, 2017, along with interest for the respective quarters. Any delay in payments to banks by the Company is subject to liquidated damages at the rate of applicable interest rate plus 2% per annum. During the year, the Company fully repaid its syndicate long-term financing facilities amounting Rs. 9.04 billion. Syndicate long-term financing facilities repaid ahead of the scheduled repayment timeline, amounting to Rs. 6.5 billion (comprising Rs. 3.289 billion under the commercial facility and Rs. 3.211 billion under the Musharika facility). These payments were made in two tranches: Rs. 3 billion on September 30, 2024, and Rs. 3.5 billion on 2024. By prepaying these facilities, the Company shortened the repayment period from the original maturity date of March 2027 to December 2024.

Signature

13.2 The Company entered into syndicate long term finance facility agreement under commercial facility of Rs. 3,250 million and musharika facility of Rs. 750 million on December 29, 2022, at an interest rate of 3-month KIBOR plus 0.5% per annum (2023: 3-month KIBOR plus 0.5%). The facility was availed on March 1, 2023. The loan was repayable in 20 quarterly instalments commencing from April 01, 2023, along with interest for the respective quarters. The loan is secured by way of charge on all current and fixed assets (excluding land and building together with encumbered in favour of working capital lenders). During the year, Company repaid the entire outstanding loan amounting Rs. 3.2 billion. Syndicate long-term financing facilities repaid ahead of the scheduled repayment timeline, amounting to Rs. 2.4 billion (comprising Rs. 1.950 billion under the syndicate term finance facility and Rs. 450 million under the Musharika facility) ahead of the scheduled payment timeline, by prepaying these facilities, the Company shortened the repayment period from the original maturity date of December 2027 to December 2024.

13.3 Facilities mentioned above are secured by way of, inter alia:

- (a) First ranking pari passu charge up to Rs. 29,150 million by way of hypothecation on all present and future moveable and immoveable fixed assets (other than land and building) of the Company;
- (b) Mortgage over land in favor of lenders;
- (c) First pari passu hypothecation charge on all present and future current assets of the Company (excluding all present and future fuel stock and inventories and any charge over any accounts of the Company opened in relation to working capital or any accounts currently opened by the Company with other banks for the purposes of the letter of credit issuance);
- (d) Assignment of Company's receivables from its off-takers in favor of financiers (excluding Energy Purchase Price - Receivables);
- (e) Lien on all project accounts opened with various banks;
- (f) An assignment of all project insurances as co-loss payee or assignee except for the working capital lender's securities;
- (g) Share representing 100% of the paid up share capital of the Company have been pledged with the security trustee of the syndicate financiers.
- (h) Undertaking by the Holding Company for uncapped support to fund any payment shortfall i.e. amount less than the required finance payment balance up to technical completion date and thereafter up to financing service cap i.e. Rs 8,000 million till debt repayment;

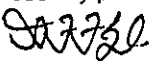
13.4 Significant covenants of above facility include maintenance of financing service coverage ratio (FSCR), current ratio, financing to equity ratio, financing life coverage ratio and forecast FSCR.

In addition to, following actions require prior consent of the lenders:

- disposal of assets;
- modification or amendment in any key project contract;
- transfer or allotment of new shares;
- incurring any new financial indebtedness;
- disbursement of dividend; and
- creation of further higher/equal ranking security on Company's assets.

Further covenants under this loan relate to the operations of the Company.

13.5 Since the Company has settled the entire long term loan, therefore the process for release of above mentioned security package has been initiated by the Company with the lenders.



	Note	2024 Rupees '000	2023 Rupees '000
13.6 Unamortised transaction cost			
Balance at start of the year		61,183	66,443
Addition during the year		45,704	31,806
Amortisation during the year	25	(106,887)	(37,066)
Balance as at end of the year		<u>-</u>	<u>61,183</u>
14 Detail of actuarial valuation of deferred employee benefits			
Present value of defined benefit obligation	14.1	203,637	190,536
Payable to outgoing employees		957	71
Net liability		<u>204,594</u>	<u>190,607</u>
14.1 Changes in present value of defined benefit obligations			
Balance at start of the year		190,536	184,437
Interest cost		29,531	23,177
Benefits due but not paid (payables)		(957)	(71)
Benefits paid		(17,565)	(25,550)
Remeasurement (gain) / loss on present value of defined benefit obligation		2,092	8,543
Balance as at end of the year		<u>203,637</u>	<u>190,536</u>
14.2 Expenses recognized in profit and loss account			
Gain and losses arising on present value of defined benefit obligation		2,092	8,545
Interest cost		29,531	23,177
		<u>31,623</u>	<u>31,722</u>
14.3 Changes in net liability			
Liability at beginning of the year		190,607	184,436
Charged to profit and loss		31,623	31,721
Benefits paid		(17,636)	(25,550)
		<u>204,594</u>	<u>190,607</u>
14.4 Principal actuarial assumptions			
Discount rate used for interest cost charged to profit and loss		16.00%	13.25%
Discount rate used for period end obligation		12.00%	16.00%
Salary increase used for year end obligations is as under:			
Salary increase FY 2024		N/A	16.00%
Salary increase FY 2025		17.00%	16.00%
Salary increase FY 2026		12.00%	16.00%
Salary increase FY 2027		12.00%	16.00%
Salary increase FY 2028		12.00%	16.00%
Salary increase FY 2029		12.00%	16.00%
Salary increase FY 2030 onward		12.00%	16.00%
Mortality rates		SLIC 2001-2005	SLIC 2001-2005
Retirement assumption		Age 60	Age 60

Signature

14.5 Sensitivity analysis

The calculation of the defined benefit obligation is sensitive to assumptions set out above. The following table summarizes how the impact on the defined benefit obligation at the end of the reporting period would have increased / (decreased) as a result of a change in respective assumptions by one percent.

	2024 Rupees '000
Effect of 1% increase	
Discount rate	(15,958)
Salary	16,372
Effect of 1% decrease	
Discount rate	16,234
Salary	(16,362)
Expected benefit payment	<u>15,079</u>

	Note	2024 Rupees '000	2023 Rupees '000
15 DEFERRED TAXATION			
The balance of deferred tax is in respect of following temporary differences:			
Accelerated tax depreciation		779,489	766,704
Share of Profit from associate		47,491	21,405
Alternate Corporate Tax	15.1	(94,464)	(68,530)
Minimum Tax	15.2	-	(31,581)
		<u>732,516</u>	<u>687,998</u>

15.1 Deferred tax asset on alternate corporate tax amounting to Rs. 19.78 million, Rs.13.65 million, Rs.16.42 million, Rs. 18.69 million and Rs. 25.93 million will expire in financial year 2028, 2029, 2030, 2031 and 2033 respectively.

15.2 Deferred tax asset on minimum tax amounting to Rs. 31.58 million has been adjusted during the year.

		2024 Rupees '000	2023 Rupees '000
16 SHORT TERM BORROWINGS - SECURED			
Principal balance outstanding	16.1	7,026,603	5,307,092
Accrued markup		37,062	229,748
	16.2	<u>7,063,665</u>	<u>5,536,840</u>

16.1 The facilities for short term running finances, available from various banks, aggregate to Rs. 10 million (2023: Rs. 8,000 million). The rate of interest on the overdraft facilities during the year ended December 31, 2024 ranging from 1-month to 3-month KIBOR and spread ranging -2% to 0.15% (2023: 0.10% to 0.20%) per annum. As of reporting date, un-availed facilities amounts to Rs. 2,936 million (2023: Rs. 2,693 million).

Signature

- 16.2 The facilities are secured by way of assignment over present and future energy purchase price receivables, hypothecation charge on stocks / inventory of the Company, liens over accounts established in connection with the facilities, ranking hypothecation charge over the present and future fixed assets (excluding land and building) and liens over import documents.

	Note	2024 Rupees '000	2023 Rupees '000
17 TRADE AND OTHER PAYABLES			
Creditors	17.1	1,001,986	194,763
Accrued expenses		617,747	416,761
Retention money payable		6,133	11,744
Payable to Employees' Provident Fund		-	3,109
Payable to Employees' Gratuity Fund	17.2	25,437	21,183
Payable against leave fair assistance		52,458	47,724
Payable to Workers' Profit Participation Fund	17.3	353,536	223,941
Payable to Workers' Welfare Fund		15,276	9,604
Withholding tax payable		128,675	102,976
Other payables		21,242	20,236
		<u>2,222,490</u>	<u>1,052,041</u>

- 17.1 This includes Rs. 212.46 million (2023: Rs. 143.79 million) payable to the Parent Company against materials / services received and use of common facility, during the year. The related invoice is received on a monthly basis with a credit period of 30 days.

		2024 Rupees '000	2023 Rupees '000
17.2 Payable to employees' gratuity fund			
The details of actuarial valuation of staff gratuity fund carried out			
Present value of defined benefit obligation	17.2.1	173,229	146,357
Fair value of plan assets	17.2.2	(148,997)	(125,174)
Payables		1,205	-
Net liability	17.2.5	<u>25,437</u>	<u>21,183</u>

17.2.1 Changes in present value of defined benefit obligations

Balance at start of the year	146,357	113,078
Current service cost	25,337	21,814
Interest cost	21,957	15,253
Remeasurement (gain) / loss on present value of defined benefit obligation	(2,173)	8,300
Benefits due but not paid (Payables)	(1,205)	
Benefits paid	(17,044)	(12,088)
Balance as at end of the year	<u>173,229</u>	<u>146,357</u>

17.2.2 Changes in fair value of plan assets

Balance at start of the year	125,174	90,375
Contributions	21,183	22,703
Interest income on plan assets	20,359	13,635
Benefits paid	(17,044)	(12,088)
Return on plan assets, excluding interest income	(675)	10,549
Balance as at end of the year	<u>148,997</u>	<u>125,174</u>

AKJL

	Note	2024 Rupees '000	2023 Rupees '000
17.2.3 Expenses recognized in profit and loss account			
Current service cost		25,337	21,814
Interest cost		21,957	15,253
Interest income on plan assets		(20,359)	(13,635)
		<u>26,935</u>	<u>23,432</u>
17.2.4 Gains recognized in other comprehensive income:			
Actuarial gain from changes in demographic assumptions		-	1,150
Actuarial gain from changes in financial assumptions		6,315	328
Experience adjustments		(8,488)	6,822
Remeasurement loss on present value of defined benefit obligation		(2,173)	8,300
Return on plan assets, excluding interest income		675	(10,549)
		<u>(1,498)</u>	<u>(2,249)</u>
17.2.5 Changes in net liability			
Balance at beginning of the year		21,183	22,703
Charged to profit and loss		26,935	23,432
Remeasurement in other comprehensive income		(1,498)	(2,249)
Contributions paid		(21,183)	(22,703)
		<u>25,437</u>	<u>21,183</u>
17.2.6 Plan assets comprise of			
Short term investments		148,796	124,789
Cash at bank		201	385
		<u>148,997</u>	<u>125,174</u>
17.2.7 Principal actuarial assumptions			
Discount rate used for interest cost charged to profit and loss		16.00%	14.25%
Discount rate used for period end obligation		12.00%	16.00%
Salary increase used for year end obligations is as under:			
Salary increase FY 2024		N/A	16.00%
Salary increase FY 2025		17.00%	16.00%
Salary increase FY 2026		12.00%	16.00%
Salary increase FY 2027		12.00%	16.00%
Salary increase FY 2028		12.00%	16.00%
Salary increase FY 2029		12.00%	16.00%
Salary increase FY 2030 onward		12.00%	16.00%
Mortality rates		SLIC 2001-2005 Setback 1 year Age 60	SLIC 2001-2005 Setback 1 year Age 60
Retirement assumption			

002720

17.2.8 Sensitivity analysis

The calculation of the defined benefit obligation is sensitive to assumptions set out above. The following table summarizes how the impact on the defined benefit obligation at the end of the reporting period would have increased / (decreased) as a result of a change in respective assumptions by one percent.

	Note	2024 Rupees '000	2023 Rupees '000
Effect of 1% increase			
Discount rate		(14,208)	(12,130)
Salary		16,553	14,223
Effect of 1% decrease			
Discount rate		16,479	14,071
Salary		(14,539)	(12,483)

The average duration of the defined benefit obligation at 2024 is 09 years (2023: 09 years).

Estimated Expenses to be charged to statement of profit or loss	2025 Rupees '000
Current service cost	26,691
Interest cost on defined benefit obligation	20,135
Interest income on plan assets	(18,498)
Amount chargedable to statement of profit or loss	28,328
Expected benefit payment	10,879

		2024 Rupees '000	2023 Rupees '000
17.3 Payable to Workers' Profit Participation Fund			
Balance at start of the year		223,941	221,799
Charge for the period	23	353,536	223,941
Amount paid		(223,941)	(221,799)
Balance as at end of the year		353,536	223,941

18 CONTRACT LIABILITIES

This balance comprises of the advances received on account of technical services.

Signature

19 CONTINGENCIES AND COMMITMENTS

19.1 Contingencies

- 19.1.1 The Inland Revenue authorities (IR Authorities) framed an order under section 161/182/205 of the Ordinance for the Tax Year 2015 and 2016 on October 27, 2017 whereby, tax demand of Rs. 1,168 million inclusive of default surcharge and penalty was created for alleged non-deduction of tax on foreign payments, local payments, and reimbursement to the parent company, 'Fauji Fertilizer Bin Qasim Limited'. Being aggrieved with the order, the Company preferred an appeal before the Commissioner Inland Revenue - Appeals (CIR-A), who whilst adjudicating the appeal set aside the principal demand along with default surcharge and penalty and remanded the case back to the assessing officer for reconsideration. Being aggrieved with the order of CIR-A the Company filed an appeal before the Appellate Tribunal Inland Revenue (the ATIR) which is subjudice till date.
- 19.1.2 The Sindh Revenue Board (SRB) tax authorities framed Order in Original No.191 of 2018 dated March 26, 2018 [the Order, 191] with respect to alleged non-withholding and deposit of Sindh sales tax of Rs.78.32 million on expense of Rs.564.40 million claimed under the head 'professional services' in the annual accounts for the Years 2015 and 2016. Through the Order, the SRB tax authorities along with the principal sales tax demand has charged penalty of Rs. 82.23 million and default surcharge. Being aggrieved with the Order, the Company preferred an appeal before the Commissioner (Appeals), SRB Karachi [the CA(SRB)] which was heard for orders on January 17, 2020. Furthermore, the stay has been granted by the Honorable High Court, however the Appellate order of the CA(SRB) is still awaited.
- 19.1.3 The IR authorities framed an Order-in-Original 11/26 of 2024 dated January 03, 2024 and raised the sales tax demand of Rs. 89.9 million in respect of inadmissible claim of input tax for the tax period from January 2020 to June 2023. The Company has filed an appeal before the CIR-A against the impugned order which was remanded back to the assessing officer for reconsideration. The matter is outstanding with the assessing officer for further proceeding.
- 19.1.4 The Additional Commissioner Inland Revenue (the ADCIR) framed an order under section 122(9)/122(5A) of the Ordinance for the Tax Year 2019. The ADCIR challenged the basis of allocation of expenses between exempt income, income subject to final tax regime and normal tax regime. Further, the ADCIR have also challenged the claim of deductible allowances on account of Workers Welfare Fund. Being aggrieved with the order, the Company has filed an appeal before the CIR-A who upheld the Order of the ADCIR through Appellate Order dated July 05, 2023. Being aggrieved with the order of the CIR-A the Company filed an appeal before the ATIR which is subjudice till date.
- 19.1.5 The management of the Company is of the view that the ultimate outcome of these cases are expected to be favorable and liability, if any, arising on the settlement of these cases is not likely to be material. Accordingly, no provision has been made in the financial statements in this regard.

19.2 Commitments

- (i) Commitments include those in respect of capital expenditure for an aggregate of amount Rs. 328.03 million (2023: Rs. 74.47 million).
- (ii) The outstanding amount against letters of credit is Rs. 157.91 million (2023: Rs. 2,337.47 million) out of total facility of Rs. 13,800 million (2023: Rs. 11,425 million). The aggregate facilities for opening of letters of credit's are secured by lien on valid import documents.

Signature

			2024	2023
		Note	Rupees '000	Rupees '000
20	REVENUE - NET			
	Sale of electricity :			
	Energy		11,578,825	10,727,242
	Capacity		11,596,800	10,296,678
			23,175,625	21,023,920
	Sale of steam :			
	Energy		8,866,387	8,470,289
	Capacity		2,578,518	2,810,008
			11,444,905	11,280,297
	Pass through items charged		393,510	223,578
	Less:			
	Sales tax		4,921,155	4,102,970
	Advance income tax from customers	20.2	586,064	367,349
			5,507,219	4,470,319
	Sales - net of government taxes		<u>29,506,821</u>	<u>28,057,476</u>
20.1	Sales to K-Electric have been recognised in the financial statements on the basis of the signed PPA and tariff approved by NEPRA vide its letter dated February 09, 2022. The tariff is further indexed as notified by NEPRA from time to time.			
20.2	This represents advance income tax invoiced at the rate of 5% under section 235 of the Income Tax Ordinance 2001, on the gross amount of electricity sold to industrial consumer - the Parent Company.			
20.3	Revenue from sale of electricity and steam is recognized over time, when the Company satisfies performance obligation by transferring a promised good or service to a customer. Revenue pertaining to capacity charge is recognized point over time when due, on the basis of rates determined in accordance with the mechanism laid down in PPA/SSA.			
20.4	Insurance claim			
	This income pertains to insurance claim for business interruption resulting from technical faults with Steam Turbine Generators (STG) 1 and 2, which experienced trips on May 5, 2023, and March 7, 2023, respectively.			
20.5	Disaggregation of revenue from contract with customer		2024 Rupees '000	2023 Rupees '000
	Electricity		19,747,643	18,395,856
	Steam		9,759,178	9,661,620
	Total revenue from contracts with customers		<u>29,506,821</u>	<u>28,057,476</u>
	Customer			
	K-Electric Limited		10,186,425	11,203,268
	Parent Company	20.5.1	19,320,396	16,854,208
			<u>29,506,821</u>	<u>28,057,476</u>
20.5.1	This relates to the defunct FFBL and thereafter to the merged entity i.e. FFC.			

20.5.1

2024
Rupees '000

2023
Rupees '000

21 COST OF SALES

Raw materials consumed	21.1	17,493,425	16,017,953
Ash dumping charges		10,930	17,029
Depreciation	4.6	1,158,583	1,083,460
Amortization	5	2,226	11,162
Salaries, wages and other benefits	21.2	1,272,360	1,145,279
Insurance		335,294	250,698
Facilities and utilities	21.3	275,514	331,046
Stores and spares consumed		421,071	467,036
Travelling and lodging		123,315	93,671
Repair, maintenance and related costs	21.4	575,785	469,815
Communication, establishment & others expenses		125,744	129,979

21,794,247

20,017,128

21.1 Raw material consumed include Rs. 786.94 million (2023: Rs. 448.83 million) charged by the Parent Company as per cost sharing agreement.

21.2 This includes charges on account of employees' retirement benefits in respect of the gratuity fund amounting Rs. 24.48 million (2023: Rs. 21.48 million), provident fund amounting Rs. 26.85 million (2023: Rs. 24.90 million) and deferred employee benefits amounting Rs. 35.47 million (2023: Rs. 29.56 million).

21.3 This includes Rs. 230.98 million (2023: Rs. 295.13 million) charged by the Parent Company under cost sharing agreement and Rs. 26.42 million (2023: Rs. 14.25 million) charged by ultimate parent, Fauji Foundation.

21.4 This includes Rs. 139.49 million (2023: Rs. 76.56 million) in respect of air freight charges for inspection of rotor and repair works for STGs.

2024
Rupees '000

2023
Rupees '000

22 ADMINISTRATIVE AND GENERAL EXPENSES

Salaries, wages and benefits	22.1	111,953	94,481
Depreciation	4.6	3,498	3,470
Amortization	5	-	1,121
Travelling and conveyance		9,515	8,634
Legal and professional charges		20,680	22,890
Printing, stationery & supplies		1,242	568
Fee and subscription		739	3,140
Utilities and communication		8,173	10,595
Insurance		2,124	2,135
Auditors' remuneration	22.2	3,285	1,731
Others		7,977	4,215

169,186

152,980

Signature

22.1	This includes charges on account of employees' retirement benefits in respect of the gratuity fund amounting Rs. 2.46 million (2023: Rs. 1.96 million), provident fund amounting Rs. 2.71 million (2023: Rs. 2.41 million) and deferred employee benefits amounting Rs. 3.56 million (2023: Rs. 2.21 million).			
			Year ended December 31, 2024 Rupees '000	Year ended December 31, 2023 Rupees '000
22.2	Auditors' remuneration	Note		
	Statutory audit fee		1,100	861
	Certifications, FFBL merger related special audit etc		1,780	590
	Out of pocket expenses		405	280
			<u>3,285</u>	<u>1,731</u>
23	OTHER OPERATING EXPENSES		2024 Rupees '000	2023 Rupees '000
	Workers' Profit Participation Fund		353,536	223,941
	Workers' Welfare Fund		14,722	8,974
	Corporate social responsibility (CSR)	23.1	<u>69,660</u>	<u>54,240</u>
			<u>437,918</u>	<u>287,155</u>
23.1	This amount relates to contribution towards CSR initiatives undertaken by the Fauji Foundation during the year with the approval of the Board.			
24	OTHER INCOME		2024 Rupees '000	2023 Rupees '000
	Income from financial assets			
	Interest on bank deposits & short term investments	24.1	73,937	14,377
	Income from non-financial assets			
	Sale of scrap		52,141	33,256
	Loss on disposal of STG 1 & 2 Stator's	4.2	(75,423)	-
	Insurance claim	24.2	603,255	-
	Gain / (Loss) on vehicles disposal	4.1	780	(569)
			528,612	(569)
	Technical services		35,197	32,499
	Others		33	5,967
			<u>615,983</u>	<u>71,153</u>
24.1	This includes profit of Rs. 1.53 million (2023: Rs. 0.35 million) received on deposit held with Askari Bank Limited (a related party).			
24.2	The insurance claim of Rs. 603.26 Million pertains to the newly procured stators for STG 1 & 2.			

Saeed

		2024 Rupees '000	2023 Rupees '000
25	FINANCE COST		
	Interest on long term finance facilities	2,110,703	2,985,194
	Interest on short term borrowings	267,583	938,522
	Amortization of transaction cost	106,887	37,066
	Exchange loss	22,885	251,835
	Bank charges	1,203	1,148
		<u>2,509,261</u>	<u>4,213,765</u>
26	TAXATION		
	Current tax		
	- Current year	259,730	229,620
	- Prior year	(27,222)	36,545
	Deferred tax		
	- Current year	44,396	80,064
	- Prior year	-	94,781
		<u>276,904</u>	<u>441,010</u>
26.1	Reconciliation of tax charge for the year		
	Accounting profit before tax	<u>7,780,443</u>	<u>4,459,657</u>
	Tax at applicable tax rate of 39% (2023: 39%)	3,034,373	1,739,266
	Tax effect of exempt income	(2,689,884)	(1,378,747)
	Tax effect of prior year charge	(27,222)	36,545
	Tax effect of alternate corporate tax / minimum tax	(31,581)	(73,086)
	Impact of difference in tax rate on investment in associate	(14,587)	(16,546)
	Deferred tax impact of prior year charge	-	94,781
	Others	5,805	38,797
		<u>276,904</u>	<u>441,010</u>

27720

27 FINANCIAL INSTRUMENTS

The following table shows the carrying amounts and fair values of financial assets and financial liabilities, including their levels in the fair value hierarchy.

	Carrying amount				Fair value			
	Financial assets at amortized cost	Fair value through profit or loss	Financial liabilities at amortized cost	Total	Level 1	Level 2	Level 3	Total
December 31, 2024	Rupees '000				Rupees '000			
Financial assets not measured at fair value								
Trade debts	3,765,628	-	-	3,765,628	-	-	-	-
Loans, advances, prepayments & other receivables	673,674	-	-	673,674	-	-	-	-
Bank balances	2,355,776	-	-	2,355,776	-	-	-	-
Total	6,795,078	-	-	6,795,078	-	-	-	-
Financial liabilities not measured at fair value								
Trade & other payables	-	-	2,222,490	2,222,490	-	-	-	-
Short term borrowings including mark-up	-	-	7,063,665	7,063,665	-	-	-	-
Long term loan including mark-up	-	-	-	-	-	-	-	-
Total	-	-	9,286,155	9,286,155	-	-	-	-
	Carrying value				Fair value			
	Financial assets at amortized cost	Fair value through profit or loss	Financial liabilities at amortized cost	Total	Level 1	Level 2	Level 3	Total
December 31, 2023	Rupees '000				Rupees '000			
Financial assets not measured at fair value								
Trade debts	4,615,411	-	-	4,615,411	-	-	-	-
Loans, advances, prepayments & other receivables	419,081	-	-	419,081	-	-	-	-
Short term investment	-	-	-	-	-	-	-	-
Bank balances	2,869,992	-	-	2,869,992	-	-	-	-
Total	7,904,484	-	-	7,904,484	-	-	-	-
Financial liabilities not measured at fair value								
Trade & other payables	-	-	1,076,109	1,076,109	-	-	-	-
Short term borrowings including mark-up	-	-	5,536,840	5,536,840	-	-	-	-
Long term loan including mark-up	-	-	14,729,366	14,729,366	-	-	-	-
Total	-	-	21,342,315	21,342,315	-	-	-	-

The table analyses financial instruments carried at fair value, by valuation method. The different levels have been defined as follows:

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 (i.e., as prices) or indirectly (i.e., derived from prices)

Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

Signature

28 FINANCIAL RISK MANAGEMENT

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

- Credit risk
- Liquidity risk
- Market risk

The Board of Directors 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 risk management policies are established to identify and analyse the risks faced by the Company, to set appropriate risk limits and controls, and to monitor risks and adherence to limits. Risk management policies and systems are reviewed regularly to reflect changes in market conditions and the Company's activities. The Company, through its training and management standards and procedures, aims to develop a disciplined and constructive control environment in which all employees understand their roles.

The Board of Directors of the Company oversees how management monitors compliance with the Company's risk management policies and procedures, and reviews the adequacy of the risk management framework in relation to the risks faced by the Company.

28.1 Credit risk

Credit risk represents the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. The carrying amount of financial assets represents the maximum credit exposure. The maximum exposure to credit risk at the reporting date was as follows:

	2024 Rupees '000	2023 Rupees '000
Trade debts	3,792,214	4,641,997
Loans, advances, prepayments & other receivables	673,674	419,081
Bank balances	2,354,521	2,868,598

The ageing of trade debts of related party (FFC) at the reporting date is as follows:

- not yet due	1,747,150	2,327,952
- from 31 to 90 days	4,331	12,960
- from 91 to 180 days	3,418	4,607
- over 180 days	16,396	-
	<u>1,771,295</u>	<u>2,345,519</u>

The ageing of trade debts other than related party at the reporting date is as follows:

- not yet due	468,786	1,149,487
- from 31 to 90 days	140,581	170,368
- from 91 to 180 days	17,404	58,442
- over 180 days	1,394,148	918,181
	<u>2,020,919</u>	<u>2,296,478</u>

Signature

The credit quality financial assets that are neither past due nor impaired can be assessed by reference to external credit ratings (if available) or to historical information about counterparty default rate.

	Short Term	Long Term	Agency	2024 Rupees '000	2023 Rupees '000
Trade debts:					
Counterparties with external credit rating					
K-Electric Limited	A-1+	AA	VIS	1,914,519	2,196,338
FFC- parent company	A-1+	AA+	VIS	1,771,295	2,345,015
				<u>3,685,814</u>	<u>4,541,353</u>
Counterparties without external credit rating					
Others					
				106,400	100,644
				<u>3,792,214</u>	<u>4,641,997</u>

Expected credit loss was calculated on trade debts using simplified approach, while expected credit loss on others was calculated using general approach. The Company has estimated that, as of reporting date the ECL on trade debts and other receivable is insignificant to these financial statements.

	2024 Rupees '000	2023 Rupees '000
<i>Counterparties without external credit rating</i>		
Loans, advances, prepayments & other receivables	<u>673,674</u>	<u>419,081</u>

Short term investments and bank balances:

The Company's short term investments and bank balances are subject to the requirements of IFRS 9, the identified impairment loss was immaterial as the counter parties have reasonably high credit ratings.

	Short Term	Long Term	Agency	2024 Rupees '000	2023 Rupees '000
Banks balances:					
<i>Counterparties with external credit rating</i>					
National Bank of Pakistan	A1+	AAA	VIS	102,099	4,149
Habib Bank Limited	A1+	AAA	VIS	31,196	1,087,918
Meezan Bank Limited	A1+	AAA	VIS	95	178
United Bank Limited	A1+	AAA	VIS	8,603	7,227
Silk Bank Limited	A1+	AA	VIS	13	11
Faysal Bank Limited	A1+	AA	VIS	106	15
Bank Alfalah Limited	A1+	AAA	PACRA	6,214	5,415
MCB Bank Limited	A1+	AAA	PACRA	424	591
Dubai Islamic Bank	A1+	AA	VIS	87	79
Bank of Punjab	A1+	AA+	PACRA	215	394
JS Bank Limited	A1+	AA	PACRA	1	-
Askari Bank Limited	A1+	AA+	PACRA	2,204,362	1,762,616
Habib Metropolitan Bank	A1+	AA+	PACRA	29	-
Soneri Bank Limited	A1+	AA	PACRA	1,077	5
				<u>2,354,521</u>	<u>2,868,598</u>

Being low risk instruments, the Company has assessed an allowance on its balances with banks based on 12 months ECL. Based upon above mentioned high credit ratings, ECL rate on bank balances and short term investments round to zero.

Signature

28.2 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 to managing liquidity is to ensure, as far as possible, that it will always have sufficient liquidity to meet its liabilities when due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to the Company's reputation. The following are the contractual maturities of financial liabilities excluding the impact of netting agreements:

Contractual maturities of financial liabilities as at December 31, 2024

	Trade & other payables	Short term borrowings	Long term finance facilities	Total
	-----Rupees '000-----			
Carrying amounts	<u>1,647,108</u>	<u>7,063,665</u>	<u>-</u>	<u>8,710,773</u>
Contractual cashflows	<u>1,647,108</u>	<u>7,063,665</u>	<u>-</u>	<u>8,710,773</u>
Six months or less	1,647,108	7,063,665	-	8,710,773
Six to twelve months	-	-	-	-
One to two years	-	-	-	-
Two to five years	-	-	-	-
Later than five years	-	-	-	-

Contractual maturities of financial liabilities as at December 31, 2023

	Trade & other payables	Short term borrowings	Long term finance facilities	Total
	-----Rupees '000-----			
Carrying amounts	<u>643,504</u>	<u>5,536,840</u>	<u>12,187,378</u>	<u>18,367,722</u>
Contractual cashflows	<u>643,504</u>	<u>5,536,840</u>	<u>14,729,366</u>	<u>20,909,710</u>
Six months or less	643,504	5,536,840	2,261,112	8,441,456
Six to twelve months	-	-	2,227,646	2,227,646
One to two years	-	-	4,348,759	4,348,759
Two to five years	-	-	5,891,849	5,891,849
Later than five years	-	-	-	-

28.3 Market risk

Market risk is the risk that the value of the financial instrument may fluctuate as a result of changes in market interest rates or the market price due to change in credit rating of the issuer or the instrument, change in market sentiments, speculative activities, supply and demand of securities and liquidity in the market. The Company is exposed to currency, price and interest rate risk only.

Price risk

The Company exposure to equity securities price risk arise from investment held by the Company in FFL and classified in the statement of financial position at the fair value.

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. Currency risk arises mainly from future commercial transactions or receivables and payables that exist due to transactions in foreign currencies.

Financial liabilities include Rs. 501.10 million (2023: Rs. 14.84 million) which are subject to currency risk.

Signature

The Company's exposure to foreign currency risk was as follows based on following amounts

	2024	2023
US Dollars	1,798,432	44,050
Euro	1,000	21,020

The following significant exchange rates were applied during the year:

	Average rates		Reporting date rate	
	2024	2023	2024	2023
	Rupees		Rupees	
US Dollars	278.48	282.81	278.85	282.40
Euro	301.24	306.41	289.66	313.11

Sensitivity analysis

A 15% strengthening of the functional currency against foreign currencies at December 31, 2024 would have increased the profit by Rs. 65.36 million (2023: Rs. 1.94 million). A 15% weakening of the functional currency against foreign currencies at December 31, 2024 would have had the equal but opposite effect of these amounts. The analysis assumes that all other variables, in particular interest rates, remain constant.

Interest rate risk

The interest rate risk is the risk that the fair value or the future cash flows of a financial instrument will fluctuate because of changes in market interest rates. Interest rate exposure arises from current account with the Parent Company, short and long term deposits with banks. At the balance sheet date the interest rate profile of the Company's interest bearing financial instruments is:

	Effective interest rates		Carrying amount	
	2024	2023	2024 Rupees '000	2023 Rupees '000
Variable rate instruments				
Financial assets				
Cash & Bank balances	4.5% to 20.51%	7.5% to 20.51%	2,355,776	2,869,992
Financial liabilities				
	1-month to 3-month KIBOR and spread ranging -2% to 0.15%	1-month to 3-month KIBOR plus 0.10% to 0.20%		
Short term borrowings			7,063,665	5,536,840
	3-month KIBOR and spread ranging from 0.5% to 0.75%	3-month KIBOR plus 0.5% to 0.75%		
Long term finance facilities			-	12,187,378
			7,063,665	17,724,218

Fair value sensitivity analysis for fixed rate instruments

The Company does not account for any fixed rate financial assets and liabilities at fair value through profit or loss. Therefore, a change in interest rate at the balance sheet date would not affect profit or loss of the Company.

Cash flow sensitivity analysis for variable rate instruments

A change of 400 basis points in interest rates through out the year would have increased / (decreased) profit by the amounts shown below. This analysis assumes that all other variables, in particular foreign currency rates, remain constant.

	Impact on profit for the year	
	400 basis points increase	400 basis points
	Rupees '000	Rupees '000
Cash flow sensitivity		
Variable rate instruments - 2024	(188,316)	188,316
Variable rate instruments - 2023	(594,169)	594,169

Signature

29 CAPITAL MANAGEMENT

The Board's policy is to maintain a strong capital base so as to maintain investor and creditor confidence and to sustain future development of the business. The Board of Directors monitors the return on capital, which the Company defines as net profit after taxation divided by total shareholders' equity. The Board of Directors also monitors the level of dividend to ordinary shareholders. There were no changes to the Company's approach to capital management during the year and the Company is not subject to externally imposed capital requirements.

The total net debt to equity ratio as at December 31, 2024 based on reported value of debt and equity was 17%:83% (2023: 45%:55%)

The Company finances its operations through equity, borrowings and management of working capital with view of maintaining an appropriate mix between various source of finance for optimal risk mitigation.

30 RECONCILIATION OF MOVEMENT OF LIABILITIES TO CASH FLOWS ARISING FROM FINANCING ACTIVITIES

	<i>Liabilities</i>		
	Long term finance facilities	Others	Total
	Rupees '000		
Balance at January 1, 2024	12,187,378	-	12,187,378
<i>Changes from non-cash items</i>			
Interest accrual reversed	(5,776)	-	(5,776)
Addition in transaction costs	(45,704)	-	(45,704)
Amortisation of transaction costs	106,887	-	106,887
Dividend declared	-	-	-
Total changes from non-cash items	55,407	-	55,407
<i>Changes from financing cash flows</i>			
Repayment of long term loan	(12,242,785)	-	(12,242,785)
Receipt of long term loan	-	-	-
Dividend paid	-	-	-
Total changes from financing cash flows	(12,242,785)	-	(12,242,785)
Balance at December 31, 2024	-	-	-
	<i>Liabilities</i>		
	Long term finance facilities	Others	Total
	Rupees '000		
Balance at January 1, 2023	11,326,936	-	11,326,936
<i>Changes from non-cash items</i>			
Interest accrual reversed	5,776	-	5,776
Addition in transaction costs	(31,806)	-	(31,806)
Amortisation of transaction costs	37,066	-	37,066
Dividend declared	3,000,000	-	3,000,000
Total changes from non-cash items	3,011,036	-	3,011,036
<i>Changes from financing cash flows</i>			
Repayment of long term loan	(3,150,594)	-	(3,150,594)
Receipt of long term loan	4,000,000	-	4,000,000
Dividend paid	(3,000,000)	-	(3,000,000)
Total changes from financing cash flows	(2,150,594)	-	(2,150,594)
Balance at December 31, 2023	12,187,378	-	12,187,378

Signature

	Note	2024 Rupees '000	2023 Rupees '000
31 DISCLOSURE IN RELATION TO SHARIAH COMPLIANCE			
31.1 STATEMENT OF FINANCIAL POSITION			
Financing obtained as per Islamic mode			
Long term finance facilities	13	-	5,066,872
Short term borrowings	16	3,800,000	1,499,996
Mark-up accrued	13 & 16	13,133	144,752
Shariah-compliant bank balances	11	100,704	4,082
31.2 Statement of profit or loss & other comprehensive income			
Revenue earned	20	29,506,821	28,057,476
Profit paid on Shariah Compliant financing	25	974,550	1,411,784
Shariah compliant other income			
Profit earned from bank deposits	24	16,016	962
Sale of scrap	24	52,141	33,256
Gain / (Loss) on vehicles disposal	24	780	(569)
Technical services	24	35,197	32,499
Others	24	33	5,967
Non-Shariah compliant other income			
Profit earned from bank deposits	24	57,920	13,415
Gain / (Loss) on assets disposal - insurance claim	20.4	527,832	-
31.3 Relationship with Shariah-Compliant			
National Bank of Pakistan			
Habib Bank Limited			
United Bank Limited			
Dubai Islamic Bank			
Meezan Bank Limited			
Faysal Bank Limited			
Sindh Bank Limited			
Silk Bank Limited			

Signature

32 RELATED PARTY TRANSACTIONS AND BALANCES

- 32.1 The Company is a subsidiary of Fauji Fertilizer Company Limited (FFC) with 75% holding (2023: defunct FFBL held 75% shares in the Company). FFC is sponsored by Fauji Foundation (FF) which holds 43.51% shares in the holding company and 25% shares of the Company. Therefore, all subsidiaries and associated undertakings of FF and FFC are related parties of the Company. The Company has also acquired 15.87% equity stake in Fauji Foods Limited (FFL).
- 32.2 The Company has related parties which comprise of entities under common directorship, directors and key management personnel. Detail of transactions with related parties, other than those which have been specifically disclosed elsewhere in these financial statements, are as follows:

	Nature of relationship	2024 Rupees '000	2023 Rupees '000
Fauji Fertilizer Company Limited (2023:FFBL)	Parent Company		
Balance payable as at		212,464	143,788
Balance receivable as at		1,771,295	2,345,519
Raw materials and services received from parent company		1,076,620	798,491
Sale of electricity, power and steam		19,033,110	16,704,496
Charged to parent company in respect of utilities / other costs		310,223	149,711
Rendering of technical services		3,574	446
Payments made		1,107,143	852,937
Dividend paid		-	2,250,000
Receipts		24,087,763	25,844,363
Fauji Foundation	Ultimate Parent		
Payments for CSR initiatives		69,660	54,240
Payments for costs charged against services		20,416	14,252
Dividend paid		-	750,000
Fauji Foods Limited	Associate		
Investment		4,000,000	4,000,000
Askari Bank Limited	Common Directorship		
Profit on PLS account		1,527	352
Mark up on long term loan		-	78,282
Balance held with bank		2,204,362	1,762,616
Fauji Cement Company Limited	Common Directorship		
Rendering of services		138	-
Receivable		19	-
Receipts		157	-
Fauji Trans Terminal Limited	Common Directorship		
Rendering of services		939	463
Receivable		-	8
Receipts		1,090	531
Foundation Power Company Dharki Ltd.	Common Directorship		
Rendering of services		-	1,079
Receipts		-	1,219
Fauji Meat Limited	Common Directorship		
Rendering of services		-	175
Receipts		-	198

Signature

		2024 Rupees '000	2023 Rupees '000
Other Related Parties			
Key Management Personnel	Remuneration	126,878	122,176
Directors	Meeting fee	2,105	2,465
FPCL Employees' Provident Fund	Contributions	29,559	27,305
	Payable	-	3,109
FPCL Employees' Gratuity Fund	Provision	26,936	23,431
	Payment	21,183	22,703
	Payable	25,437	21,183
FPCL Workers' Profit Participation Fund	Provision	353,536	223,941
	Payment	223,941	221,799
	Payable	353,536	223,941
32.3	The pattern of shareholding of the Company is as follow;	Number of shares	Number of shares
	FFC	644,062,491	644,062,491
	FF	214,687,500	214,687,500
	Nominee Directors	9	9

33 REMUNERATION OF CHIEF EXECUTIVE, DIRECTORS AND EXECUTIVES

The aggregate amount charged in the financial statements for the period in respect of remuneration, including certain benefits are given below:

	2024 Rupees '000		2023 Rupees '000	
	Directors	Executives	Directors	Executives
Meeting fee	2,105	-	2,465	-
Managerial remuneration	-	193,923	-	153,631
Housing and Utilities Allowance	-	193,994	-	153,674
Contribution to provident fund	-	19,437	-	15,363
Contribution to gratuity fund	-	20,128	-	17,191
Bonus	-	120,834	-	150,520
Others	-	112,811	-	77,669
	2,105	661,127	2,465	568,048
Number of persons	14	72	11	52

- 33.1** For the purpose of this disclosure, Executive means an employee other than Chief Executive Officer and directors of the Company whose basic salary exceeds Rs 1.2 million for the year.
- 33.2** Chief Executive Officer of the Parent Company is serving as Chief Executive Officer of the Company. No remuneration to the Chief Executive Officer is paid or payable by the Company in this respect.
- 33.3** Certain executives are also provided with the use of company maintained car and fuel amounting to Rs. 34.23 million (2023: Rs. 30.46 million) in accordance with the terms of their employment.

Signature

	2024	2023
	Megawatt	
34 CAPACITY AND PRODUCTION		
Electricity		
Installed capacity based on 8,784 hours (2023: 8,760 hours)	641,232	639,480
Actual energy delivered	483,620	410,235
	Metric ton	
Steam		
Installed capacity based on 8,784 hours (2023: 8,760 hours)	1,756,800	1,752,000
Actual steam delivered	1,529,226	1,312,031

35 RECLASSIFICATION OF COMPARATIVES

Corresponding figures have been rearranged and reclassified as follows, for the purposes of comparison and better presentation as per reporting framework. However, the change in corresponding figures has no material impact on previously reported financial position, financial performance and cashflow of the Company.

Reclassified from	Reclassified to	Rupees '000
Trade and other payables	Contract liabilities	24,068
Cost of sales	Other operating expenses	44,561
Administrative expenses	Other operating expenses	9,679

36 GENERAL

36.1 Figures have been rounded off to the nearest thousand rupees.

	2024	2023
36.2 NUMBER OF EMPLOYEES	Number of employees	
Total employees at end of the year	331	314
Average employees during the year	322	315

36.3 These financial statements were authorized for issue by the Board of Directors of the Company in their meeting held on January 29, 2025.

[Signature]

CHAIRMAN

CHIEF EXECUTIVE

DIRECTOR

CHIEF FINANCIAL OFFICER

ATTACHMENT V(D)

EXPRESSIONS OF INTEREST TO PROVIDE CREDIT OR FINANCING ALONG WITH SOURCES AND DETAILS

FFBL POWER COMPANY LIMITED (FPCL)

Expressions of Interest for Credit and Financing

In support of the proposed distribution arrangements to FonGreen Silicon Technologies Limited (FoST), FFBL Power Company Limited (FPCL) has initiated financing efforts in line with the capital requirements of the project.

For the FoST infrastructure, the total estimated capital cost of USD 3.1 million is being fully met through internal equity contributions by the Fauji Group. No external borrowing is associated with this portion of the project, and financial closure for this component has already been internally secured.

ATTACHMENT V(E)

DOCUMENTS DESCRIBING THE NET WORTH AND THE EQUITY AND DEBT RATIOS OF THE APPLICANT

RATING REPORT

FFBL Power Company Limited

REPORT DATE:

March 27, 2025

RATING ANALYST:

Saeb Jafri

saeb.jafri@vis.com.pk

RATING DETAILS

Rating Category	Latest Rating		Previous Rating	
	Long-term	Short-term	Long-term	Short-term
Entity	AA	A1	AA-	A1
<i>Rating Date</i>	March 27, 2025		December 20, 2023	
<i>Rating Outlook</i>	Stable		Stable	
<i>Rating Action</i>	Upgrade		Reaffirmed	

COMPANY INFORMATION

Incorporated on June 27, 2014

External auditors: M/s AF Ferguson & Co.
Chartered Accountants

Public Limited Company

Chairman of the Board: Anwar Ali Hyder

Key Shareholders (with stake 5% or more):

Chief Executive Officer: Jahangir Piracha

Fauji Fertilizer Company Limited (FFC) ~75%

Fauji Foundation (FF) ~25%

APPLICABLE METHODOLOGY

Applicable Rating Criteria and Rating Scale:

Corporates <https://docs.vis.com.pk/docs/CorporateMethodology.pdf>Rating Scale & Definitions <https://docs.vis.com.pk/docs/VISRatingScales.pdf>

operations have expanded from an initial paid-up capital of Rs 18.2 million, evolving into a diversified industrial and service-based network that supports both financial sustainability and social welfare programs.

Corporate Governance

The board of FPCL comprises 9 members, including 1 executive director (the CEO) and 8 non-executive directors. There are no female directors on the board. The Company has three board committees: the Audit Committee, Human Resource & Remuneration Committee and Technical Committee, responsible for governance oversight in their respective areas. The Company has room for further improvement in its corporate governance framework and may enhance it with an addition of a female representative on the board.

Operational Performance:

The annual capacity factor for CY24 was noted higher with increased demand from its parent FFC during the year. However, the availability factor during the year was slightly lower falling short of the benchmark of 85% in FY24, established in the Power Purchase Agreement (PPA) with K-Electric. The lower availability was due to operational disruptions during CY23-24, primarily caused by the tripping of two steam turbine generators, including one supplying power to auxiliaries at the Port Qasim Power Plant.

Table 1 Capacity and Production

Capacity and Production	FY23	FY24
Electricity		
Installed capacity-MW	639,480	641,232
Annual energy delivered-MW	410,235	483,620
Actual capacity factor	64.15%	75.42%
Steam		
Installed capacity-MT	1,752,000	1,756,800
Actual steam delivered-MT	1,312,031	1,529,226
Actual capacity factor	74.88%	87.04%

Key Rating Drivers

Business Risk Profile

Sector Risk: Non-Renewable Power Generation – Medium to Low

The non-renewable power sector in Pakistan, presents a medium-to-low business risk profile. The sector benefits from stable electricity demand, high barriers to entry, and long-term power purchase agreements (PPAs) that mitigate exposure to short-term demand fluctuations for independent power producers (IPPs). However, regulatory oversight, high capital intensity, and financial constraints arising from circular debt remain key risk factors.

Electricity demand in Pakistan remains relatively inelastic, with long-term growth supported by population expansion and urbanization. Although recent economic contractions have impacted industrial consumption, residential and commercial demand has remained stable. The sector is characterized by low cyclical risk, with guaranteed offtake agreements providing insulation against short-term fluctuations. However, the recent revision or termination of certain PPAs, particularly those near expiration, has introduced additional risk for some IPPs. Furthermore, the underutilization of existing capacity, with capacity factors averaging approximately 40%, has contributed to inefficiencies, leading to higher consumer tariffs, and

January 2025, the revised tariff components with FFC (formerly FFBL) were set at Rs. 15.78/kWh as CPP and Rs. 21.05/kWh as EPP.

Supply-Side Risk

The Company previously maintained a long-term supply agreement with a coal supplier, with an option for extension. However, the management decided not to extend the contract and procure coal at spot rates from the international market. This approach may enhance exposure to supply risks.

Financial Risk Profile

In FY24, FPCL achieved growth in net sales, driven by tariff adjustments implemented during the period as well as slightly higher demand from its parent. Despite revenue increase, the Company's gross margin was slightly lower at 26.14% (FY23: 28.66%), due delayed fuel cost adjustment into the tariff. However, FPCL demonstrated improved operating margin of 34.87% (FY23: 30.91%) in FY24, supported by realization of insurance claim for STG 1 & 2 as well as STG stators. The improvement in operating margins as well as lower finance cost also supported the bottom-line and net margins during the year. Net margins were reported at 25.43% (FY23: 14.32%) in FY24 which is also supported by the share of profit from FFL with holding of 15.87% (FY23: 15.87%) in FY24.

During FY24, FPCL fully repaid its long-term financial obligations, resulting in no long-term debt on its statement of financial position as of year-end. Although short-term borrowings increased; however, the overall debt level declined significantly. Consequently, gearing and leverage ratios decreased to 0.26x (FY23: 0.86x) and 0.37x (FY23: 0.96x), respectively. Given sufficient cash balances, the leverage ratios were even further lower on a net debt basis. The early repayment of long-term debt was part of a group-wide strategic initiative undertaken by the parent company, FFC, to reduce financial liabilities in response to elevated interest rates.

The reduction in debt and associated financial costs, coupled with improved FFO, resulted in improved coverages, as reflected in a higher Debt Service Coverage Ratio (DSCR) of 4.39x (FY23: 1.29x) in FY24. Despite an improvement in profitability and coverage metrics, the liquidity in terms of current ratio contracted slightly to 1.15x (FY23: 1.20x).

FFBL Power Company Limited (FPCL)

REGULATORY DISCLOSURES				Appendix II	
Name of Rated Entity	FFBL Power Company Limited				
Sector	Power				
Type of Relationship	Solicited				
Purpose of Rating	Entity Ratings				
Rating History	Rating Date	Medium to Long Term	Short Term	Rating Outlook	Rating Action
	03/27/2025	AA	A1	Stable	Upgrade
	12/20/2023	AA-	A1	Stable	Reaffirmed
	10/27/2022	AA-	A1	Stable	Reaffirmed
	10/04/2021	AA-	A1	Stable	Reaffirmed
	10/20/2020	AA-	A1	Stable	Reaffirmed
	9/12/2019	AA-	A1	Stable	Reaffirmed
	7/26/2018	AA-	A1	Stable	Initial
Instrument Structure	N/A				
Statement by the Rating Team	VIS, the analysts involved in the rating process and members of its rating committee do not have any conflict of interest relating to the credit rating(s) mentioned herein. This rating is an opinion on credit quality only and is not a recommendation to buy or sell any securities.				
Probability of Default	VIS' ratings opinions express ordinal ranking of risk, from strongest to weakest, within a universe of credit risk. Ratings are not intended as guarantees of credit quality or as exact measures of the probability that a particular issuer or particular debt issue will default.				
Disclaimer	Information herein was obtained from sources believed to be accurate and reliable; however, VIS does not guarantee the accuracy, adequacy or completeness of any information and is not responsible for any errors or omissions or for the results obtained from the use of such information. Copyright 2025 VIS Credit Rating Company Limited. All rights reserved. Contents may be used by news media with credit to VIS.				
Due Diligence Meeting Conducted	Name		Designation		Date
	Mr. Shahid Saud Ul Hassan		CFO		February 19, 2025

ATTACHMENT V(F)

REASONABLY DETAILED PROFILE OF THE APPLICANT AND THE APPLICANT'S STAFF

FFBL POWER COMPANY LIMITED (FPCL)

Profile of the Applicant and the Applicant's Staff

Applicant Profile

FFBL Power Company Limited (FPCL) is an unlisted public limited company incorporated in June 2014 as a wholly owned subsidiary of Fauji Fertilizer Company (FFC) (formerly Fauji Fertilizer Bin Qasim Limited (FFBL)). FPCL was established as a special purpose vehicle to set up and operate a coal-fired power plant located at Port Qasim, Karachi. The plant is designed to generate electricity at both 50 Hz and 60 Hz frequencies, enabling dual supply capabilities. FPCL holds a Generation Licence (No. SGC/111/2015) from NEPRA for its 118 MW facility, with a mandate to supply power to KE and FFBL. The plant operates under high-efficiency Circulating Fluidized Bed (CFB) technology, ensuring reliable and sustainable power generation.

Applicant's Staff

FPCL is led by an experienced and professionally qualified management team with core expertise spanning power generation, utility operations, finance, legal and regulatory affairs, project development, and risk management. The organizational structure is headed by the Chief Executive & Managing Director, who provides strategic direction and executive oversight. He is supported by the Chief Operating Officer (COO), who leads all technical operations, and the Chief Financial Officer (CFO), who manages all financial and commercial functions.

On the technical side, the Company is structured into specialized departments including Operations, Electrical and Instrumentation, Mechanical Maintenance, and Steam & Power, each led by department heads with significant experience in coal-fired thermal power plants. These departments are staffed by teams of professional engineers, associate engineers, and technicians responsible for daily plant performance, safety compliance, condition monitoring, and preventive maintenance.

The Operations Department ensures reliable and optimal generation output across FPCL's 50 Hz and 60 Hz systems. The Mechanical and E&I teams handle plant reliability, maintenance scheduling, and root cause diagnostics. The Health, Safety, and Environment (HSE) division ensures compliance with internal standards and applicable regulatory frameworks..

In the finance function, the CFO is supported by a dedicated team handling regulatory tariff modeling, cost control, financial planning, and NEPRA compliance. The finance division works in close coordination with the planning and regulatory affairs team to ensure that all licensing, LPM, and tariff requirements are addressed in accordance with NEPRA rules.

FFBL POWER COMPANY LIMITED (FPCL)

Support services such as IT, Legal, Procurement, HR, and Internal Audit report to their respective heads and are fully integrated into project planning, budgeting, and compliance workflows. The organization operates under a structured hierarchy, encompassing Senior Managers, Unit Managers, Section Managers, Deputy Managers, Assistant Managers, Executives and Management Associates, providing both strategic depth and operational agility.

This professional staffing structure ensures FPCL's continued compliance with applicable regulations and effective execution of all operational and licensing responsibilities.

ATTACHMENT V(G)

**EMPLOYMENT RECORDS OF ENGINEERING AND
TECHNICAL STAFF OF THE APPLICANT**

FFBL POWER COMPANY LIMITED (FPCL)

Records of Engineering and Technical Staff Proposed to be Employed

FFBL Power Company Limited (FPCL) intends to operate the proposed distribution system through its internal engineering and technical resources, leveraging its existing expertise in the operation of utility-scale power infrastructure. The staffing plan for the distribution function is currently under development, and the assignment of roles, deployment of personnel, and formalization of team structure is in progress.

The Company will ensure that the distribution operations are staffed with qualified electrical engineers, operations personnel, and support technicians, drawing from its established in-house talent pool that has been responsible for the operation and maintenance of FPCL's 118 MW coal-fired generation facility and associated transmission infrastructure.

A formal record of the designated technical team, along with individual qualifications and departmental responsibilities, will be submitted to the Honourable Authority at a later stage, in accordance with NEPRA's compliance framework and upon finalization of operational deployment under the distribution licence.

ATTACHMENT V(I)

VERIFIABLE REFERENCES IN RESPECT OF THE EXPERIENCE OF THE APPLICANT AND SUB- CONTRACTORS

FFBL POWER COMPANY LIMITED (FPCL)

References in Respect of the Experience of the Applicant

FFBL Power Company Limited (FPCL) possesses proven and verifiable experience in the development, operation, and maintenance of utility-scale power infrastructure. Since the commencement of commercial operations in May 2017, FPCL has been successfully operating a coal-based thermal power plant with an installed capacity of 118 MW, located at Port Qasim, Karachi.

The Company operates under NEPRA Generation Licence No. SGC/111/2015, and has consistently delivered power to both K-Electric and Fauji Fertilizer Bin Qasim Limited (FFBL) under bilateral arrangements. FPCL's facility includes dual-frequency output capability (50 Hz and 60 Hz), along with a robust internal electrical and control infrastructure.

In addition to its generation capabilities, FPCL has substantial experience in electric power evacuation and transmission. The Company owns and maintains a dedicated transmission facility that connects its plant to the K-Electric grid at 132 kV, operating in full compliance with NEPRA regulations and relevant Grid Code standards.

This operational history and existing infrastructure substantiate FPCL's technical and institutional capacity to undertake distribution activities and manage system reliability, compliance, and service delivery in line with the applicable regulatory framework.

ATTACHMENT VI

TECHNICAL AND FINANCIAL PROPOSALS FOR O&M, PLANNING & DEVELOPMENT

FFBL POWER COMPANY LIMITED (FPCL)

Technical and Financial Proposals for the Operation, Maintenance, Planning, and Development of Facility

1. Technical Proposal

1.1 Scope of Facility

The proposed distribution system consists of a new dedicated Feeder operating 11/13.8kV voltage, originating from the FPCL coal-based generation facility located in Port Qasim, Karachi. The line is designed to supply uninterrupted electric power to a designated Bulk Power Consumer (BPC), FonGreen Silicon Technologies Limited (FoST). The generation source (CPP) and associated electrical systems are existing and fully operational; thus, the new facility under this license pertains specifically to the distribution/export infrastructure.

1.2 Operation and Maintenance Framework

The O&M responsibility of the new feeder shall rest with FPCL and will follow a structured and preventive maintenance regime, adapted from established practices of the Company's ongoing utility-scale operations. The O&M regime will comprise:

- **Routine visual inspections** of poles, insulators, and conductors at quarterly intervals.
- **Emergency response protocols** to address unplanned outages, weather events, or physical damage.
- **Scheduled vegetation control** to ensure line clearance and minimize hazards in accordance with NEPRA and international utility standards.
- **Asset management tracking**, using digital systems to log inspection results, schedule repairs, and optimize costs of the infrastructure.

All maintenance activities will be documented and aligned with NEPRA-prescribed operational codes and safety standards.

FFBL POWER COMPANY LIMITED (FPCL)

1.3 Planning and Development

The current infrastructure focus is on the supply to FoST. FPCL shall adopt a modular expansion plan, enabling the timely addition of feeders or conversion equipment based on confirmed demand and load forecasts.

Planned developments include:

- Installation of advanced metering and protective relays at both ends of the distribution line.
- Scalable transformer configurations with the flexibility to serve dual-frequency requirements.
- Integration of remote monitoring and control systems, aligned with SCADA/or Other compatible architecture, of the existing plant.

All system upgrades and design development will comply with NEPRA's Distribution Code and relevant IEEE and IEC standards.

2. Financial Proposal

2.1 O&M Cost Structure for the New Facility

The proposed distribution infrastructure, comprising dedicated feeder operating 11/13.8 kV voltage for the supply of power to FonGreen Silicon Technologies Limited (FoST), will be operated and maintained under a cost-optimized internal O&M regime. FPCL has adequate in-house capacity, both technically and financially, to undertake the full operation and upkeep of the distribution system.

The estimated annual O&M cost for the new line includes:

- Routine inspections and preventive maintenance activities
- Thermographic and diagnostic testing
- Emergency repair services and fault response
- Line hardware replacements, protective relay checks, and compliance reporting
- Vegetation management and safety clearance

These costs will be incorporated into the bilateral commercial arrangement with the BPC and recovered directly through service-linked charges.

FFBL POWER COMPANY LIMITED (FPCL)

FPCL will maintain separate accounts and reporting for the O&M of the licensed distribution facility. Cost recovery will be embedded in the monthly energy delivery invoice to the BPC, ensuring that distribution service costs are transparently billed and independently auditable.

There will be no subsidy or cross-recovery from FPCL's generation or other regulated activities.

2.3 Financial Governance

The financial management of the distribution O&M activity will be governed by FPCL's internal controls and audit mechanisms. The Company will ensure:

- Annual O&M budgeting based on load forecasts and system requirements
- Quarterly variance tracking and performance reviews

This framework ensures full cost accountability and sustainable O&M performance for the new licensed facility.

ATTACHMENT VII

BOARD RESOLUTION

CERTIFIED TRUE COPY OF RESOLUTION PASSED THROUGH CIRCULATION

RESOLUTION NO. C-01/ 2025

"RESOLVED THAT the Company is hereby authorized to file applications and petitions for obtaining licenses, including but not limited to a supply license, permissions or modifications of its existing Tariff and Power Generation License. As may be required, including but not limited to:

- a) Sale of power to new Bulk Power Consumers (BPCs), in addition to the existing BPCs;
- b) Addition of generation capacity as deemed suitable."

"FURTHER RESOLVED THAT the Company is also authorized to file or submit application(s), petition(s), etc., with the National Electric Power Regulatory Authority (NEPRA) or any other authority, regulatory body, or governmental agency, for obtaining new tariffs, licenses including Power Generation, Distribution, Supply and Special Purpose Transmission Line or filing a Motion for Leave for Review against tariffs and licenses, as well as License Proposed Modification (LPM), Tariff Petitions, Tariff Modifications, changes in Agreements with FFC and KE etc., together with all other allied documents, including but not limited to any and all undertakings, affidavits, securities etc., as may be required, to effectuate such filings or respond thereto; or file any other applications or documents to enable the Company to implement the foregoing resolutions and to undertake associated activities. The Company is further authorized to make any oral or written representations, applications, or requests etc., to take all necessary or incidental actions with regards to the above authorizations."

"FURTHER RESOLVED THAT the Company is authorized to carry out all supplementary and ancillary actions necessary for the implementation and completion of the above matters, ensuring compliance with all applicable laws and regulations."

"FURTHER RESOLVED THAT any one individual from each group (A and B) jointly shall be authorized to act on behalf of the Company to sign, execute, novate, submit, and deliver all documents, applications, agreements, undertakings, affidavits, petitions, representations, and any other necessary instruments; and to take any action required to give full effect to these resolutions:

Group A:

Mr. Muhammad Nauman Younas
Mr. Bashir Muhammad
Lt Col Ali Siddiq (Retd)

Group B:

Mr. Shahid Saud ul Hassan
Mr. Anees Afzal
Mr. Abdul Khaliq"

"FURTHER RESOLVED THAT the management is authorized to take all further actions, including engagement of legal, financial, and technical advisors, etc., to facilitate and complete the above matters."

"FURTHER RESOLVED THAT the Company Secretary be and is hereby authorized to issue a certified copy of this resolution to all concerned authorities, regulatory bodies, counterparties, and any other relevant entities as may be required for implementation."

This resolution is hereby approved through circulation by the Board of Directors.

Certified By

Lt Col Ali Siddiq (Retd)

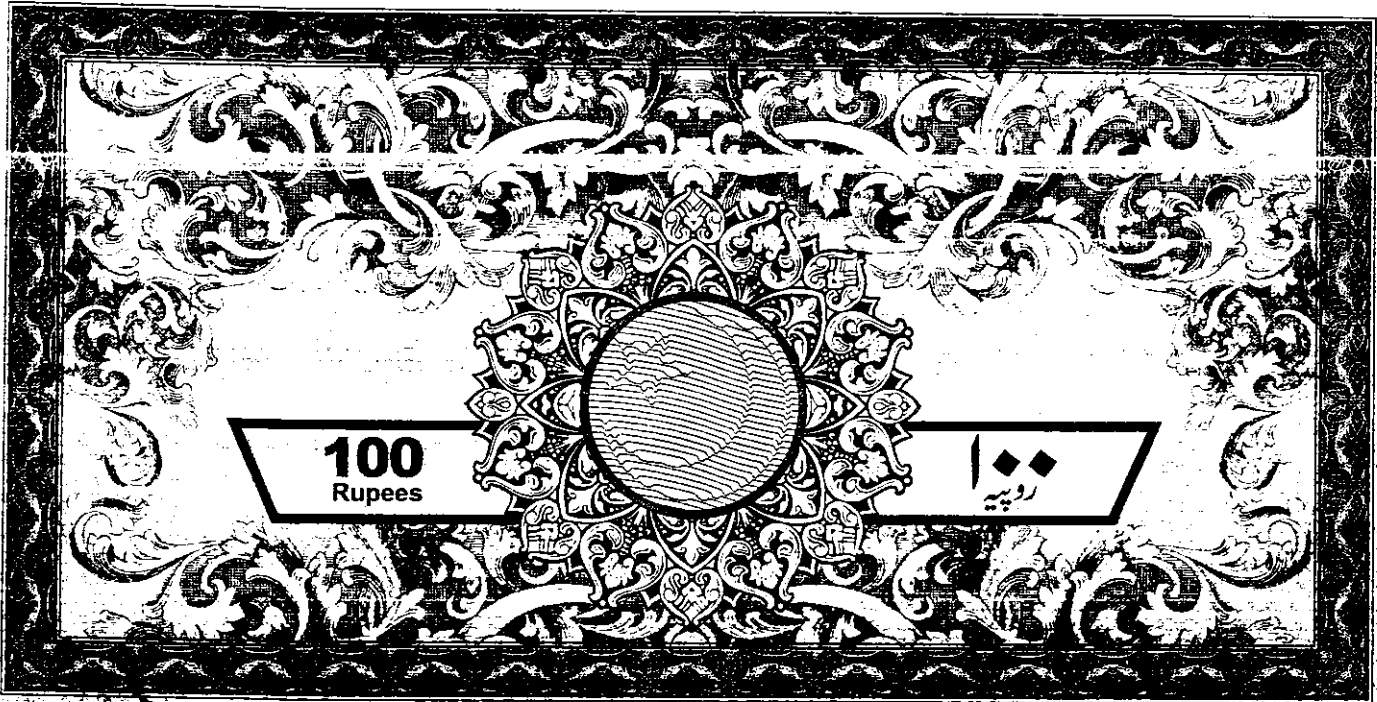
Company Secretary
FFBL Power Company Limited
FFBL Tower C1/C2, Sector-B
Jinnah Boulevard, DHA Phase-II, Islamabad

Lt Col Ali Siddiq (Retd)
Company Secretary



ATTACHMENT VIII

AFFIDAVIT FOR CORRECTNESS OF DOCUMENTS



**BEFORE THE NATIONAL ELECTRIC POWER
REGULATORY AUTHORITY**

AFFIDAVIT

I, Lt Col Ali Siddiq (Retd), S/o Muhammad Siddiq, holding CNIC No. 35302-1977841-9, being the duly authorized representative of FFBL Power Company Limited (FPCL), hereby solemnly affirm and declare on oath that the contents of the accompanying application for Distribution License dated May 26, 2025, including all attached documents-in-support are true and correct to the best of my knowledge and belief and that nothing has been concealed.

DEPONENT

Lt Col Ali Siddiq (Retd)
Company Secretary

Authorized Representative
FFBL Power Company Ltd.

Dated: May 26, 2025

Lt Col Ali Siddiq (Retd)
Company Secretary
FFBL Power Company Limited
Plot No. 1, Tower CNIC2, Sector B
Islamabad, P.O. Box 1000, Islamabad

ATTACHMENT X

ENVIRONMENTAL AND SOCIAL SOUNDNESS ASSESSMENT (ESSA) STUDY

FFBL POWER COMPANY LIMITED (FPCL)

Environmental and Social Soundness Assessment (ESSA)

1. Introduction

FFBL Power Company Limited (FPCL), a wholly owned subsidiary of Fauji Fertilizer Bin Qasim Limited (FFBL), proposes the construction and operation of a new dedicated power distribution line to serve Bulk Power Consumers (BPC). This Environmental and Social Soundness Assessment (ESSA) evaluates potential environmental and social impacts arising from the proposed transmission facility which will supply power to FonGreen Silicon Technologies Limited (FoST).

The transmission line is designed to be laid primarily underground to mitigate environmental and social disruptions, with a short above-ground span over a canal. This ESSA is developed in alignment with national regulatory frameworks, including the Sindh Environmental Protection Act and NEPRA licensing guidelines, as well as international environmental assessment best practices.

2. Project Description

The project involves laying of dedicated transmission line extending from FPCL's coal-based generation facility at Port Qasim, Karachi. The line will deliver uninterrupted power to FonGreen Silicon Technologies Limited (FoST). The entire route lies within industrial zones or FPCL-owned property, with no interference with residential or ecologically sensitive areas. The only deviation from underground installation is a canal crossing, where an above-ground span will be constructed without affecting water flow or local ecology.

3. Environmental Setting and Legal Compliance

The project area lies within a pre-designated industrial zone near the Karachi coastline. The landscape is flat and devoid of forest cover or protected biodiversity zones. FPCL has previously undertaken a comprehensive EIA for its main plant, conducted by M/s Hagler Bailly and approved by the Sindh Environmental Protection Agency (SEPA). The current project does not exceed the scope of the approved EIA and will adhere to all conditions and environmental commitments already established.

There is no requirement for additional land acquisition or change in land use. All activities are in conformity with the Karachi Development Authority's master plan and environmental regulations applicable to industrial development.

4. Environmental Impacts and Mitigation

The environmental impacts associated with this project are expected to be minor and temporary. As the transmission line is underground, impacts are limited to construction-phase nuisances such as dust, noise, and minor traffic disturbances. These will be controlled using standard mitigation measures including water spraying for dust suppression, noise dampening techniques, and routing adjustments to avoid congestion.

FFBL POWER COMPANY LIMITED (FPCL)

The canal crossing will be engineered using corrosion-resistant pylons and environmental clearances will be ensured before construction. No disruption to aquatic flow or sediment transport is anticipated.

5. Social Impact Assessment

The proposed transmission line does not involve resettlement, displacement, or loss of livelihood. The line avoids all residential areas and is routed through utility corridors and industrial land. There are no heritage sites, cultural properties, or vulnerable communities in the vicinity of the route. The project poses no risk of exclusion or discrimination and does not affect any Indigenous People or marginalized groups.

Employment generation during construction will benefit the local workforce. Minor disruptions to traffic or utility access during trenching will be communicated in advance and resolved through engagement with local stakeholders.

6. Stakeholder Engagement

FPCL has a robust stakeholder engagement framework established during the original EIA of the power plant. That framework will be expanded to cover this project. Stakeholders include local government authorities, environmental agencies, and neighboring industrial units. No public opposition is recorded regarding the distribution project. Future engagement will include disclosure of construction timelines, complaint redress mechanisms, and routine updates to SEPA.

7. Health and Safety Considerations

Occupational Health and Safety (OHS) protocols will be strictly enforced during trenching, cable laying, and testing operations. All site personnel will be trained on safety standards, emergency response, and first aid. Personal Protective Equipment (PPE) will be mandatory. Signage, fencing, and warning systems will be installed at the canal crossing site. Construction activities will be scheduled during low-risk hours to minimize hazard exposure to both workers and the surrounding area.

8. Environmental and Social Management Plan (ESMP)

An ESMP will be developed prior to commencement of construction. It will include roles and responsibilities, mitigation measures, monitoring protocols, and corrective actions. FPCL's HSE department will be responsible for ESMP implementation. Routine audits, incident reporting, and compliance documentation will be submitted to SEPA and NEPRA as part of post-licence obligations.

9. Monitoring, Evaluation, and Reporting

Monitoring will cover air quality, noise levels, and trench restoration. Baseline measurements will be established before construction. Weekly reports will be generated during peak activity, followed by monthly reports during the operational phase. Any non-compliance will be addressed within a documented Corrective Action Plan (CAP).

ATTACHMENT XI

SYSTEM STUDIES

FFBL POWER COMPANY LIMITED (FPCL)

System Studies

FPCL has proposed to export power to FoST, starting with an initial requirement of 1 MW, which is projected to increase gradually to 20 MW over the next coming years. To meet this demand, FPCL has proposed the installation of 01 x 11kV feeder in the initial phase. This feeder will cater to the current power requirement, and based on future demand growth, the infrastructure is planned to be expanded to up to 05 x 11kV feeders.

This proposal and system configuration are based on internal technical assessments and planning studies conducted in house by FPCL to ensure reliable and efficient power delivery to FoST over the long term.

To meet the regulatory compliance requirements set forth by NEPRA, FPCL has engaged a qualified and experienced consultant to carry out the necessary system studies. These studies are being conducted in accordance with all applicable NEPRA regulations and standards, including grid code requirements and system reliability criteria. The findings and documentation from these studies will be formally submitted to NEPRA once the work is completed.

FPCL remains committed to ensuring a technically sound and regulatory-compliant power export arrangement that supports FoST's growing energy needs in a phased and sustainable manner.

ATTACHMENT XII

PATROLLING AND INSPECTION PROCEDURES

Patrolling and Inspection Procedures

1. Introduction

To ensure safe, reliable, and uninterrupted electric power supply to Bulk Power Consumer (BPC), FPCL is committed to rigorous preventive maintenance and timely defect identification across its distribution network. The core of this strategy lies in structured **patrolling and inspection procedures**, designed to preempt equipment failures, ensure safety, and uphold regulatory compliance. These procedures apply to all dedicated distribution feeders under FPCL's control, whether underground or overhead, and are implemented under the direct supervision of the Operations & Maintenance (O&M) team.

2. Classification of Patrolling Activities

a. Scheduled Patrolling

Routine inspections conducted twice annually to assess the condition of cable trenches, joint bays, link boxes, earthing points, and terminal ends.

b. Unscheduled Patrolling

Conducted in response to:

- Protection relay operations
- Voltage dips or thermal alarms
- Excavation or construction activities near the route
- Rainfall/flood warnings (to assess trench integrity)

Includes the following types:

- **Incidental Patrolling** – Done during site visits for other O&M purposes.
- **Casual Patrolling** – Following events such as flooding, road excavation, or suspected third-party interference.
- **Emergency Patrolling** – After fault detection, to isolate section and support diagnostics.
- **Night Patrolling (if applicable)** – For terminal/overhead sections to detect thermal glow or hotspots via infrared.

FFBL POWER COMPANY LIMITED (FPCL)

- **Crash Patrolling** – Full trench inspection before peak season or during campaign maintenance.

3. Inspection Procedure

1. Visual inspection of route markers, link boxes, and trench covers along the entire underground cable path.
2. Thermal scanning of terminations, joints, and link boxes using infrared camera (especially before summer season).
3. Check for signs of ground settlement, erosion, exposed ducts, or unauthorized digging.
4. At the canal crossing overhead span, verify insulator condition, conductor tension, clearances, and structure integrity.
5. Use cable route drawings to cross-check segment locations and depth.
6. Record findings with geotagged photos, GPS coordinates, and condition tags.
7. Update the Cable Patrolling & Maintenance Register with findings, defects, and corrective actions.
8. Escalate urgent defects to the O&M Control Room within 2 hours.

4. Equipment and Tools

Inspection Tools:

- Infrared thermal scanner
- Earth resistance tester
- Cable route locator and depth measurement tool
- GPS-enabled handheld logger
- Digital camera with time stamp
- Voltage presence detector for terminations

PPE and Safety Gear:

- Safety boots, gloves, and reflective jackets
- Insulated helmet
- Gas detector (for confined chamber access)
- Fall protection harness (if accessing canal span structure)

FFBL POWER COMPANY LIMITED (FPCL)

- Lockout/Tagout kit and caution signage

5. Documentation and Compliance

- All patrols will be recorded in a Patrol Logbook maintained by the Distribution Maintenance Team.
- Observations requiring shutdowns will be flagged with corrective timelines.
- Emergency patrolling reports will be submitted within 24 hours to the Engineering Lead.
- A quarterly summary of patrolling activities and observed issues will be shared with NEPRA and internal audit.
- Any third-party excavation within 5 meters of the route will trigger a pre-patrol to ensure cable protection.

ATTACHMENT XIII

MAINTENANCE PLANS AND PROCEDURES

Maintenance Plans and Procedures

1. Introduction

The purpose of this Maintenance Plan is to establish a preventive, predictive, and corrective maintenance framework for FPCL's licensed distribution system, comprising dedicated underground and limited overhead infrastructure supplying power to designated Bulk Power Consumer (BPC). FPCL prioritizes reliability, safety, and regulatory compliance in all operational aspects, and this document aligns with industry standards, NEPRA codes, and best engineering practices.

2. Maintenance Framework

2.1 Underground Distribution Line Maintenance

The underground power export line will be maintained through a structured program including routine patrolling, inspection of joints, link boxes, cable terminations, and temperature/stress monitoring:

- **Inspection Frequency:** Biannual inspection; additional inspections post-heavy rain, flooding, or third-party excavation.
- **Key Inspection Elements:**
 - Cable sheath integrity and burial depth
 - Link box condition and earth continuity
 - Heat spots via infrared thermography
 - Marker tape presence and trench backfill condition
 - Terminal box moisture ingress and seal integrity

2.2 Canal Crossing (Overhead Span) Maintenance

For the limited overhead section at the canal crossing:

- Inspect insulators, conductor tension, anti-climbing devices, and clearance compliance.
- Tree trimming near the span conducted annually or as required.
- Ground-level vegetation management to prevent access or line contact.

3. Transformer Maintenance Procedures

FFBL POWER COMPANY LIMITED (FFCL)

- Joints: Partial discharge detection and joint box condition
- Clamp and support integrity
- Anti-vermin measures near terminations

7. Capacitor Bank and Reactive Support Equipment

- Visual inspections for deformation or oil leak
- Check porcelain insulators for cracks and pollution
- Verify earthing and discharge mechanisms
- Periodic insulation resistance testing

8. Maintenance Scheduling and Documentation

All maintenance work shall be:

- Planned and scheduled under the **Maintenance Management System (MMS)**
- Logged in **Maintenance Registers** with date, time, type of intervention, and rectification status
- Supported by **pre- and post-maintenance photographs** where applicable
- Reported monthly to regulatory and internal audit units

9. Safety and Work Permits

- All maintenance activities will be preceded by issuance of a **Proper Work Permit (PWP)**
- Use of PPE (helmet, insulated gloves, harness, arc flash suit) is mandatory
- Shutdown schedules will be pre-approved and coordinated with BPC where applicable
- Lockout/Tagout (LOTO) protocols must be followed for energized equipment

ATTACHMENT XIV

FAULT LOCATION/TROUBLESHOOTING PROCEDURES

FFBL POWER COMPANY LIMITED (FPCL)

Fault Location And Troubleshooting Procedure

FPCL's Operation & Maintenance (O&M) Department shall maintain a qualified and trained team for faulty location and troubleshooting across the underground distribution network. The necessary skills shall be developed through structured in-house and on-job training programs for all technical staff and engineers assigned to fault resolution tasks.

Standardized procedures shall be followed, with key elements as below:

- Technical teams shall be immediately deployed to faulty locations with the required safety gear and tools.
- All safety protocols shall be enforced for personnel and equipment before beginning inspection.
- Equipment for identifying faults in underground cables, transformers, and protection devices should be made available to the teams.
- Qualified engineers shall be assigned for testing relays, breakers, and cable sections as needed.
- Where applicable, automatic isolation of faulty segments shall be triggered through relays or fuses.

Fault Diagnosis Shall Include:

- Checking system load to avoid circuit overloading.
- Inspecting earthing systems across affected segments.
- Checking transformers for signs of overheating or internal stress (carburation).
- Reviewing relay operations for possible mis-trips or under-set conditions.
- Inspecting cables, joints, and terminations for physical or insulation damage.

All fault events shall be recorded, followed by root cause analysis and implementation of corrective and preventive measures.

ATTACHMENT XV

TRAINING AND DEVELOPMENT PROCEDURE MANUALS

Training And Development Procedures Manuals

FFBL Power Company Limited (FPCL), having been engaged in the electricity generation business since 2014, has developed and maintained a competent and professionally trained workforce. The Company's team comprises experienced engineers, technical staff, and commercial professionals with a proven track record in managing reliable and compliant power supply operations.

As part of its internal capacity-building strategy, FPCL follows a structured training and development framework to ensure that all employees are equipped with the knowledge and skills required to meet evolving regulatory, technological, and operational standards in the power sector.

The framework includes:

1. Internal Training Programs

Conducted regularly for technical, operational, and support teams. These sessions focus on system operations, electrical safety, regulatory compliance, preventive maintenance, emergency response, and performance monitoring.

2. External Trainings and Certifications

Participation in relevant industry workshops, licensing courses, and vendor-organized sessions to keep staff updated on modern utility practices, emerging grid technologies, and NEPRA regulatory expectations.

3. Project-Specific Technical Trainings

During new project execution phases or system expansions, FPCL arranges vendor-led and OEM-supported technical training to familiarize operations staff with specific equipment, interfaces, and safety procedures.

4. Continuous Skill Assessment

The Company periodically reviews employee performance and technology shifts to assess training needs, ensuring all capacity-building initiatives remain relevant, focused, and value-driven.

Comprehensive training logs and development records are maintained and reviewed regularly to fulfill both internal policy and external compliance requirements.

FFBL POWER COMPANY LIMITED (FPCL)

This training and development strategy underpins FPCL's continued commitment to safe, efficient, and compliant power distribution operations and is submitted as part of the Distribution Licence application.

Procedures and Manuals

All operational and safety procedures, technical manuals, and standard operating guidelines shall be prepared and maintained to support the training and development of all engineers, technicians, and supervisory staff performing work under the scope of the licensed operations.

ATTACHMENT XVI

INFORMATION IN SUPPORT OF DISTRIBUTION EXPANSION

FFBL POWER COMPANY LIMITED (FPCL)

Information and Documents in Support of Distribution Expansion and Investment

FFBL Power Company Limited (FPCL) seeks a Distribution Licence to support the expansion of its power delivery system to a new Bulk Power Consumer (BPC) via a dedicated under 66 kV underground export network. This initiative is a critical step in diversifying the Company's consumer base, improving system utilization, and enhancing long-term operational sustainability.

1. Scope of Distribution Expansion

The proposed expansion involves the development of new under 66 kV power export line:

- A dedicated underground line (approx. 4 km) to supply power to **FonGreen Silicon Technologies Limited (FoST)**, initially off taking more than 1 MW.

The line will be physically and electrically independent, with one canal-crossing segment to be implemented overhead under controlled clearances.

2. Justification for Expansion

FPCL's primary power buyer, K-Electric, has significantly reduced its offtake since late 2023, resulting in capacity underutilization and adverse financial impact. Simultaneously, the Company's generation infrastructure remains technically capable of supplying additional demand without enhancement of installed generation capacity.

The proposed BPC:

- Represents a strategic national and industrial investment, with FoST classified as a National Strategic Project, and
- Offer long-term load stability that aligns with FPCL's generation design and fuel procurement strategy.

This expansion ensures optimal usage of FPCL's infrastructure while contributing to national energy resilience.

3. Investment and Financing Readiness

The capital investment is planned as follows:

- **FoST Connection:** Estimated CAPEX USD 3.1 million — 100% equity financed by Fauji Group.

FFBL POWER COMPANY LIMITED (FPCL)

Expressions of interest for credit support have already been initiated and recorded, and FPCL has confirmed its ability to undertake the works without external delays.

4. Documentation and Approvals

- **Environmental and Social Soundness Assessment (ESSA)** has been completed, indicating no major impact.
- **System Studies** have confirmed technical viability under the sub-66 kV architecture.
- **Training, O&M, and Protection Protocols** have been established and submitted as part of the Distribution Licence application.

The expansion is fully supported by technical, financial, and organizational readiness. FPCL commits to commence construction immediately upon receipt of licence and associated regulatory approvals.

ATTACHMENT XVII

DISTRIBUTION SYSTEM CONFIGURATION

FFBL POWER COMPANY LIMITED (FPCL)

Distribution System Configuration

1. GENERAL

FFBL Power Company Limited (FPCL), located in the Eastern Industrial Zone of Bin Qasim, Karachi, is a coal-fired cogeneration facility with an installed generation capacity of 118 MW. FPCL currently supplies power to K-Electric and FFBL (Fauji Fertilizer Bin Qasim Limited) and is now expanding its distribution footprint to include new Bulk Power Consumer (BPC) through a dedicated distribution network.

The proposed expansion involves the construction and operation of an independent distribution lines to serve:

- **FonGreen Silicon Technologies Limited (FoST)** – A government-endorsed industrial initiative classified as a National Strategic Project.

The distribution network will be developed exclusively by FPCL as a dedicated, isolated system that does not interface with the national transmission grid.

2. TYPE OF DISTRIBUTION SYSTEM (CONFIGURATION)

The proposed distribution system will operate entirely **below 66 kV**, designed as an underground export network with limited overhead spans only where technically essential (e.g., canal crossings). The system design provides for the below configuration based on technical feasibility, system compatibility, and consumer requirements:

- **11/13.8 kV Transmission Voltage**
 - Dedicated **11/13.8 kV underground feeders** will originate from FPCL's 11/13.8 kV switchgear.
 - Feeders will terminate at BPC battery limits, where metering, protection, and interface equipment will be installed.
 - Intermediate joint bays, link boxes, and sectionalizing points will be installed to maintain system serviceability.
 - 11/13.8 kV kiosk-type transformers may be installed at the consumer end where required for internal distribution.

FFBL POWER COMPANY LIMITED (FPCL)

All civil and electrical works related to the distribution system including trenching, cable laying, joining, and terminations shall be completed by FPCL under a centralized control and monitoring plan. Standard operating procedures, emergency restoration systems, and digital metering infrastructure shall be integrated as part of the licensee's operational protocol.

The proposed configurations offer flexibility, technical redundancy, and scalability to accommodate future BPCs while maintaining reliability and full regulatory compliance.

ATTACHMENT XVIII

SERVICE TERRITORY, RIGHT OF WAY, AND FEEDER MAPS

FFBL POWER COMPANY LIMITED (FPCL)

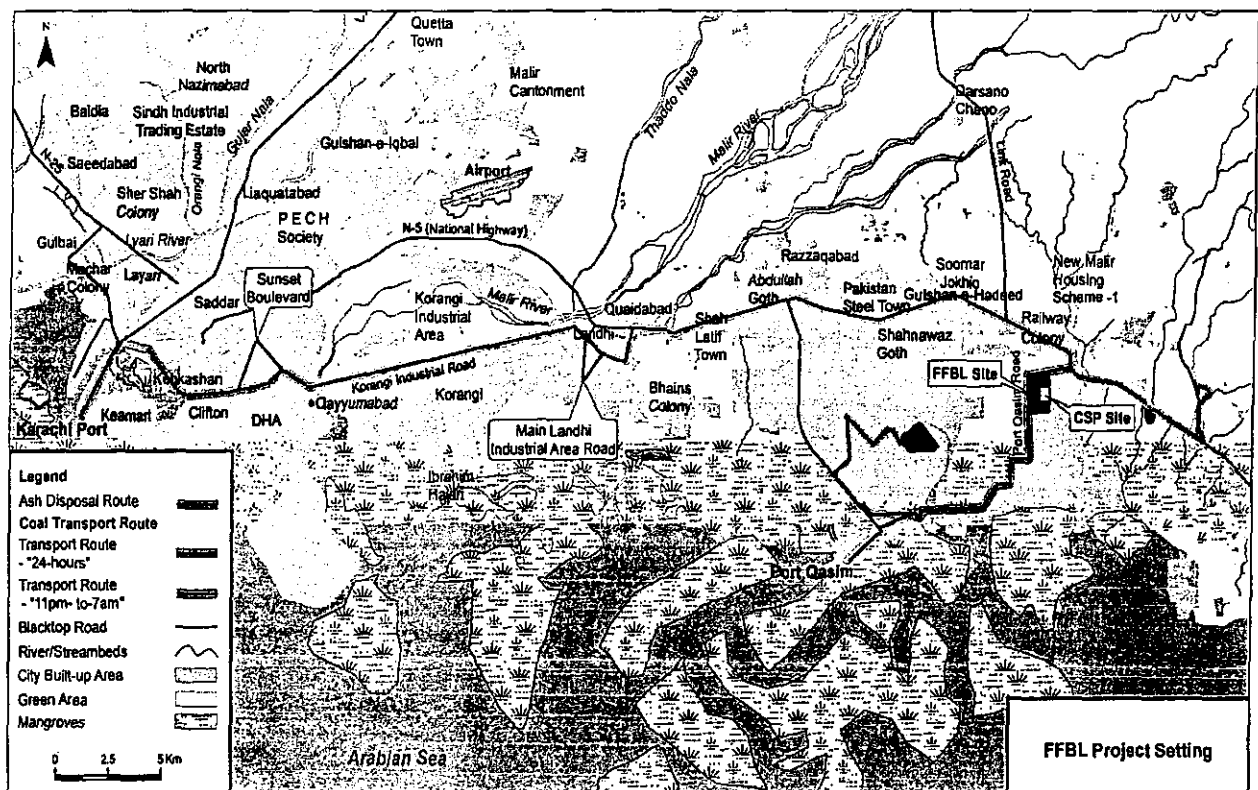
Service Territory, Right Of Way, and Feeder Maps

SERVICE TERRITORY

The proposed service territory is located in:

- Country: Pakistan
- Province: Sindh
- Zone: Eastern Zone
- Area: Bin Qasim, Karachi

This area encompasses the operational and facility sites of identified Bulk Power Consumers situated within the Eastern Zone of Bin Qasim. The infrastructure and energy delivery systems are exclusively designed for these commercial and industrial premises.



RIGHT OF WAY

FFBL Power Company Limited (FPCL) is in the process of securing all necessary approvals for Right of Way (ROW) required for the construction and operation of

FFBL POWER COMPANY LIMITED (FPCL)

dedicated transmission lines associated with the proposed Electric Power Supply and Distribution License projects.

Applications for Right of Way have been formally initiated with the concerned authorities, namely the Port Qasim Authority (PQA) and the National Highway Authority (NHA). The approvals from these authorities are currently under process. Once obtained, certified copies of the approved ROW documents shall be made available to the Honorable Authority for record and compliance purposes.

FEEDER MAPS

In addition, detailed Single Line Diagrams (SLDs) depicting the proposed transmission routes, interconnections, and system configuration have been prepared and are attached herewith as part of this submission.

ATTACHMENT XIX

VOLTAGE LEVELS AND REGULATION

FFBL POWER COMPANY LIMITED (FPCL)

Voltage Levels and Regulation

The voltage levels and regulation for FPCL's proposed dedicated underground distribution system shall conform to the applicable provisions of the NEPRA Performance Standards (Distribution) Rules and relevant engineering codes.

Medium Voltage Levels

The system will operate at a medium voltage level of **11/13.8 kV**, depending on project-specific design finalization and the load requirements of the Bulk Power Consumer (BPC).

Power Losses and Power Factor

- **Distribution losses** will be maintained within:
 - **+3%** for medium voltage systems
 - **+8%** for low voltage feeders
- **Power Factor (PF)** shall be maintained at **not less than 0.90 lagging**, through reactive power management and appropriate capacitor sizing where required.

FPCL commits to implementing necessary voltage regulation equipment, protection devices, and monitoring tools to ensure that these performance criteria are maintained consistently across its dedicated distribution network.

ATTACHMENT XX

TYPE OF DISTRIBUTION SYSTEM

FFBL POWER COMPANY LIMITED (FPCL)

Type Of Distribution System

FFBL Power Company Limited (FPCL) proposes a dedicated underground power distribution system designed to serve specific Bulk Power Consumer (BPC) from its existing coal-based generation facility located in Bin Qasim, Karachi. The distribution network will be isolated from the national grid and shall operate entirely below 66 kV, in full compliance with NEPRA's regulatory framework.

System Characteristics

- The system will operate at **medium voltage level**, with the following configuration option under consideration:
 - **11/13.8 kV** distribution voltage
- The network will comprise **underground XLPE-insulated cables**, sized according to load and distance requirements.
- Cable routing will include direct buried and protected trench arrangements, with limited overhead spans only at necessary crossings (e.g., canal).

Connection Arrangement

- BPC will be connected through a **dedicated feeder** from FPCL's existing switchgear system.
- Terminal equipment such as **VCBs, metering panels, or RMUs** may be installed at the BPC intake as needed.
- Where low-voltage distribution is required within consumer premises, step-down transformers may be used at intake locations.

Protection and Control

- Standard protection equipment (breakers, relays, isolators) will be installed at appropriate points.
- FPCL will ensure proper earthing, safe isolation procedures, and voltage regulation within the NEPRA-defined limits.

This system is designed to ensure high reliability, ease of maintenance, and operational safety, with all technical parameters aligned to NEPRA's distribution and performance standards.

ATTACHMENT XXI

LINE EQUIPMENT CHARACTERISTICS

FFBL POWER COMPANY LIMITED (FPCL)

Line Equipment Characteristics

The proposed distribution system operated by FPCL shall consist of underground medium voltage lines and associated equipment designed to ensure safe, reliable, and efficient delivery of power to designated Bulk Power Consumer (BPC). The system will operate at 11 kV/13.8 kV, depending on technical compatibility and end-user requirements.

All materials and equipment will be procured from approved local or international manufacturers, and will conform to generally accepted electrical standards applicable in Pakistan.

Key Equipment Components Include:

- **Underground Medium Voltage Cables:** Armored or unarmored power cables suitable for distribution voltages, laid as per route and site conditions.
- **Cable Accessories:** Jointing and termination kits compatible with the selected cable type, with appropriate insulation and protection.
- **Switchgear and Protection Devices:** Medium voltage breakers, isolators, and metering panels at source and consumer end, installed as per safety and operational needs.
- **Earthing Systems:** Standard earthing arrangements at all connection and termination points to ensure operational and personnel safety.
- **Metering Interface:** MV-level metering panels or equipment to be installed at the BPC intake, as per regulatory and contractual requirements.

The selection of equipment will be based on technical suitability, ease of maintenance, and regulatory compliance. FPCL may opt for locally manufactured equipment (e.g. from established Pakistani vendors) or international suppliers, including Chinese OEMs, depending on availability, cost, and project schedule.

ATTACHMENT XXII

POWER QUALITY CONTROL

FFBL POWER COMPANY LIMITED (FPCL)

Power Quality Control

1. General Philosophy

FFBL Power Company Limited (FPCL) is committed to delivering consistent, reliable, and high-quality electric power to its Bulk Power Consumer (BPC) through a dedicated sub-66 kV underground distribution network. The system is designed and will be operated in accordance with NEPRA Performance Standards (Distribution), IEC/IEEE best practices, and established utility norms.

2. Voltage Levels and Regulation

The distribution system shall operate at 11 kV/13.8 kV, depending on technical requirements and final load assessment. FPCL will maintain voltage regulation within standard limits at the consumer delivery point under both normal and contingency conditions. Regulation will be ensured through appropriate conductor sizing, system design, load balancing, and switching protocols.

- **Voltage Deviation Limits:** Maintained within $\pm 5\%$ under normal conditions
- **Contingency (N-1) Tolerance:** Not exceeding $\pm 10\%$ where applicable

Tap changers and sectionalized protection systems will assist in maintaining voltage stability across feeders.

3. System Losses

System design aims to minimize I^2R losses through:

- Short, radial underground cable runs
- Efficient conductor sizing
- Load management and switching control

Losses will be monitored periodically and compared against accepted benchmarks, with corrective actions initiated if variances are observed beyond tolerable thresholds.

4. Power Factor Control

FPCL will maintain system power factor (PF) above 0.90 lagging under typical loading conditions. While PF correction is not initially required due to the isolated nature of the system, provision for

FFBL POWER COMPANY LIMITED (FPCL)

reactive power compensation (e.g. capacitor banks or filters) is reserved should harmonic-producing or inductive loads increase at the BPC level.

5. Frequency Management

FPCL's generation blocks operate in both 50 Hz and 60 Hz systems, each isolated and feeding specific loads. Frequency stability will be maintained via internal governor and turbine control logic. Under normal operation, frequency variation will be maintained within ± 1 Hz of nominal.

6. Harmonic Distortion

System harmonics will be monitored and controlled in line with IEEE 519 guidelines. Load-side harmonic injection shall be the responsibility of the BPC. FPCL may require installation of mitigation equipment such as passive or active harmonic filters if excessive distortion ($>5\%$ THD) is observed.

7. Reliability and Equipment Loading

Distribution components including cables, breakers, transformers, and terminals will be selected based on peak demand and redundancy allowances. Transformers will be derated in accordance with ambient and load-cycle conditions. Loading shall not exceed equipment nameplate ratings unless otherwise tested and certified.

8. Monitoring and Compliance

A periodic **Power Quality Audit** shall be conducted, and logs maintained for:

- Voltage fluctuations
- Load unbalance
- Transient events
- System outages
- Frequency excursions

Where applicable, SCADA-enabled metering will allow for near real-time monitoring at the feeder level.

9. Corrective Measures

In the event of deviation from standard power quality benchmarks, FPCL will initiate:

- Load shifting or redistribution
- Tap setting adjustments

FFBL POWER COMPANY LIMITED (FPCL)

- Isolation of defective feeders or sections
- Corrective maintenance of transformers or switchgear
- Coordination with BPC for internal rectification if required

This Power Quality Control framework forms part of FPCL's Distribution Licence Application and will be adhered to in both system design and operational phases.

ATTACHMENT XXIII

BACK-UP/EXPRESS FEEDER PROVISION

FFBL POWER COMPANY LIMITED (FPCL)

Back-Up / Express Feeder Provision

The power generation and distribution framework at FPCL is designed in accordance with the N-1 contingency principle to ensure continuous and uninterrupted supply to all connected consumers, particularly Bulk Power Consumer (BPC).

At the core of this reliability model is FPCL's dual boiler configuration. The power plant operates two Circulating Fluidized Bed (CFB) boilers, both connected to a common steam header. This setup provides inherent redundancy in steam generation, ensuring that if one boiler becomes non-operational due to maintenance or unforeseen technical issues, the other boiler can continue supplying sufficient steam to sustain power generation.

The common steam header plays a critical role in maintaining operational flexibility and load management across the connected steam turbines. This integrated configuration allows for immediate load takeover and eliminates single-point failure risks at the generation stage.

By incorporating boiler-level redundancy into its infrastructure, FPCL maintains system stability, avoids supply disruptions, and ensures that power delivery to consumers remains unaffected even during partial outages within the generation facility.

ATTACHMENT XXIV

ACCIDENT PROTECTION AND PREVENTION PROCEDURES

Accident Protection And Prevention Procedure

- Standard Operating Procedures (SOPs) for the operation and maintenance of all electrical equipment will be prepared and implemented.
- Safety protocols will be developed in line with the respective voltage levels, including medium voltage (11 kV / 13.8 kV) and low voltage distribution.
- All operational and maintenance personnel will be provided with complete sets of personal protective equipment (PPE) and safety gear.
- Each installed equipment unit will be clearly tagged and labeled to prevent inadvertent operation or accidental contact.
- Earthing systems for all equipment will comply with international standards such as IEC and IEEE to ensure personnel safety and system grounding integrity.
- Formal documentation for handing over and taking over equipment during maintenance or shutdown periods will be developed and enforced.
- Asset maintenance and tracking will be supported by SAP or a similar plant maintenance software system.
- Written notifications will be mandatory for planned shutdowns required for maintenance or operational tasks on any system component.
- Clear communication protocols will be established for both de-energization and re-energization procedures post-maintenance.
- All switching operations will be logged in site registers, including timestamps and responsible personnel, to enhance traceability and accountability.
- SOPs will specify roles and responsibilities of all team members involved in system operation and maintenance.
- Proper safety signage and hazard indicators will be installed across all operational areas.
- All underground cables will be marked with visible UG cable markers on the ground surface.
- Operational and maintenance areas will be secured to prevent unauthorized access.

FFBL POWER COMPANY LIMITED (FPCL)

- Fire extinguisher systems, both manual and automated, will be installed at critical equipment locations such as transformers and control rooms.
- Power transformers will be equipped with automatic fire suppression systems to mitigate fire hazards.
- Underground earthing mesh systems will be installed to manage step and touch voltages, maintaining safe thresholds.
- Fire safety training sessions will be conducted periodically for all operational and maintenance personnel.
- Adequate lighting will be ensured in all indoor and outdoor operational zones to avoid accidents due to poor visibility.
- All accident protection protocols will adhere to the NEPRA Distribution Code and relevant local regulations.
- Comprehensive health and safety policies will be developed and implemented to safeguard employees and visitors.
- Equipment testing schedules will be integrated with SOPs to detect faults early and prevent potential accidents.
- Physical barriers and fencing will be placed around high-voltage and sensitive installations to restrict access.
- A Preventive Maintenance (PM) and Annual Maintenance (AM) plan will be developed and executed to minimize the risk of failures or safety incidents.

ATTACHMENT XXV

EMERGENCY PROVISIONS

Emergency Provisions

Emergency provisions and protocols for electrical systems are designed to ensure the safety of personnel/equipment and mitigate the risks during emergency situations. Following measures shall be taken to implement emergency protocols and procedures:

a. Emergency Contact No.

All vital areas shall have emergency contact numbers displayed for ease of communication by anyone noticing any emergency situation or hazard.

b. Emergency Response Team

Emergency response team shall be made available 24/7 to encounter any emergency situation in least time.

c. Fire Tenders

Fire tenders with appropriate firefighting equipment shall be maintained in readiness to reach affected sites promptly under the supervision of the safety department.

d. First Aid Service

First aid facilities, including basic medical support and access to ambulance services, shall be part of the emergency provision plan.

e. Communication

All emergency vehicles and response teams should be equipped with wireless communication systems to enable fast coordination and action.

f. Emergency Exits

All buildings and technical rooms associated with the distribution facility shall ensure the provision of emergency exits for the safety of personnel.

g. Emergency Response Plan

An emergency response plan, outlining procedures to be followed during electrical emergencies, shall be implemented. This includes communication protocols, evacuation procedures, and contact details for emergency services.

FFBL POWER COMPANY LIMITED (FPCL)

h. Emergency Maintenance Shut Down Plan

Clearly defined protocols shall be established for isolating or shutting down specific sections of the electrical system during emergency maintenance, minimizing hazards and protecting system integrity.

i. Fire Alarm System

Fire alarms will be installed in all operational areas, supplemented with smoke and/or thermal detectors to trigger automatic alerts for evacuation and intervention.

j. Regular Maintenance and Safety Inspections

Routine inspections and preventive maintenance of all system components shall be carried out to detect potential hazards and mitigate emergency risks.

k. Emergency Power Off

Emergency shutdown switches shall be installed in accessible areas, allowing for immediate disconnection of power in critical situations.

l. Emergency Lighting

Battery-operated lights or generator-backed lighting systems shall be provided to maintain visibility during power outages or blackouts.

m. Back-up Power Sources

Emergency generators and/or battery back-up systems shall be integrated into the facility's infrastructure to ensure essential operations can continue during extended outages.

ATTACHMENT XXVI

PROTECTION, CONTROL, AND MEASURING INSTRUMENTS

FFBL POWER COMPANY LIMITED (FPCL)

Protection, Control and Measuring Instruments

1. Protection and Control

Protection and control will be implemented using protection relays and devices in accordance with NEPRA standards and applicable IEC/IEEE guidelines. The system will ensure reliable fault detection, isolation, and operational continuity across the network.

2. MEASURING INSTRUMENTATION

All critical Feeder and offtake nodes will be equipped with metering and monitoring instruments. These include digital ammeters, voltmeters, kWh meters, power factor meters, and energy analyzers, all conforming to NEPRA and IEC/IEEE standards. The metering systems will facilitate smart energy accounting.

ATTACHMENT XXVII

TYPE OF METERING SYSTEM TO BE USED

FFBL POWER COMPANY LIMITED (FPCL)

Type of Metering System to be Used

All of the metering systems to be installed will comply with the stipulations of the NEPRA Grid Code, NTDC specifications, and relevant IEC Standards. These include, but are not limited to, standards such as DDS-50, DDS-60, DDS-65, IEC 62052-11, and IEC 62052-22.

The exact metering configuration for the project, including CT/PT ratios, communication protocols, and integration with billing systems, will be finalized during the implementation phase. The detailed metering scheme shall be submitted to the Authority for review and approval when required.

ATTACHMENT XXVIII

METERING INSTALLATION AND TESTING FACILITIES

Metering installation and Testing Facilities

1. Metering Installation

The metering system for the distribution network shall be specifically designed to serve a Bulk Power Consumer (BPC), namely FonGreen Silicon Technologies Limited (FoST). Metering installations will adhere to the guidelines set forth by NEPRA in the CSM-21 and other applicable standards.

Meters will be installed at the respective take-off points of a BPC, ensuring ease of access for authorized personnel. Each metering point shall be located in a secure, visible, and tamper-proof location, at an appropriate height, and outside the consumer facility boundary to facilitate clear access for inspection and meter reading without disruption to either party.

All installations will be carried out using standardized equipment and methods to ensure high accuracy, safety, and data integrity.

2. Testing Facilities

All energy meters to be deployed for BPC will be pre-tested and calibrated in accordance with approved testing procedures using certified equipment and laboratories. The objective is to ensure that all installed meters meet NEPRA's accuracy and compliance requirements.

In addition to pre-installation testing, FPCL will establish on-site testing protocols and engage qualified technical staff to verify metering performance periodically or upon complaint.

In the event of any discrepancy reported by a BPC regarding energy consumption, the existing installed meter shall not be disturbed. Instead, a parallel check meter will be installed temporarily to validate the readings and determine any deviation or fault.

Comprehensive records of all meter installations, calibration certificates, and performance checks will be maintained as part of the distribution licensee's compliance documentation.

This metering setup ensures accurate measurement, transparent billing, and technical reliability across both consumer points in the distribution network.

ATTACHMENT XXIX

COMMUNICATION SYSTEMS

FFBL POWER COMPANY LIMITED (FPCL)

Communication Systems

A centralized communication and control system will be established to support operations, outage coordination, fault reporting, and system health monitoring. The system will be designed to match the existing operational scale while allowing for scalability.

1. System Overview

A centralized communication and control system will be established to support operations, outage coordination, fault reporting, and system health monitoring. The system will be designed to match the existing operational scale while allowing for scalability.

3. Metering Communication

All meters installed at FoST will be digital static meters compatible and capable of:

- Remote reading and periodic data export.
- Recording active, reactive, and apparent power along with power factor and energy usage.
- Sending data over secure LAN, fiber, or GPRS, depending on site infrastructure.

4. Control Room Communication

A centralized control room at FPCL will be responsible for:

- Coordinating outages, maintenance windows, and load dispatch.
- Communicating with BPC focal points via:
 - Dedicated landlines and mobile phones.
 - Email alerts and notices.
 - Instant messaging (e.g., WhatsApp) during urgent events.

5. Data Handling and Logging

- All events and system readings will be logged through digital monitoring system.
- Manual shift logs will also be maintained for redundancy.
- Logs will be reviewed for preventive maintenance and compliance documentation.

6. Alarms and Notifications

FFBL POWER COMPANY LIMITED (FPCL)

The system will generate visual and audible alarms for:

- Voltage sags or surges.
- Frequency deviations.
- Communication loss.
- Breaker/fuse operations or faults.

Alarms will be configured to prompt field teams and operations supervisors for rapid response.

7. Cybersecurity and Access

- Access to monitoring and communication systems will be restricted to authorized personnel.
- User roles and credentials will be managed internally by FPCL IT/OT teams.
- Remote access, if needed, will be secure and limited to VPN-based connections.

8. Future Readiness

The system is scalable to accommodate additional BPC or integration with utility-level monitoring frameworks. Advanced features (load forecasting, demand response) may be introduced as operational needs evolve.

ATTACHMENT XXX

SECP CERTIFICATE OF INCORPORATION



SECURITIES AND EXCHANGE COMMISSION OF PAKISTAN

1st Floor SLIC Building No.7, Blue Area,
Islamabad

CERTIFICATE OF INCORPORATION

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

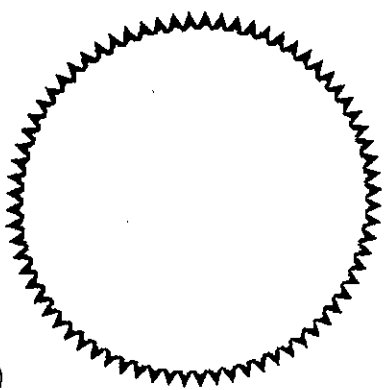
Corporate Universal Identification No. 0088996

I hereby certify that **FFBL POWER COMPANY 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 Islamabad this 27th day of June, Two Thousand and Fourteen.

Fee Rs. 16,272,000/-


(Shaukat Hussain)
Additional Registrar of Companies



No. ADI 12301
Dated 20/6/14

ATTACHMENT XXXI

SERVICE TERRITORY

FFBL POWER COMPANY LIMITED (FPCL)

Proposed Service Territory

FFBL Power Company Limited proposes to supply electric power exclusively to **Bulk Power Consumers (BPCs)** within a defined and limited service area. The scope of supply is restricted to specific commercial and industrial consumers under direct agreements, in accordance with NEPRA's regulations governing bulk power supply.

2. Geographic Area

The proposed service territory is located in:

- **Country:** Pakistan
- **Province:** Sindh
- **Zone:** Eastern Zone
- **Area:** Bin Qasim, Karachi

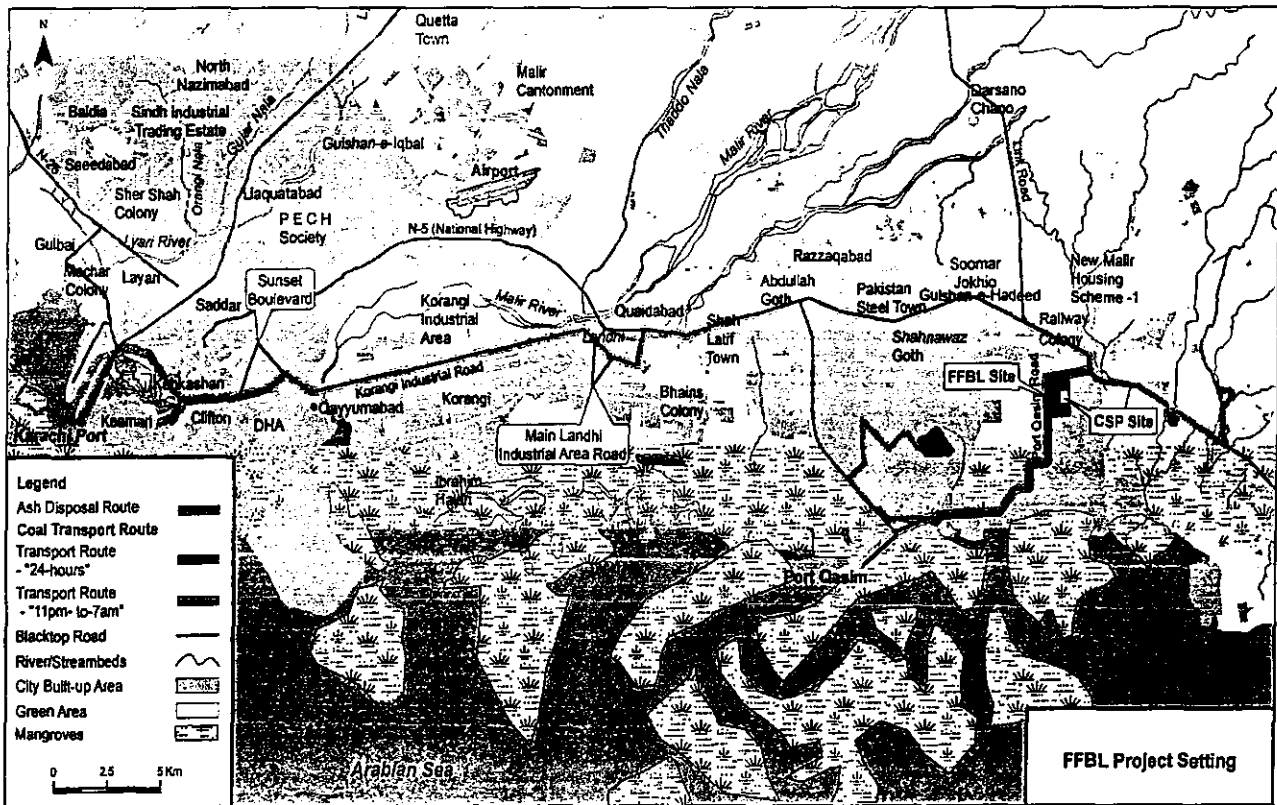
This area encompasses the operational and facility sites of identified Bulk Power Consumers situated within the Eastern Zone of Bin Qasim. The infrastructure and energy delivery systems are exclusively designed for these commercial and industrial premises.

3. Service Limitations

- The service territory includes **only Bulk Power Consumers** with whom FFBL Power Company Limited maintains formal supply agreements.
- No electricity will be supplied to **residential, agricultural, or general public consumers**.
- All power delivery will occur via **dedicated feeders and metering systems**, consistent with applicable technical and regulatory standards.

FFBL POWER COMPANY LIMITED (FPCL)

4. Site map



5. Regulatory Commitment

FFBL Power Company Limited undertakes:

- Not to extend its supply operations beyond the defined Eastern Zone, Bin Qasim, without obtaining **prior written approval from NEPRA**.
- To operate within the bounds of its approved license and adhere strictly to NEPRA's regulatory framework for bulk power supply.

ATTACHMENT XXXII

MINIMUM SOLVENCY REQUIREMENTS FULFILMENT

FFBL POWER COMPANY LIMITED (FPCL)

Minimum Solvency Requirements

Sr. No.	Requirement	Remarks
1	shall have and maintain minimum long-term credit rating of "A" from a credit rating agency licensed by the SECP and submit a report to the Authority at the time of application	Long term rating of FPCL is "AA". Rating report of "VIS Credit Rating Company Ltd" is attached.
2	shall have and maintain minimum current ratio of 1:1	Current ratio of FPCL as on Dec 31, 2024 is "1.15". Please refer to Audited FPCL Financial Statements for the year ended Dec 31, 2024.
3	shall have minimum paid-up capital of one hundred and fifty million rupees; and	Paid up capital of FPCL as on Dec 31, 2024 is PKR 8,587 Mn. Please refer to Audited FPCL Financial Statements for the year ended Dec 31, 2024.
4	shall have and maintain minimum net worth of five hundred million rupees:	Net worth of FPCL as on Dec 31, 2024 is PKR 27,645 Mn Please refer to Audited FPCL Financial Statements for the year ended Dec 31, 2024.

ATTACHMENT XXXIII

MINIMUM TECHNICAL AND HUMAN RESOURCE FULFILMENT

Curriculum Vitae

**Muhammad Nauman
Younas**

Position

Chief Operating Officer (COO)

Qualification

EMBA - SZABIST-Islamabad
BE. (Mechanical) - UET Lahore

Highlight of Skills

Knowledge & working experience of complete Services and Contracts Management, Experienced in developing maintenance procedures, quality control procedures. Understanding of hazardous process environment & work permit procedures. Understanding of IMS implementation & compliance (ISO 9001, 14001, 18001) Familiar with ASME / ASTM / API / TEMA standards Resource Management and Team work. Good communication and presentation skills.

Professional Summary

A seasoned professional with diverse experience in maintenance planning, contracts management, field maintenance, project management, construction, turnaround maintenance, and business process re-engineering. Currently serving as Chief Operating Officer (COO) of FPCL, leading the operations of a 118 MW coal-based co-generation power plant. Previously, held key roles at Fauji Fertilizer Bin Qasim, including over eight years as a Maintenance Coordinator, ensuring smooth O&M execution. A results-driven and disciplined leader with a strong technical and business acumen, actively contributing to safety forums, risk assessments, and HAZOP teams. Experienced in CMMS, SAP, and aligning technical strategies with business objectives. Thrives in challenging environments, driving operational excellence and efficiency.

Experience Details

July 2014 – Present

FFBL Power Company Limited

- Currently serving as Chief Operating Officer (COO) at FPCL, overseeing the operations and strategic growth of the 118 MW coal-based co-generation power plant. Previously led the Coal Power Plant (CPP) Project as Project Manager, playing a key role in its development from inception to execution. Expertise includes strategic planning, regulatory compliance, contract negotiations, technology selection, financial modeling, and team building. Manages overall plant performance, operational efficiency, and business expansion while ensuring compliance with industry standards and regulatory requirements.

Mar 2008 ~ June 2014) Head Office Fauji Fertilizer Bin Qasim Ltd.

Staff Manager – New Business Ventures.

Job Assignment Includes:

- Identification of the new projects for strategic investment, business expansion and diversification. The spectrum of new ventures not only includes projects at National level but also Direct Investment in foreign ventures as well. Monitor and apprise management on plant's performance i.e. FFBL plant at Bin Qasim Karachi and Phosphoric acid plant at Morocco.

- Suggest improvement in company business operations. Review of annual business plans. Selection/ Hiring of Technical personnel. Support to other departments.

Jan 1998 ~ Mar 2008 Plantsite Fauji Fertilizer Bin Qasim Ltd (FFBL).

Worked on Balancing, Modernization and Revamp of Ammonia plant for sustained & increased production to 1570 MTPD from its existing capacity of 1270 MTPD (50 million dollars Project). Carried out Engineering, RFQ's preparation, vendor selection, inspection visits to vendor workshop and supervision of erection activities. Lead the team to carry out major revamp of Primary Reformer along with erection of two air blowers (K-1001A/B) including design and engineering of various equipment.

Also worked as Machinery Maintenance Engineer in different areas i.e. DAP, Bagging, Urea, Ammonia and Utilities in different capacities and as area head ammonia machinery to execute major modification jobs on Synthesis Compressor, Air Compressor Turbines and Ammonia Compressors.

May 1993 ~ Nov. 1997) Pak-Arab Fertilizer Ltd. Multan

Worked as Area Engineer in Compressor and Turbine Department, responsible for the smooth running of over 100 rotary machines. During the tenure worked on revamping of the Reforming Furnace at Ammonia plant in coordination with KELLOGG VSM.

Technical Training

- Auditing of IMS system by Pakistan Institute of Quality Control.
- Hands on Training on Flame Metallizing Techniques for the internal repair of pressure vessels by DONEGANI ANTICROSSIONE, ITALY.
- Attended Workshop on Alloying Material for Furnace Tubes in Kuala Lumpur by Schmidt & Clemens.
- Maintenance Management
- HSEQ Mngt. System - Internal Audit Course.
- SAP Plant Maintenance Academy Training.
- Occupational Health & Industrial Hygiene.

Management Courses

- Problem solving and Decision making Techniques by Pakistan Institute of Management Sciences.
- Effective Presentation Skills by FFC
- High Performance Manager
- Problem Solving & Decision Making
- Occupational Health & Industrial Hygiene
- Leadership Skills
- Maintenance Management
- Finance for Non-finance Manager
- Project Management

<p>Hyses / Aspen Plus / HTFS</p> <p>Knowledge and understanding of Plant Monitoring, controlling & Troubleshooting</p> <p>Resource Management and Team work.</p> <p>Good communication and presentation skills.</p>	<p>reliability and performance of the 118 MW coal-based cogeneration plant. Responsibilities include:</p> <ul style="list-style-type: none"> - Managing plant maintenance strategies to ensure operational efficiency. - Conducting technical evaluations and root cause analysis of equipment failures. - Overseeing maintenance planning, budgeting, and execution of shutdowns. - Coordinating with multi-package contractors and vendors for technical solutions. - Ensuring compliance with industry standards and best practices for plant reliability. 	<p>Process Engineer (Jan 1997 – Dec 2006)</p> <ul style="list-style-type: none"> - Worked on the engineering, design, erection, and startup of the FFBL Fertilizer Complex. - Evaluated engineering designs for compliance with standards and contractual requirements. - Led the revamp of the Ammonia plant, increasing production from 1270 MTPD to 1570 MTPD (\$50 million project). - Conducted equipment performance evaluations, process simulations, and efficiency calculations. - Managed process improvements, plant modifications, and implementation of new technologies.
<p><u>Certificates & Trainings</u></p> <ul style="list-style-type: none"> - Writing for Results & Communication Skills by Institute of Training & Consultancy. - Integrated Management System (IMS) "ISO 9001:2000, ISO 14001:2004 and OHSAS 18001:2007" by BQI. - Health, Safety & Environment related programs and training at FFBL including Fire Fighting, Emergency Handling, Acid Handling, First Aid and Dry Run activities. - SAP Plant Maintenance Academy Training. - Problem solving and Decision making Techniques. - Effective Presentation Skills - High Performance Manager - Leadership Skills 	<p><u>Experience Details</u></p> <p>FFBL Power Company Limited (FPCL)</p> <p>Senior Manager – Maintenance (2017 – Present)</p> <ul style="list-style-type: none"> - Leading the maintenance division of the 118 MW coal-based cogeneration power plant. - Developing and implementing maintenance strategies to ensure plant reliability and efficiency. - Conducting root cause analysis of equipment failures and unplanned shutdowns. - Managing maintenance planning, budgeting, and execution of planned shutdowns. - Coordinating with contractors and vendors to optimize plant performance. 	

Curriculum Vitae	Professional Summary	Project Engineer – Coal Power Plant Installation (2014 – 2017)
Mahboob Ahmed	A professional having vast experience in the field of Power Plants, Chemicals Process Plants and their associated Utilities, development of basic concepts, Basic Engineering Design, Detailed Engineering Design, field execution, field verification, functional and performance test execution of troubleshooting, testing, commissioning and projects handling. Highly motivated with 17 years of diversified experience in power and fertilizer plants in leading roles. Leading the Engineering team of Fauji Power Company limited (FPCL), wholly owned subsidiary of Fauji Group, developing 118 MW Coal power plant. Result oriented and disciplined engineer, an active team player along with impressive educational and proven professional track record. Comfortable with business and technical perspectives and understands their convergence. Member of different safety forums, risk assessment and HAZOP teams. Experienced in using CMMS & SAP. Comfortable with business and technical perspectives and understands their convergence. Possess good learning capabilities and enjoy working in a challenging Environment.	<ul style="list-style-type: none"> - Played a key role in the installation and commissioning of the 118 MW coal power plant. - Managed engineering activities, ensuring compliance with industry standards and project timelines. - Coordinated with EPC contractors for equipment procurement, installation, and startup.
Position		
Senior Manager- Maintenance		
Qualification		
BE. (Chemical) - UET Lahore		
Highlight of Skills		
Responsible awareness of safety practices in chemical / industrial complex.		
Understanding of hazardous process environment & work permit procedures.		
Knowledge, understanding & working experience in ERP environment (SAP).		
Understanding of IMS implementation & compliance (ISO 9001, 14001, 18001)		
Proficient in Technical Reviews, evaluations, Drawing technical conclusions		
Understanding of Process Engineering Calculations & proficient in use of		

**Fauji Fertilizer Bin Qasim Limited (FFBL)
Unit Manager – Process (Jan 2007 – Dec 2013)**

- Led the process engineering team for Urea, DAP, Ammonia, and Utilities plants.
- Monitored and optimized plant performance, resolving technical issues and improving efficiency.
- Evaluated plant modification requests, conducted feasibility studies, and implemented process improvements.
- Conducted root cause analysis for incidents and ensured timely resolution.
- Developed and implemented process packages and modifications to enhance plant performance.
- Acted as Department Safety Coordinator, ensuring compliance with safety procedures.
- Prepared performance reports, highlighting key operational indicators.

Curriculum Vitae	Professional Summary	
Muhammad Kashif Jamii	A professional having vast experience in the field of electrical Power generation, maintenance execution, troubleshooting, testing, commissioning and projects handling. Result oriented and disciplined engineer, an active team player along with impressive educational and proven professional track record. Comfortable with business and technical perspectives and understands their convergence. Posses good learning capabilities and enjoy working in a challenging environment.	Mar 2003 – Dec 2004 – Fauji Fertilizer Bin Qasim Ltd (FFBL), Karachi, Pakistan. As Co-ordination Engineer at Fauji Fertilizer Bin Qasim Ltd., Karachi, Pakistan.
Position		Basic Responsibilities:
Manager (Operations)		-Establishment of efficient coordination among shift Incharge of various units during plant startup, shutdown, load changes, upset in normal operation and emergencies.
Qualification		-Coordination with maintenance for prompt rectification of defective equipment especially during off hrs.
BACHELORS OF ENGINEERING (B.E. MECHANICAL) University of Punjab		-Coordinate with Operations Manager and respective unit Incharge during plant abnormalities.
Highlight of Skills	Experience	-Act as fire chief during emergencies.
Erection, Pre-commissioning and Commissioning of Coal Powerplant.	July 2014- Present FFBL Power Company Limited	Sep. 1996 – Feb 2003 Fauji Fertilizer Bin Qasim Ltd (FFBL), Karachi, Pakistan
Experience of Ammonia Plant Erection, Pre-commissioning and Commissioning activities.	Experienced in power plant operations, overseeing efficiency, reliability, and compliance. Played a key role in the erection and commissioning of FPCL, ensuring smooth startup and operational excellence. Skilled in process optimization, troubleshooting, and team leadership to enhance plant performance.	As Ammonia plant" Shift Incharge" at Fauji Fertilizer Bin Qasim. Ltd., Karachi, Pakistan.
Operational Experience of Ammonia Plant for 15 years.	Jan. 2005 – Jun 2014 – Fauji Fertilizer Bin Qasim Ltd (FFBL), Karachi, Pakistan	Duties and Responsibilities:
Experience of Ammonia Plant BMR activities for capacity enhancement.	As Deputy Unit Manager, Ammonia Unit, at Fauji Fertilizer Bin Qasim Ltd., Karachi, Pakistan	-Ensuring safe and efficient operation of FFBL Ammonia plant.
Managerial Experience of 07 years at Ammonia Plant.	Basic Responsibilities:	-Monitoring of operation of all plant equipment, machines and instruments.
Total Experience of 15 years in Plant Operations.	-To handle all the administrative, technical issues of the unit.	-Review of operating data on two hourly basis.
Project Experience of Coal based power plant (In Progress).	-Ensure safe operation of the plant through audits, safety talks and EHP discussions.	-Handling of all plant emergencies
	-Execution of routine jobs in coordination with planning and maintenance departments.	-Supervision and follow up of maintenance jobs.
	-BMR activities during 60 days of Turnaround to increase Production by 300 Met.	-Preparation of plant emergency handling procedures.
	Erection, Pre-commissioning and Commissioning of FFBL Ammonia Plant, Relocated from Lake Charles, USA.	-Preparation of turn around packages.
	Duties And Responsibilities:	-Revisions of plant startup and shut down procedures.
	-Setting up of Technical Training Centre.	-Conduct emergency handling talk among staff employees.
	-Preparation of Area General and Area Specific courses	-Conduct safety talk to increase safety awareness among the staff employees.
	-Imparting lectures to operating staff.	-Training of the staff.
	-Checking and verifying Hydrotest Packages.	-Energy conservation and pollution control.
	-Preparation of punch lists regarding plant completeness study.	Certificates & Trainings:
	-Preparations of pre-commissioning packages like chemical cleaning, steam blowing, air blowing and water flushing etc	-Cooling Water Treatment Technology, conducted by BUCKMAN Laboratories At SINGAPORE
	-Air blowing of process gas and fuel gas circuits using portable and process air compressor.	-Problem Solving & Decision Making, conducted by Pakistan Institute of Management sciences (PIMS)
	-Steam blowing of high, medium and low-pressure steam networks with copper target plates.	-Effective Presentation Skills conducted by FFBL
	-Preparations of log sheets and checklists.	-Introduction and Operation of DCS conducted by Descon Limited, on behalf of "BAILEY".
	-Loading of Ammonia Plant catalysts.	Computer Literacy:
	-Verification of logics as per configuration in DCS and in field.	-SAP, Lotus Notes, MS Office, MS Access, Internet & other Software.
	-Hands on working experience on the Distributed Control System (DCS) of Elsay Bailey "Infi 90" USA	
	-Startup of Ammonia plant and bringing it to normal production.	

Curriculum Vitae

Syed Sarfaraz Ahmed

Position

Manager (HSE & Asset Integrity)

Qualification

B.E. Chemical
NED University Karachi

Highlight of Skills

Skills in Goal Setting & Work Planning.
Effective presentation skills.
Communication skills.
Leadership Skills.
Communication Skills Training.
Problem solving and decision making.
Team Work.

Computer Literacy

SAP, Lotus Notes, MS Office, MS Access, CTI, PHA and Hysis software's.

Certificates & Trainings

Cooling Water Operation Treatment Program
Seminar on RO Membrane Chemical Cleaning
Buckman Cooling Water Treatment
Buckman Water Treatment Program
Process Hazard Analysis (PHA) Techniques
Strategic Time Management
Ultrasonic Flow Meter Training
Communication Skills Training
Seminar on Reverse Osmosis Technology by GE Osmonics
Drew Ameriod Singapore on CW, Waste & Fuel Treatment

Professional Summary

A professional having vast experience in the field of Process engineering, Utilities (water processing, power generation, etc), Safety, Procurement, Projects handling. Result oriented and disciplined engineer, an active team player along with impressive educational and proven professional track record. Comfortable with business and technical perspectives and understands their convergence. Posses good learning capabilities and enjoy working in a challenging environment.

Experience

July 2017 – Present FFBL Power Company Limited

Experienced in managing HSE and Asset Integrity at FPCL, ensuring compliance, risk assessment, and asset reliability. Skilled in safety audits, preventive maintenance, and implementing HSE policies for a safe work environment.

Nov 2013 – June 2017 Fauji Fertilizer Bin Qasim Ltd (FFBL), Karachi

Lead Process & Balance of Plant (BoP)

Worked as Lead Process & BoP for new Coal Power Plant (CPP) Project undertaken to ensure continual of FFBL fertilizer complex by curtailing Natural gas as fuel and supply of power and steam requirements of FFBL fertilizer complex.

CPP project consist of coal based Circulating Fluidized Bed (CFB) boilers and Steam Turbine Generators and state of art coal, sorbent and ash handling system as well as balance of plants.

Oct. 1996 – Oct 2013 Fauji Fertilizer Bin Qasim Ltd (FFBL), Karachi

Staff Unit Manager – Process

(Worked as an In-charge Process / Utilities Operations / Safety / Procurement)
FFBL is a large Ammonia (1570 MT/D) / DAP (2230 MT/D) / Urea (1920 MT/D) fertilizer complex possessing own power generation of 52 MW (02 Gas Turbines). Company is IMS (Quality, Environment & OHSAS) certified. All major processes of the organization are managed thru ERP (SAP) system modules.
www.ffbl.com

Process Engr.

-Worked with Engineering Group during engineering design, erection and start-up of FFBL fertilizer complex.

-Review and evaluation of engineering design w.r.t. codes & standards and compliance with Contractual requirements for EPC side of FFBL fertilizer complex i.e. Urea, DAP and Utilities units.

-Worked as various capacities as Process Engineer mainly focusing on Utilities and DAP and worked as acting Process Engineering Unit.

Following were job performed:-

-Evaluate requests for plant modification, recommends appropriate solutions and proposes changes as necessary; gather, researches and analyze pertinent data and information and prepares recommendations with supporting technical data.

-Prepare PFDs, Piping and Instrumentation Diagrams.

- Performance evaluation of compressors, heat exchangers, gas turbines, cooling tower, etc.

-Conduct quarterly Technical Monitoring Program and developing reports.

-Prepared process packages for plant modification requirement based on cost saving, energy efficiency, safety, reliability and capacity enhancement.

-Developing production loss reports in consultation with Operation & Maintenance.

-Developing weekly, fortnightly & monthly reports for Management Information Channel indicating Key Performance Indicators of Plants.

-Daily technical monitoring of plant operation / upsets / deviations and suggestions for corrective actions.

-Worked as UM-Safety & HAZOP. Actively persuade for actively implementations of safety procedures and instruments to ensure incident free work environment at the fertilizer complex.

-Worked as Procurement Engineer in PMP during Secondment along with Process Engineer as well as performed role of Secretary for PMP Management Committee reporting to BoD.

Staff UM- Utilities (Operations)

-Ensure safe and quality supplies of utilities to the Ammonia, Urea, DAP, PH&S and offsite facilities, maintain proper performance track and quality controls, ensure consistent supply of steam, power, cooling water, industrial water, chilled water, potable water, plant and instrument air.

-Maintenance of plant HVAC. Control plant effluent discharge and emissions within national environmental quality standards in order to provide utilities as per defined parameters and standards.

-Manage Operations of utilities unit, prepare of chemical requirement reports, review Process/Mechanical packages developed by Technical Services Department for modifications and improvements, etc.

-Ensure the implementation of IMS policies and procedures; operate the plant as per standards for external and internal audits.

April 94 - Aug 95 Gatron Polyester, Karachi.

-Joined Gatron Polyester in 1994 as Shift Engineer
-A leading polyester company, which manufactures polyester chips and polyester yarn. The raw material used in the manufacturing is Mono-Ethylene Glycol (MEG) and Pure Terephthalic Acid (PTA).

-Job was related to arrange shift and note down the features of the previous shift. To minimize waste generation of polymeric waste in spinning section during the shift.

Curriculum Vitae

**Muhammad Khalid
Jalil**

Position

Manager-Technical (L & D)

Qualification

B.Sc. Engg. Mechanical
(UET), Lahore
MBA Finance/Marketing
(IBA), Karachi

Highlight of Skills

Effective Presentation Skills
Communication Skills
Effective Delegation Skills
Effective Meeting Skills
Leadership Skills

Professional Summary

A professional having vast experience in the field of Mechanical engineering especially maintenance of rotating equipment in computerized SAP environment. Result oriented and disciplined engineer, an active team player along with impressive educational and proven professional track record. Comfortable with business and technical perspectives and understands their convergence. Possess good learning capabilities and enjoy working in a challenging environment.

Experience

Manager Technical L&D | 2022 – Present
Leading technical learning and development initiatives to enhance engineering capabilities. Responsible for designing and implementing training programs, conducting skill assessments, and ensuring knowledge transfer across teams to improve operational efficiency and reliability.

Lead Engineer Mechanical & Solid Handling | FPCL | 2014 – 2021

Managed the engineering, design, and supply of all rotating equipment and solid handling systems for the 118 MW Coal Power Plant project. Oversaw the installation, commissioning, and operational readiness of coal, sorbent, and ash handling systems. Collaborated with EPC contractors, ensured compliance with industry standards, and optimized system performance for plant reliability and efficiency.

12 September 1996 – October 2013

Fauji Fertilizer Bin Qasim Ltd (FFBL), Karachi, Pakistan

Staff Unit Manager – Mechanical

(Worked as Project Procurement, Construction, Machinery Engineer and SAP Plant Maintenance Module Implementation and Power user and Lead Machinery and Solid Handling in CPP Project)

FFBL is a large Ammonia (1570 MT/D) / DAP (2230 MT/D) / Urea (1920 MT/D) fertilizer complex possessing own power generation of 52 MW (02 Gas Turbines). Company is IMS (Quality, Environment & OHSAS) certified. All major processes of the organization are managed thru ERP (SAP) system modules. www.ffbl.com

SAP Plant Maintenance (PM) Module Power User

Worked as core team member in SAP Plant Maintenance Module implementation during Information Technology Enabled Organizational Transformation (ITET) Project. Following were job performed:-

-Evaluate the "As is Maintenance Process" for process reengineering.

-Design the customized the new maintenance process like normal, preventive, refurbishment and turn around maintenance and fleet management.

-Design and prepare the master data like equipment, functional locations, measuring points for PM module.

-Train the SAP Go-Live Team for smooth implementation.

-Provide support during and after SAP Go-Live in April 2010.

-Design different reports for Business Intelligence Module for maintenance department.

Machinery Maintenance Engineer

Worked as Machinery Maintenance Engineer in different areas i.e. DAP, Bagging, Urea, Ammonia and Utilities in different capacities and as area head utilities machinery. Main assignments are as follows:

-Maintenance and spare parts management of all rotating equipment of assigned area.

-Preventive maintenance of rotating equipment of assigned area.

-Cost saving and overall machinery maintenance budget preparation.

-GE frame 5, 26.2MW, Model MS5001P Gas turbine major overhauling in FFBL during Turnaround 2006, 2007 and 2012 and in FFC-GM in TA-2006.

-Vast experience of maintenance of various types of rotating equipment including pumps, centrifugal compressors, instrument air compressor, steam turbines, gear boxes, fans & blowers, conveyor belts, crushers, bucket elevator, screens and feeders etc.

Project Procurement Engineer

During FFBL erection phase worked as Project Procurement Engineer in Technical Construction Services. Main assignments in that phase were as follows:

-Review of mechanical drawings of pumps, turbines, compressors, heat exchangers, reformer, piping plans and isometrics and preparation of Bill of Materials for procurement.

-Project phase procurement and inspection experience of mechanical parts and accessories of worth Rs. 43.8 million and US \$ 3.31 million.

Certificates & Trainings:

Maintenance Management

HSEQ Mngt. System - Internal Audit Course

SAP Plant Maintenance Academy Training

Occupational Health & Industrial Hygiene

General Corrosion

Project Management

Problem Solving and Decision Making

Time Management

Team Work

Coaching, Motivating And Delegating

High Performance Manager

People Management

Role of Manager During Performance

Appraisal

Conflict Management

EQ - Emotional Intelligence

Computer Literacy:

SAP, Lotus Notes, MS Office, Power Point.

Curriculum Vitae

Farhan Ahmed Mazari

Position

Unit Manager - Electrical

Qualification

**Bachelors of Engineering
(B.S. Electronics)**

Highlight of Skills

**GE Frame-5 Gas Turbines
(MS5001) with Speedtronic
Mark-V control system.**

Conversant with Mark-V control system hardware and software. Carried out major overhauling of machines in annual shutdown.

Calibration of servo regulators. Updating of different HMI displays.

Installation of Bentley Nevada Vibration monitoring system. Logic modifications in CSP and downloading in different processors.

Rectification of diagnostic and process alarms.

Exposure to fire suppression systems and its various alarms rectification.

Gas turbine and Mark V spare parts ordering, inspection and inventory updating.

Time Management Skills.

Effective Presentation Skills.

Distributed Control System.

ABB Bailey INFI-90 Open.

ABB symphony PCP Tenore.

ABB Industrial IT 800xA Ver.

5.0 / Composer 5.0.

HIMA H51-HS.

Allen-Bradley PLC5 & Flex

Logix 5000 Series.

Turbo-Machinery Control.

GE SpeedTronics Mark-V

Turbine Control System.

Triconex TS-3000 Turbine Control System.

Woodward Peak-150.

Woodward S-505.

Machine Monitoring System.

Bently Nevada 3500.

Bently Nevada 3300.

Others.

Burner Management Systems.

Ohmart-Vega Nuclear Density Meters.

Analyzers.

Transmitters & Switches.

Vibration probes, Speed sensors etc.

Control Valves, Positioners, I/P converters etc.

Professional Summary

A diverse experience encompassing 18 years in the field of Instrumentation and Controls including Engineering, Design, Erection, Commissioning and Maintenance at chemical plant at various positions.

Experience

July 2014 – Present

FFBL Power Company Limited

Currently leading the I&C Team, overseeing design reviews, budgeting, and planning for the Coal Power Plant (CPP). Experienced in project execution, contractor supervision, and technical/commercial document evaluation. Skilled in equipment installation, troubleshooting, SAP work order management, and developing preventive maintenance schedules. Focused on optimizing inventory, ensuring critical spare availability, and training staff for enhanced operational efficiency.

**Aug. 2006 – June 2014 - Fauji Fertilizer
Bin Qasim Ltd (FFBL), Karachi, Pakistan.**

Designation: Deputy Manager
(Instrument & Control)

FFBL is one of the leading and sole granular Urea and granular DAP fertilizer manufacturing company in Pakistan. FFBL also has a Joint Venture with OCP Group of Morocco, for the production of merchant grade Phosphoric acid in Morocco, which is not only transported to Karachi for DAP fertilizer manufacturing, but also marketed internationally.

Certificates & Trainings

-Writing for Results & Communication Skills by Institute of Training & Consultancy.

-Integrated Management System (IMS) "ISO 9001:2000, ISO 14001:2004 and OHSAS 18001:2007" by BQI.

-Health, Safety & Environment related programs and training at FFBL including Fire Fighting, Emergency Handling, Acid Handling, First Aid and Dry Run activities.

Computer Literacy

SAP, Lotus Notes, MS Office, MS Access, Internet & other Software.

Curriculum Vitae	Professional Summary
<p align="center">Ahmed Nawaz</p>	<p>Present working with Fauji Fertilizer Bin Qasim Limited (FFBL), one of the leading fertilizer manufacturers in Pakistan, with production capacities of 1570 MTPD Ammonia, 1570 MTPD Urea and 2400 MTPD DAP plant, as Section Manager with more than Sixteen years of experience in Project Management.</p>
Position Unit Manager (Inspection)	Experience
Qualification	Inspection Department FPCL 2022 – Present
BACHELORS OF ENGINEERING (B.E. MECHANICAL)	<ul style="list-style-type: none"> -Overseeing inspection and condition monitoring of boilers, steam turbines, balance-of-plant (BOP) equipment, and critical rotating machinery. -Conducting non-destructive testing (NDT), vibration analysis, thermography, and hydrostatic testing. -Performing root cause failure analysis (RCFA) for equipment breakdowns and unscheduled shutdowns. -Ensuring compliance with industry QA/QC standards, safety regulations, and operational reliability. -April. 2000 – Oct 2013 - Fauji Fertilizer Bin Qasim Ltd (FFBL), Karachi.
Highlight of Skills	Project Engineer FPCL 2014 – 2022
COADCALC (Pressure Vessel / Heat Exchanger Designing Software). ALGOR PIPE PLUS (Piping Design and Analysis Software). AUTO PIPE (Piping Design and Analysis Software). STAAD PRO (Structure Designing and Analysis Software). E-TANK (Storage Tank Design Software) MS PROJECT. AUTOCAD. MS-OFFICE.	<ul style="list-style-type: none"> -Key role in the installation and commissioning of the 118 MW FPCL Coal Power Plant. -Oversaw engineering design, procurement, and construction supervision for major mechanical systems. -Managed inspection and quality control of boilers, turbines, coal handling systems, and auxiliary equipment. -Ensured successful project execution through technical assessments, material inspections, and contractor coordination.
	Ammonia Plant Bmr Project
	<p>Involved in BMR (balancing modernization and revamp) of Bechtel Ammonia Plant as a core team member from 2004 to 2008. Major responsibilities includes:</p> <ul style="list-style-type: none"> -Engineering, Procurement and installation of Natural Gas Compressor along with civil works and associated piping. -Revamp of Old Primary Reformer (1965 vintage), Foster Wheeler design. It includes installation of new 432 micro-alloy catalyst tubes with larger diameter for reliability and capacity enhancement. -Procurement, replacement & repair of Secondary Reformer (C-102) High Intensity Burner. -Procurement, Engineering review and Installation of Ammonia Recovery Unit along with civil works and associated piping. -Procurement, Engineering review and Installation of BFW Pre-Heater (E-205) along with civil works and associated piping.
	<ul style="list-style-type: none"> -Procurement, Engineering review and Installation of Low Pressure Steam Generator (E-2002) along with civil works and associated piping. -Procurement, Engineering review and Installation of Ammonia Converter Effluent Cooler (E-302A/B) along with civil works and associated piping. -Engineering, Procurement and installation of New Cooling Water Pump along with civil works and associated piping.
	Join Fauji Fertilizer as a Project Engineer in 2001 and worked in Project Engineering Unit till 2004. Major responsibilities include:
	<ul style="list-style-type: none"> -Preparation of engineering packages for plant modification jobs as per codes & standards & ensuring the execution of job in the area as per engineering package. -Designing and analysis of existing as well as new structures, platforms and piping supports -Designing and analysis of pressure vessels. -Designing and flexibility analysis of existing as well as new piping system. -Development of welding procedure specifications for various jobs. -Designing of on line box-up to rectify leakages without shutdown of plant. -Arrangement / procurement of material.
	Inspection Unit
	<p>As a part of cross training program I worked as Inspection Engineer from 2008 to 2013 with following job responsibilities:</p> <ul style="list-style-type: none"> -Internal, external and on-stream inspections of plant equipment including pressure vessels, columns, furnaces, boilers, exchangers, tanks etc. -Preparation of inspection reports to record observations and recommend repair work in equipment. Maintaining equipment history / records. -Hydrostatic and leak testing of all types of heat exchangers, piping & vessels. -Implementation of 14 years "Piping Thickness Monitoring Plan" by using ultrasonic technique of all the major plant piping circuits as per API 570. -Skin temperature measurement of high temperature refractory lined equipment of ammonia plant using infrared temperature meters & thermography. -Material verification of incoming warehouse inventory against MTCs. -Material identification using alloy analyzer & laboratory analysis. -PSV calibration & record keeping. -Pressure testing of all types of new & refurbished valves as per API 598.

**May 2000 – March 2001 -
Asia Engineers &
Contractors Karachi.
Estimation / Planning /
Project Engineer**

I worked with Mechanical Engineering contractor "Asia Engineers & Contractors" dealing with the fabrication, erection and repair of pressure vessels, shell & tube heat exchangers, storage tanks, plant piping and steel structures.

Job Responsibilities:

- Estimation, planning, scheduling and monitoring of mechanical projects.
- Preparation of bids for all types of mechanical projects.
- Preparation of construction schedule for various project / fabrication activities.
- Designing & development of fabrication drawings of mechanical equipment.
- Supervision of fabrication activities of tanks and vessels.

Major Projects Handled:

- BP Pakistan Exploration (Formerly Union Texas Pakistan Inc.).
- Fabrication / repair of tanks & vessels at site as well as in workshops.
- Dalda Oil /Banaspati (UniLever Pakistan Ltd.).
- Supply & fabrication of 02 nos Oil Storage tanks.
- Supply & fabrication of Stainless Steel tanks for Margarine plant.
- Lipton Tea Company (UniLever Pakistan Ltd.).
- Supply & fabrication of working platforms for the inspection of Tea Conveyor.

**Nov 1999 – April 2000
M&J Engineering Ltd
Karachi.**

Assistant Engineer

I worked with Mechanical Engineering Contractor "M&J Engineering Ltd." Dealing with the Fabrication & Erection of Power Plants, Chemical, & Petrochemical Plants & various Mechanical Equipment's like Pressure Vessels, Heat Exchangers, Storage Tanks & Over Head Cranes.

Job Responsibilities:

- Preparation of construction schedule for various projects.
- Preparation of daily progress report for various jobs in hand.
- Coordinating between different job sites & also with the client so as to facilitate timely completion of the project.
- Development of fabrication drawings of mechanical equipments.
- To ensure execution of job in accordance with the drawing, design & construction schedule during fabrication.

**June 1997 – Nov 1999 Sagri Associates
Karachi.
Design Engineer**

I worked as a Design Engineer with Mechanical Engineering Consultant "Sagri Associates" dealing with the Design of Oil Storage Tanks and Terminals at Port Qasim.

Job Responsibilities:

- Layout planning for oil storage terminals.
- Design of oil storage tanks.
- Development of fabrication drawings of oil storage tanks,
- Development of pipeline key plan, internal piping layouts and. Isometric drawings.
- Detailing of mechanical, electrical, & civil works on AutoCAD.
- Preparation of bills of materials for various activities.
- Preparation of tender documents / analysis and evaluation of bids.
- Monitoring of the schedule submitted by the contractor and development of progress sheets for various activities.
- Contractor's bill verification.
- Development of As-built drawings.
- General site inspection especially of mechanical works & rectification of site problems.

Certificates & Trainings:

- Project Management, by PIMS
- Problem Solving and Decision Making, by TLO.
- "GUNGHO" Team Building, by Navitus.
- Change Management Workshop by Navitus.
- Goal Setting & Work Planning, by Navitus.
- Effective Presentation Skills, by FFBL Training Center.
- Effective Communication Skills, by PIMS
- Strategic Management by L & D FFBL.
- Stress and Time Management by M/s Octara.
- Conflict Management by M/s Octara.
- High Performance Manager by M/s Evolve
- Finance for non-finance Manager by Pakistan Society for Training and Development.
- Basic French Language course from Alliance Francaise, Karachi.
- General Corrosion by Ex- Corrosion expert of Stamicarbon .BV.
- Corrosion / Cooling and Boiler Water Treatment by M/s Buckman.
- API-510 Pressure Vessel Inspection and Rerating.
- API-580/ API RP-581Risk Based Inspection Technology.
- API-653 Above Ground Storage Tank, Scope & Inspection by SGS Pakistan.
- Basic Vibration Monitoring course by SKF.
- IMS Audit Techniques by SGS Pakistan.

Curriculum Vitae

Anees Afzal

Position

(Mechanical Engineer)

Qualification

B.E. MECHANICAL
UET. Peshawar

Highlight of Skills

Played a key role in Erection, Pre Commissioning and Commissioning of Coal Power plant.

Carried out part of engineering in house to speed up the engineering / procurement phase and able to complete the Ammonia BMR project in time and within budget.

Evaluate that it is safe to operate Ammonia Plant Secondary Reformer even after a number of hot spots due to refractory failures. 8.2 million dollars were saved in 8.4 million dollars Secondary Reformer replacement project.

Overnight designed of bundle pulling structure for Low Pressure Corbamate Condenser which reduced the downtime by 05 days as crane of such capacity was not available in the vicinity.

Conversion of data from legacy system to SAP requirement in five days against estimated time of 02 months, by MM team members and make SAP Go-live on time. All this become possible by the help of Almighty Allah and my exceptional / unmatched skills in MS Excel.

Got First Position in Final Year Mechanical Engineering with Highest ever marks in Mechanical Department.

Professional Summary

With over 20 years of experience, Anees Afzal specializes in piping and mechanical equipment design, project execution, and plant operations. He spent over a decade at FFBL Fertilizer Complex, focusing on piping design, structural analysis, and mechanical supervision. After 2014, he played a key role in the erection and commissioning of a coal power plant. Currently, as Manager – Projects at FPCL, he leads project planning, execution, and technical evaluations, ensuring compliance with industry standards. Skilled in AutoPIPE, STAAD Pro, AutoCAD, and MS Office, he excels in cost estimation, bid evaluations, and engineering management.

Experience

June 2014 – Present

FFBL Power Company Limited:

Role- Manager Projects Department

Currently working as Manager – Projects at FPCL, oversees project planning, execution, and contractor management. Played a key role in the erection and commissioning of the coal power plant. Responsible for technical evaluations, cost estimation, bid assessments, and ensuring compliance with industry standards for large-scale engineering projects.

March-2009 to June 2014- Fauji Fertilizer Bin Qasim Ltd. (FFBL), Karachi, Pakistan

-Role: Project Engineer

-Areas of responsibility:

-Project Documentation Manager

-Implemented Project System, Investment Management and DMS modules

-Solutions includes CAPEX, Turnaround, Document Management

Jan-2008-Feb-2009) IT Enabled Business Transformation Project. Fauji Fertilizer Bin Qasim Ltd (FFBL), Karachi, Pakistan

Evaluation of Ammonia Plant Secondary Reformer for its safe and continued operation. Engaged M/s Hador Topsoe for engineering. (8.4 million dollars project). Equipment was technically found safe for its continued operation and project was closed.

Mar-2005-Dec 2007 Fauji Fertilizer Bin Qasim Ltd (FFBL), Karachi.

Worked on Balancing, Modernization and Revamp of Ammonia plant for sustained & increased production to 1570 MTPD from its existing capacity of 1270 MTPD (50 million dollars Project)

Key responsibilities of Ammonia BMR includes:

HEAT EXCHANGERS AND VESSELS (AMMONIA BMR)

-Carried out Engineering, RFQ's preparation, vendor selection, inspection visits to vendor workshop and supervision of erection activities.

-The scope includes for the following exchangers and vessels:

-Trim Heater, E-212 (gas-gas heat exchanger)

-DMW Preheater, E-2010

-Syn Gas Chiller, E-2011

-Methanator Feed / Effluent exchangers, E-209A/B

-Back End Steam Generators, E-322A/B

-Methanator Knockout drum (C-2011)

AIR BLOWERS (AMMONIA BMR)

-Erection of two air blowers (K-1001A/B) including design and engineering of the following associated equipments:

-Suction filters, L-1001A/B

-After coolers, E-1002A/B

-Knockout drums, C-1009A/B

-Methanator Knockout drum, C-211

This project offered a great challenge due to area limitation in existing ammonia plant layout.

-Development of layout, piping isometrics and support structure design, ordering of piping material for Benfield (CO2 removal system,) revamp (about 60 process gas and solution lines). Reviewed and finalized its piping flexibility analysis at M/s Chemprod office, Milan Italy (02 visits).

-Engineering and execution of Low-Heat system for energy efficiency of Benfield system. A Benfield solution Flash Vessel was installed at 20 meters from FFL along with four Steam Ejectors.

-Modification in a number of vessels including;

-Conversion of tray system in Benfield towers to packed bed with addition of 09 new nozzles and man-ways followed by localized heat treatment of vessels

-06 knockouts were modified with enlarge nozzles and new internals.

-04 Heat exchangers were modified with enlarge nozzles and 01 heat exchanger was elevated for better performance.

-Flexibility analysis of exiting process air compressors (K-101 A/B) suction, discharge and interconnecting piping.

-Prepared as-built isometric contract of ammonia plant required for BMR.

Cost estimate of Urea Plant BMR (€ 40 MM) based on study conducted by M/s Stamicarbon to increase production from 1760 MTPD to 2400 MTPD.

Oct-1999-Feb 2005

Fauji Fertilizer Bin Qasim Ltd (FFBL), Karachi.

-Stress analysis of complete Benfiled piping circuit (CO₂ removal system in Ammonia Plant), its piping rerouting, design of new structure for its supports. The circuit contains 06 pumps and 02 HPRT.

-Flexibility analysis of Steam Export circuit from Ammonia Plant to Urea Plant (70 Million Rupees / yr saving project)

-Design of expansion loop for BFW pump (G-106A/B) to eliminate existing damaged expansion bellows.

-Stress analysis of new ZnO Desulfurization project piping system.

-Excess vibration removal of 8 NPS line from Stripper to rectifying column.

-Rectification of vibration problem and provision of Y-type suction strainers at high pressure BFW supply pumps (G-403A/B) and BFW pumps to MS header (G-418A/B).

Structure design using STAAD-Pro including Monorails, Jib cranes, platforms, walkways (74 MeT of steel structure was analyzed and designed), including:

-Rigging structure for bundle pulling structure (11 MeT) for Low Pressure Corbamat Condenser (UH-271).

-Interconnection of Urea Wet with Urea Granulation plants (3.0 MeT).

-Interconnection of desorber with Urea Wet (4.8 MeT).

-Monorail at Urea top, a large portion of existing structure of urea wet was analyzed to check its safety for additional loading (27 MeT).

-Rigging structure for bundle pulling structure (05 MeT) for Reflux Condenser (UH-411).

-Suspended maintenance platform for Urea granulation screens (7.6 MeT).

Other Mechanical Design Packages based on Service Requests (PCRs)

-Mechanical Design Package for sulfuric acid dosing system to cooling towers, including design of new sulfuric acid day tank, its associated piping.

-Involve in erection of new HRSG. (Replacement of existing 80 MeT/hr problematic HRSG with new Macchi boiler of 130 MeT/hr capacities).

-Design review and implementation packages of several major piping and other plant modification and improvement jobs including piping, pressure vessels, tanks & structure etc.

-Weld and other repair procedures for various plant problems including a Chart for welding procedures of common material used in FFBL.

Inspection Engineer

-A number of visits to vendor workshop for inspection of heat exchangers / pressure vessels fabrication, including inspection of Backend Steam Generators at M/s Borsig Germany.

-Pressure vessels inspection of over twenty vessels in annual turnarounds.

-Inspection of boiler, heat exchangers and piping systems.

-Hydro testing of piping, vessels and heat exchangers.

-Experience in thickness monitoring, Dye penetrant testing, etc.

Good knowledge of corrosion phenomenon and other testing techniques.

June-1998-Sep 1999 Fauji Fertilizer Bin Qasim Ltd (FFBL), Karachi.

Worked as a planning engineer during erection of Pak Arab Refinery Project with Descon engineering. Assignments include planning of manpower & consumables and production of progress reports & Invoicing for piping erection job. Most of these jobs were handles using Primavera Project Planner and other software developed by Descon.

Materials Warehouse

-Worked as a materials engineer with local & foreign ordering

-Experience of warehouse operations

Safety, Health and Environment

-Safety Coordinator for Project Engineering at FFBL.

-Conducted weekly safety talks and numerous safety-training sessions.

-Review of FFBL safety manual.

Integrated Management System

-Developed a number of Procedures and Work Instruction for Project Engineering based on IMS (ISO 9001:2000, ISO 14001:2004 & OSHAS 18001:2007).

-Trained as IMS auditor by M/s Bureau Veritas with a number of refresher courses.

-Conducted a number of IMS internal audits of different section.

Certificates & Trainings:

-High Performance Managers by M/s Nabitus (02 days).

-Computer course for AutoCAD and MS office (15 days).

-Primavera Project Planner (30 days).

-Piping design and flexibility analysis (03 days).

-Management Skills (02 days).

-Problem Solving & Decision Making (01 day).

-Workshop on Communication skills (01 day).

-Time Managements (02 days).

-Integrated Management System (QHSE) Auditor Course along with 03 refresher workshops ((04+04 + 01 +01 +01 days).

-Safety Training (01+ 01 days).

-Safe driving course (01 + 01 days).

-Medical first aid training course (01 day).

-Effective Presentation Skills (02 days).

-Management course for Junior Executives (03 days).

-High Performance Managers (02 days).

-Goal setting & Work Planning (02 days).

-Level-II training on SAP Projects Systems.

Computer Literacy:

Major working experience in following General Software:

MS Office

MS Project

Primavera Project Planner

Visual Basic

Lotus Notes

Major working experience in following Engineering Soft wares:

-AutoPIPE Plus, Piping design and stress analysis.

-ALGOR-Pipeplus, Piping design and stress analysis.

-STAAD Pro, Structure design and Analysis.

-AutoCAD, Drafting software.

-CODECALC, Designing and evaluation of gasket, flange, pressure vessel etc.

-STAHL, Key to steel.

-CADWORX-PIPE, 3D modeling of piping with Isogen.

-TEMA Tubesheet, Exchanger Tubesheet designer.

-Compress, Pressure Vessel designing.

Develop Engineering Software's for Project Engineering.

-Software for preparation of Welding Procedure Specifications in MS-ACCESS with Visual Basic.

-On-Line Box-up for flange leakages with complete database.

-Pipe thickness design based on B31.3

-Piping branch / Vessel opening reinforcement design based on B31.3 / ASME Sec. IIIV Div-I.

Insulation & Painting system with BOM generation.

and good speaking and writing ability in Urdu and English.
Experience to manage large team of more than one department.

- Engineering & Commissioning of ABB 800xa DCS for HRSG, Balance of Plant & ESD of CoGen Power Plant in Lotte PPTA.
- Job Scope
- Logic & HMI development, DCS hardware Panel design, FAT of hardware, MODBUS TCP communication of DCS with Natural Gas Compressors PLCs, Diverter Damper PLC and Gas Turbine PLC, testing &

Telemetry System.

- Installation, Calibration and Data logging configuration on GSM of Electromagnetic Insertion type Flow meters (ABB Aqua Probe 2) in WSS13 project for Karachi Water & Sewerage Board (KW&SB).

Curriculum Vitae

Muhammad Ayaz Butt

Position

Unit Manager – Instrument

Qualification

Bachelors in Industrial Electronics Engineering

Institute of Industrial Electronics Engineering

Highlight of Skills

Practical Knowledge & experience of Installation, Engineering & Commissioning of both server based & Hybrid DCS and PLC based systems in various Processes. Practical experience in O&M activities in Power plants and Oil & Gas field including troubleshooting of control system hardware and HMI issues and configuration and tuning of control loops. Experience of reading and development of loop, Electrical & Termination drawings for Control System projects on AutoCAD & MS Visio. Experience in Pre Projects DCS & PLC design and reading P&ID to segregate process variable tags for system designing. Skills to manage & leading projects and experience in supervision of contractor during installation jobs in projects. Good hands on experience on process instrument installation and calibration and actuation system. Experience of FAT (Factory Acceptance Test) & SAT (Site Acceptance Test) in DCS & PLC projects. - Experience of Commissioning of Motor Drives (AC & DC Drives) in various industries. Good Communication Skills.

Professional Summary

Experienced in managing instrumentation and control (I&C) systems for power plant operations, ensuring reliability, efficiency, and compliance with industry standards. Skilled in project execution, maintenance planning, troubleshooting, and calibration of instruments. Expertise in automation, control system optimization, contractor supervision, and technical evaluations to enhance plant performance and operational safety.

Experience

July 2014 – Present

FFBL Power Company Limited

Responsible for overseeing instrumentation and control (I&C) systems, ensuring reliable plant operations. Manages project execution, technical evaluations, maintenance planning, and contractor supervision. Experienced in troubleshooting, testing, calibration, and installation of instruments while ensuring compliance with safety and industry standards. Skilled in optimizing plant performance through automation and control system enhancements.

ABB Pvt. Ltd. Pakistan

1st May, 2008 to 30th May, 2014.

Senior Project Engineer Process Automation (Project Design & Execution). Server based DCS (800xa System).

- Engineering & Commissioning of Vertical Cement Mill in Al-Abbas Cement Ltd.
- Job Scope
- Logic & HMI development, System configuration, Commissioning, Networking of server client based DCS System, Startup & SAT of System for Vertical Cement Mill Process Control.
- Engineering & Commissioning of Rope Dyeing Machine in Mekotex Karachi.
- Job Scope
- Logic & HMI development, System configuration, System Networking, Commissioning, Startup & SAT of System for Rope Dyeing Machine Automation.
- Engineering & Commissioning of DCS for Station Control & ESD System for Compression plant in Qadirpur Gas Field.
- Job Scope
- Logic & HMI development, System configuration, Commissioning, Networking of server client based DCS & ESD System, MODBUS TCP communication of 14 Allen Bradley PLCs on compressors with DCS, Startup & SAT of System of 14 Gas Compressors Control for 150 mmscf Natural Gas expansion in Qadirpur Gas Field.

Hybrid DCS (Freelance 2000 System).

- Engineering & Commissioning of Data Center in Islamabad (Building Management System).
- Job Scope
- Logic design and development, DCS Panel design, HMI development, Installation of Instrument for building automation, Networking of System along with MODBUS (RS485) communication of ABB DCS with third party equipment and ABB LV Panel and commissioning of ABB LV panel. Supervision of contractor was also part of job scope in Panel and instrument installation.
- Engineering & Commissioning of Burner & Furnace Control Loop for 84 tons boiler in National Refinery.
- Job Scope
- Logic development, HMI development, Networking of System along with MODBUS (RS485) communication of ABB DCS with ABB Burner Management System PLC AC31, Commissioning and start up of 84 tons Boiler.
- Up gradation of front end of ABB Freelance 2000 DCS from old version to latest version in Pakistan Petroleum Limited (PPL) Mazarani Gas Field.
- Job Scope
- Up gradation included Replacement of old workstations with new workstations with latest version of Freelance 2000 installed (Windows 7 Compatible), Networking of system with DCS hardware, Modification in their existing control loops and modification in ESD logics in ABB Trigaurd PLC (SIL2 System). Whole activity was done in their 4 days Annual Shutdown period.
- Infi90 & 800xa Harmony.
- Communication of CM50 controllers with Infi90 DCS via MODBUS RS485 layer PPL Sui Gas field.
- Job Scope
- Communication of 4 CM50 single loop controllers (Slaves) with BRC400 (Master) via MODBUS RTU on RS485 layer in PPL Sui Gas Field.
- Up gradation of front end of ABB Infi90 DCS with 800 Harmony System of Urea & Utility Plant in Fauji Fertilizer Bin Qasim Limited.
- Job Scope
- HMI development, Installation of Servers, Networking of PCUs (Infi90 link) with 800xa servers, 800xa system configuration for infi90 control system Commissioning and start up activities of Urea & Utility Plants.

Curriculum Vitae

Basit Iqbal Khan

Position

Unit Manager (Projects Department)

Qualification

MBA Marketing-UOK- (2010)
ME Energy sys-NED- (2008)
BE Mechanical-NED- (2004)

Highlight of Skills

Strong Presentation Skills
Effective Communication
Efficient Delegation
Productive Meeting Management
Leadership & Team Management

Professional Summary

Experienced Mechanical Engineer with expertise in maintenance, project execution, inspection and commissioning of rotating equipment in SAP-driven environments. Skilled in technical evaluations, procurement, vendor coordination, and construction oversight across power plants, and fertilizer plants. A results-driven professional with strong analytical skills, teamwork, and problem-solving abilities, thriving in challenging industrial environments.

Experience

FFBL Power Company Limited

Unit Manager – Projects (Sep 2022 – Present)

- Leading project execution, planning, and stakeholder coordination.
- Managing budgets, resources, and timelines for key projects.

Unit Head – Maintenance (Jan 2022 – Aug 2022)

- Improved plant reliability and developed mitigation plans for recurring failures.
 - Conducted RCA, optimized maintenance budgets, and ensured machinery reliability.
- ##### Inspection Unit (2017 – 2021)
- Led vibration diagnostics, condition monitoring, and technical training.
 - Managed QA/QC for boilers, piping, and pressure vessels.
 - Developed inspection dashboards and optimized shutdown planning.

Fauji Fertilizer Bin Qasim Limited (2014-2016)

Project Unit: DM /Section Manager- Project-CPP

- Review and finalization of BOM/BOQ & Invitation to Bid (ITBs) packages for Boilers, Steam turbine generators (STGs) for vendor's proposal.
- Review and finalization of technical proposals from all vendors.
- Coordination and follow-up with Supply Chain for timely procurement of material / services.
- Coordinated with package suppliers (Chinese, Korean, European and Local) for design finalization and interference checks for mechanical and civil work.
- Manage timely completion of Mechanical and Civil designing related to Boilers, STG and BOP. Including piping, equipment, structure, vessels, tanks, heat exchangers, silos.
- Finalized Painting, Insulation, Piping, Valves

ENAR Petrotech Services Limited (2010-2014)

Project Manager / Site Manager

- Led audits for BYCO Refinery, Attock Refinery, and NRL for commissioning and upgrades.

- Managed Work Optimization Project for Penspen UK (White Oil Pipeline) and prepared bid documentation.
- Oversaw QA/QC and consultancy for projects like EPRF-II, Sour Gas Plant Dakhni, and Pirkoh Gas Plant.
- Ensured safety compliance, inspection plans (QIPs), and quality assurance per industry standards.
- Reviewed BOQs, technical specs, bid evaluations, and coordinated with stakeholders for seamless execution.

Engro Vopak Terminal Limited (2008-2010)

Project Engineer – Ethylene Storage & Handling Facility (\$35M Project)

- Managed pressure vessels, tanks, piping engineering, procurement, and construction with international EPC consultants.
- Reviewed basic and detailed engineering, QA/QC documents, and material specifications.
- Monitored project progress, conducted weekly meetings with contractors (China & Scotland), and ensured API-620 compliance.
- Presented monthly progress reports to the CEO and coordinated technical discussions with designers in China.

Fauji Fertilizer Bin Qasim Limited (2005-2008)

Project Engineer – Ammonia Plant Revamp (\$55M Project)

- Worked on structure analysis, piping stress analysis, heat exchangers, waste heat boilers, and pressure vessels design.
- Provided support during 2006 & 2007 major plant turnarounds (BMR Phase-I & II).
- Reviewed EPC contractor documents, vendor prequalification, and bid evaluations.
- Conducted pipeline stress analysis (Autopipe), vessel design (Codecad), and structure analysis (STAAD Pro).
- Coordinated with vendors, contractors, and consultants for procurement and construction.

Trainings and external services:

- Vibrational Analysis
- Pressure Vessel Inspection
- Hydrostatic testing
- Entrepreneurship /Start-up
- at DHA Suffa
- More than 100 Machine
- Diagnostic Services to EPCL,
- KE and ENI
- Technical Adviser at Suffa
- University
- External Examiner & Project
- adviser at NED University
- Mentor at TCF

Dated: July 01, 2025

To,
The Registrar
National Electric Power Regulatory Authority
NEPRA Tower, Attaturk Avenue (East)
Sector G-5/1, Islamabad

Subject: DOCUMENTS SUBMISSION IN RESPONSE TO NEPRA LETTER DATED JUNE 24, 2025

This is with reference to the NEPRA letter dated June 24, 2025, concerning the deficiency of certain documents in the application submitted by FFBL Power Company Limited (FPCL) on June 5, 2025, for the grant of Distribution License.

We hereby submit the requisite documents annexed as per following list:

- a. Feasibility Study.
- b. Affidavit for Grant of Licence under the NEPRA Act.
- c. Authorized Statement regarding any prior licence application refusals.
- d. System Studies.
- e. Minimum Technical and Human Resource Requirement Compliance.
- f. Affidavit confirming fulfillment of Eligibility Criteria Requirements.

We confirm that the enclosed documents are complete in all respect and accurate to the best of our knowledge and belief.

Should NEPRA require any further clarification, supporting documentation, or submissions in this regard, we remain fully available to provide the same on priority.

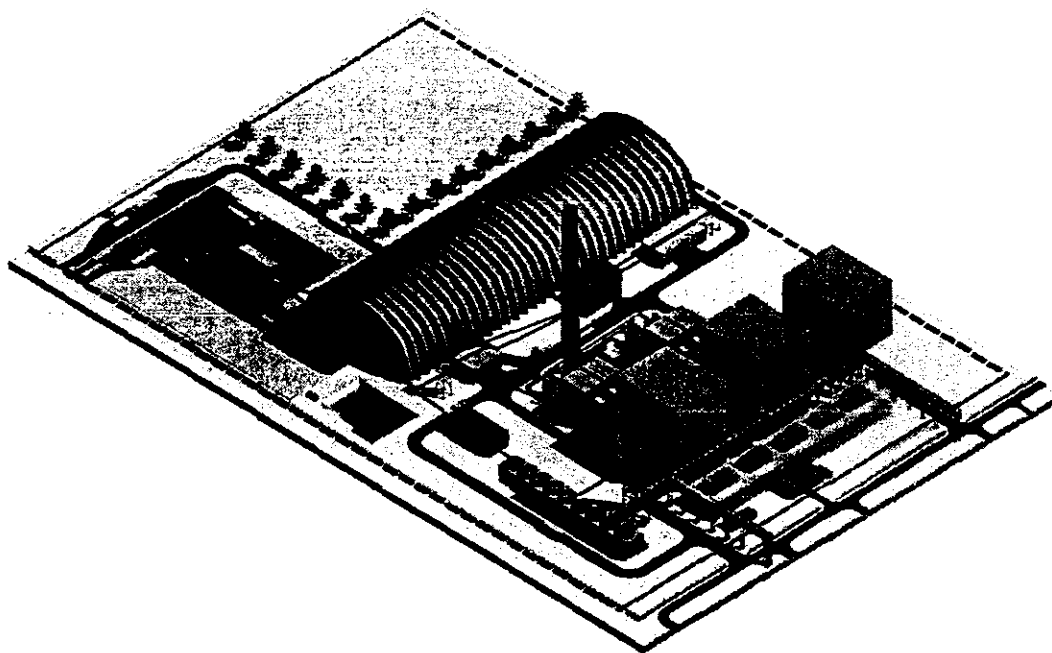
Yours Sincerely,



Lt Col Ali Siddiq (Retd)
Company Secretary

Authorized Representative
FFBL Power Company Limited





FEASIBILITY STUDY FOR ADDITION OF BPC TO EXSISTING FPCL SYSTEM

TABLE OF CONTENTS

1. BACKGROUND	3
2. LOCATION & SITE CONDITIONS.....	3
3. PROJECT IPLEMENTATION STRATEGY	7
4. FUEL AND EMISSIONS.....	8
5. TECHNICAL CHOICES	9
6. EXPECTED POWER PRODUCTION	10

1. BACKGROUND

1.1. GENERALITIES

- 1.1.1 FFBL Power Company Limited (FPCL) is an Unlisted Public Limited Company incorporated under Section 32 of the Companies Ordinance 1984 (XLVII of 1984) on 27th day of June, 2014 having Corporate Universal Identification No. 0088996. The Company is formed for setting up a coal-fired cogeneration power plant to
- 1.1.1.1 Sell power to K-Electric (formally known as Karachi Electric Supply Corporation) and/or Bulk Power Consumers
- 1.1.1.2 Sell power to Fauji Fertilizer Company (FFC) to meet the requirements of the FFC fertilizer plant.

1.2. SPONSER

- 1.2.1 FPCL is a fully owned subsidiary of Fauji Fertilizer Company/ Fauji group (FF). FFC is a public limited company incorporated in Pakistan under the Companies Ordinance, 1984.

1.3. THE PROJECT

- 1.3.1 The FPCL coal-based power plant is located within the Port Qasim Industrial Zone, Karachi. The facility consists of:

- Two CFB boilers, each rated at 250 MTPH
- Multiple steam turbine generators (STGs) supporting a total licensed generation capacity of 118 MW
- A hybrid operational model using 50 Hz and 60 Hz systems for diverse consumer needs

The plant has historically supplied:

- 52 MW to K-Electric
- 20 MW (plus steam) to FFC(formerly FFBL)
- Remaining power to internal auxiliaries

- 1.3.2 FPCL now seeks to include new Bulk Power Consumer (BPC) in its Generation Licence, namely:

- FonGreen Silicon Technologies Limited (FoST) – off taking >01 MW

- 1.3.3 No capacity expansion is being proposed. The supplies to the BPC will be met entirely through optimized reallocation of FPCL's existing 60 Hz generation facility.

2. LOCATION & SITE CONDITIONS

2.1. LOCATION

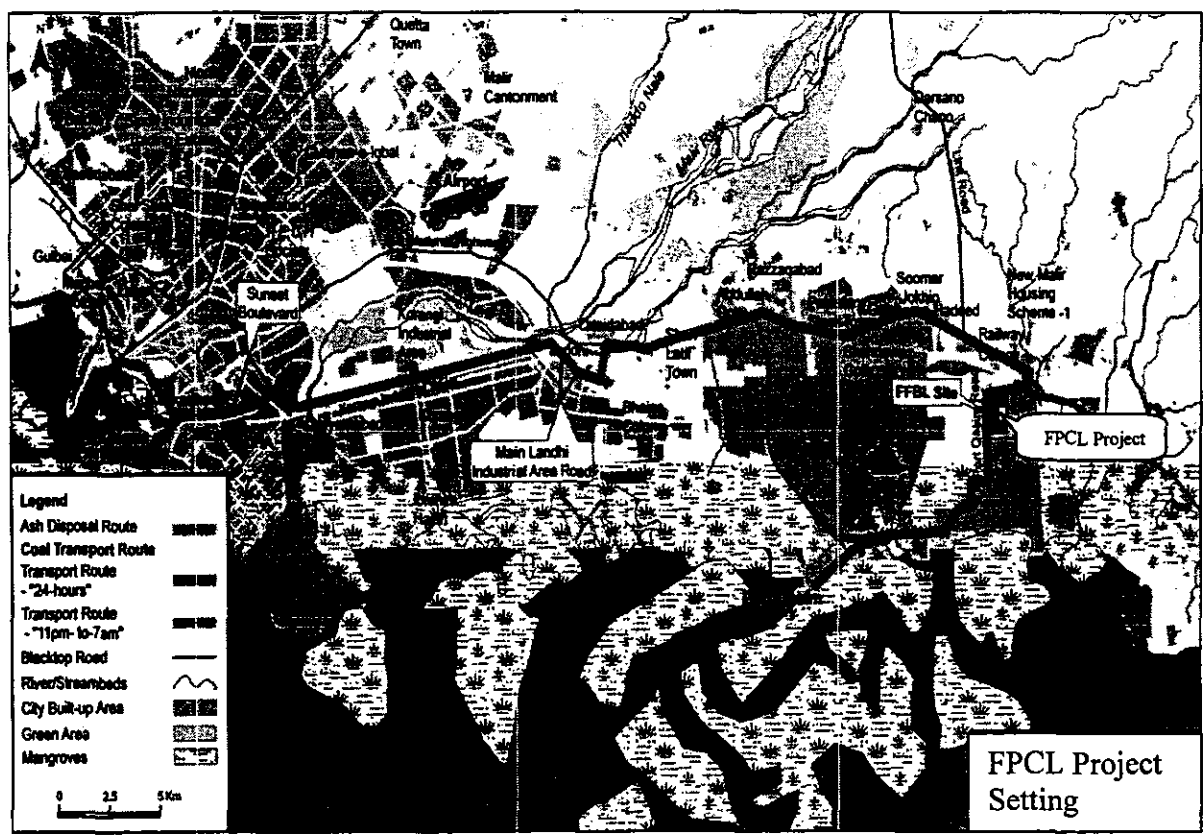
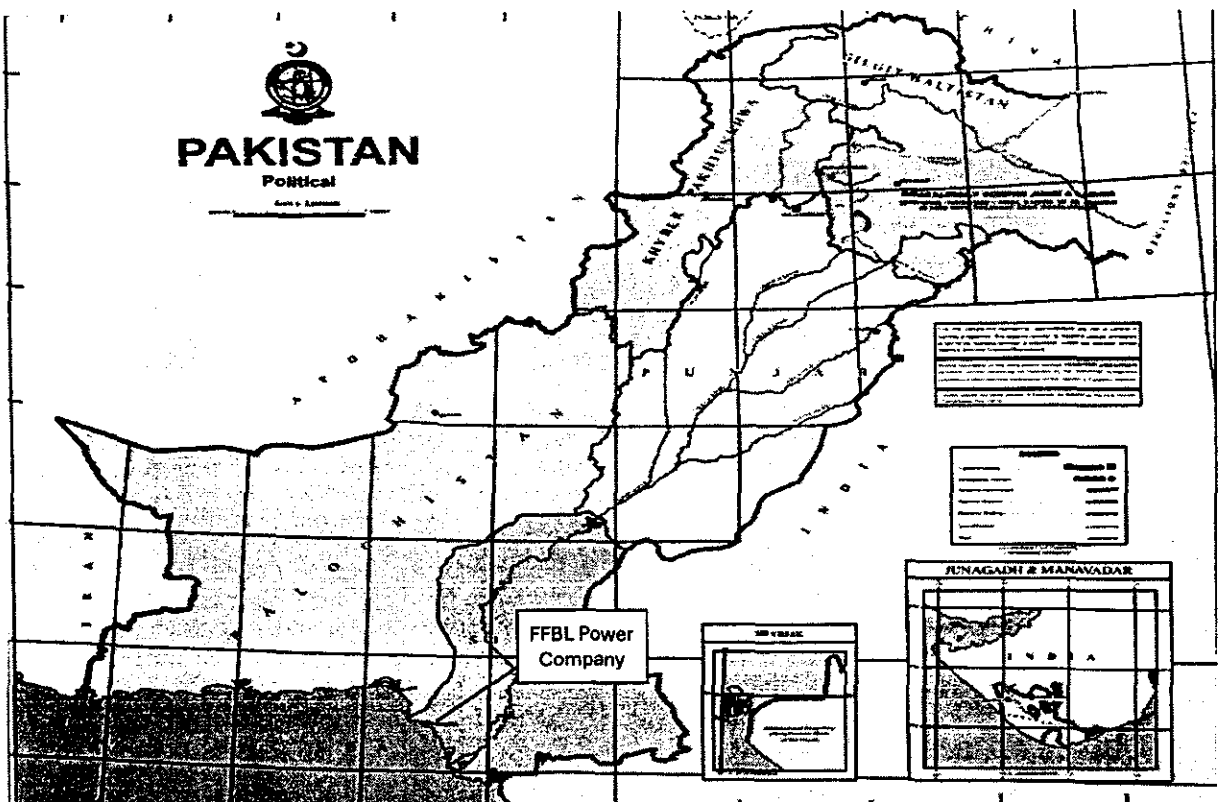
- 2.1.1 The Project Site is within the existing FPCL Plant site

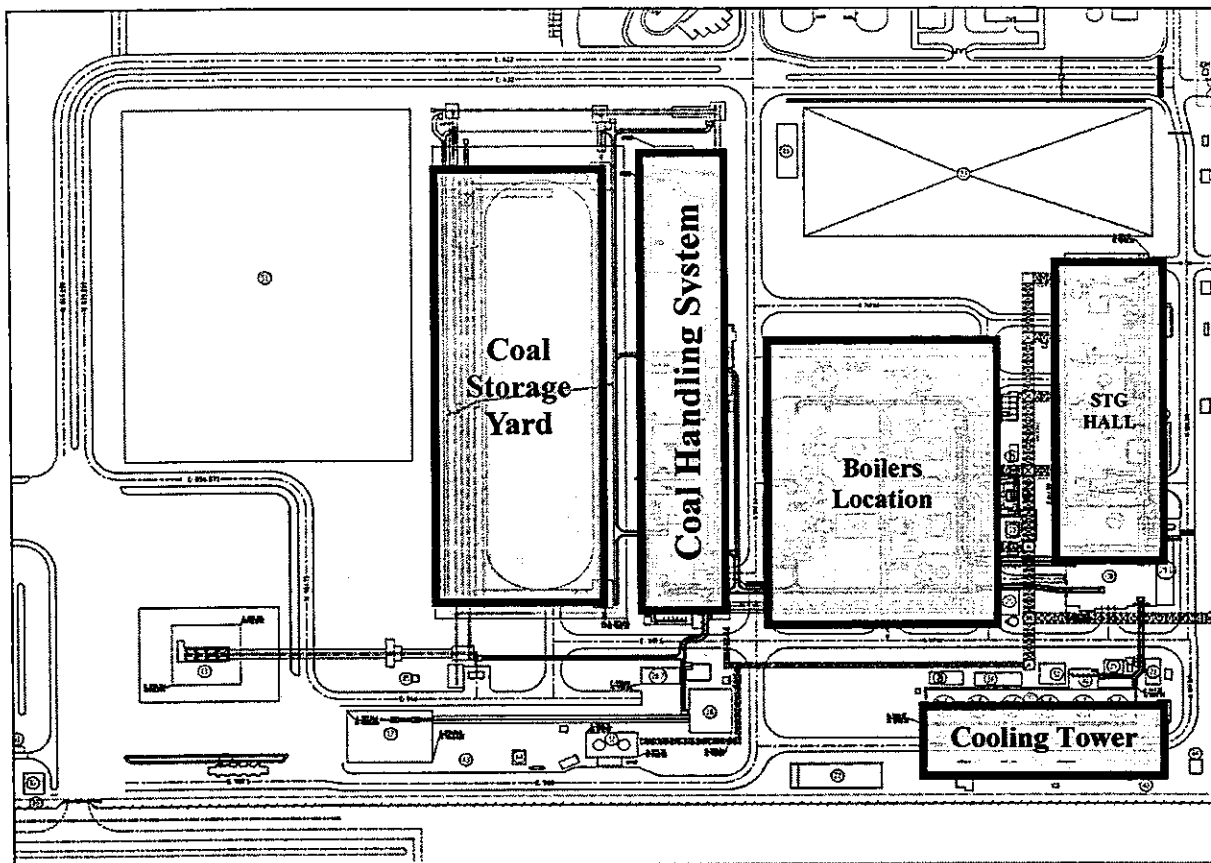
located in the Eastern Industrial Zone, Bin Qasim, Karachi.

2.1.2 Given the following characteristics for site selection. The site meets the essential criteria

- 2.1.2.1 Land availability within existing Plant site.
- 2.1.2.2 Reliable Power and Steam availability.
- 2.1.2.3 Availability of water and other utilities in near proximity.
- 2.1.2.4 Suitability for the construction of intake / outfall structures.
- 2.1.2.5 Sea Port Vicinity for equipment and more importantly for Rock Phosphate import.
- 2.1.2.6 Availability of road infrastructure.
- 2.1.2.7 Low cost of site development and suitable topographic / geological conditions.
- 2.1.2.8 Minimum socio-economic and environment implications of the Project such as displacements, availability of effluents disposal area etc.

2.1.3 The site co-ordinates are 67 ° 25' longitudes east, 24°50' latitude north, about 45 km east / south east from Karachi.





2.2. TOPOGRAPHY AND SUBSOIL CONDITIONS

- 2.2.1 The site is located in an almost flat zone close to the existing complex.
- 2.2.2 The Available soils test performed for structures in the neighborhood show that the subsoil consists of very dense fine to medium coarse sand with some silt. The soil stratigraphy seems homogeneous in this area and we can suppose that the soils characteristics will be the same on the new plant location
- 2.2.3 Based on the existing soil tests, the allowable bearing pressure on the soil can reach 2.00 to 3.00 kg/cm² depending of the embedment depth.
- 2.2.4 The water table is very deep (more than 20.00 m). Due to the fact that the area is flat, the earthworks volume will be reduced to a leveling.

2.3. CLIMATIC & AMBIENT CONDITIONS

a)	BAROMETRIC PRESSURE
----	---------------------

	Average	1005 mbar \pm 10 mbar	-
	Maximum variation speed	+10 mbar in hour	-
		-20 mbar in hour	-

B) TEMPERATURE AND HUMIDITY			
	Design conditions	43	°C with RH 45%
	For outdoor Electrical & Instruments	50	°C with RH 85%
	Average conditions (Yearly)	31	°C with RH 60%
	Minimum (winter)	1	°C with RH 100%

RAINFALL		
Maximum in 24 hours	207	mm
During 1 hour		-
-for storm water sewer	50	mm/hour
-for waste water treatment	40	mm/hour

3. PROJECT IMPLEMENTATION STRATEGY

3.1. Existing Configuration

Total Steam Production: ~490 TPH from Boilers 1 & 2

STGs:

STG 1 (10 MW, 60 Hz): Running at 9 MW

STG 2 & 3 (24 MW each, 60 Hz): Running at ~12.5 MW each

STG 4 (60 MW, 50 Hz): Running at 44 MW

3.2. Post Modification Configuration

- The plant will continue to operate with its existing coal-fired boilers, with an optimized steam supply strategy.
- Steam allocation:
 - STG 10 MW \rightarrow Receiving 200 TPH (Running at 9 MW)

- STG 24 MW (x2) → Receiving 68 TPH each (Running at 17.5 MW each, up from 12.5 MW) allocated for new BPC
- STG 60 MW → Receiving 164 TPH (Running at 44 MW)

3.3. Optimization Strategy

- Rebalancing of existing load through improved STG output
- Minor internal reconfiguration of switchgear and metering
- No additional boiler or turbine installations
- Use of frequency converters for BPCs operating on different frequency requirements.

3.4. Procurement and Equipment Installation

- The modification primarily focuses on reconfiguring turbine output and upgrading power distribution infrastructure, rather than acquiring new turbines.
- Transformers and, frequency converters will be installed to facilitate seamless power delivery to FoST.
- Grid interconnection adjustments will be made to enable dedicated power export to FoST from FPCL's existing 60 Hz shared facility with FFC.

4. FUEL AND EMISSIONS

4.1. FUEL

- 4.1.1 The Project expects to utilize approximately 500,000 MT/annum (for 310 days of operations) of coal (as per required specifications). The Project boiler technology allows use of different quality of coals including imported and indigenous coal. However, at present, the coal is expected to be imported for the project as the Company sees no issues with the availability of quality coal as per required specifications in the international market. Use of indigenous coal as when reliably available can be used. Given the proximity of the Project to the port, the Project expects to utilize either the existing facilities of the Karachi Port Trust (KPT) or the upcoming Pakistan Bulk Terminal facilities for coal receiving and handling.
- 4.1.2 In order to mitigate any fuel availability, risk the Project includes a coal storage yard of 60,000MT storage, which is sufficient for 40 Days operation at 100 % plant load.
- 4.1.3 The basic characteristics of coal range which can be utilized by the project are as under:

Coal Characteristics	
LHV	3000 ~ 3400 Kcal/kg
Moisture	30~50 %
Ash	3~12 %
Volatile matters	20~30 %
Sulphur	0.1~1.65 %

4.2. EMISSION LIMITS

- 4.2.1 The whole installation will be in accordance to the World Bank Guidelines (WBG) and Pakistan National Environmental Quality Standards (NEQS). The project will be designed to remain within the following emissions limits:

Emission Limits (dry at 6% O ₂)	
NO _x	510 mg/Nm ³
SO _x	500 mg/Nm ³
Dust	50 mg/Nm ³
CO	800 mg/Nm ³

5. TECHNICAL CHOICES

5.1. Frequency Converter Integration

5.1.1 Electrical Specifications

- **Power Capacity:** 10 MW (single or multiple units, each of 2 MW).
- **Input Voltage:** 13.8 kV, 60 Hz (single unit), 60 Hz.
- **Output Voltage:** 3-phase, 5-wire (3P+N+E), 50 Hz.
- **Input Frequency:** 60 Hz.
- **Output Frequency:** 50 Hz.
- **Power Factor:** Adjustable > 0.95.
- **Efficiency:** ≥ 98% at full load.
- **Voltage Regulation:** ±1% or better.
- **Frequency Regulation:** ±0.1 Hz or better.

5.1.2 Converter Type

- **Technology:** Solid-state IGBT-based or IGCT-based frequency converter.
- **Topology:** AC-DC-AC (Rectifier + Inverter) or Direct Matrix Converter.
- **Cooling System:** Air-cooled.

5.1.3 Protection Features

To ensure reliability, the frequency converter includes advanced protection mechanisms:

- Overvoltage and Undervoltage Protection.
- Overcurrent and Short-Circuit Protection.
- Thermal Overload and Surge Protection.

5.1.4 Control and Communication

- Control System: PLC/DCS integration with HMI control panel.
- Communication Protocols: Modbus, Profibus, Ethernet/IP.
- Remote Monitoring: SCADA-ready and IoT-enabled for real-time diagnostics.

5.1.5 Mechanical Specifications

- Cooling Method: Water-cooled (high efficiency) or Forced air-cooled.
- Enclosure Protection: IP54 (indoor) / IP65 (outdoor).
- Operational Temperature Range: -10°C to +45°C.
- Humidity Resistance: ≤ 95% non-condensing.

5.1.6 Compliance and Standards

- Compliance: IEC 61800, IEEE, CE, ISO 9001 certified.
- Harmonic Distortion: < 5% THD (IEEE 519 compliant).
- Electromagnetic Compatibility: IEC 61000 standards.

5.1.7 Additional Features

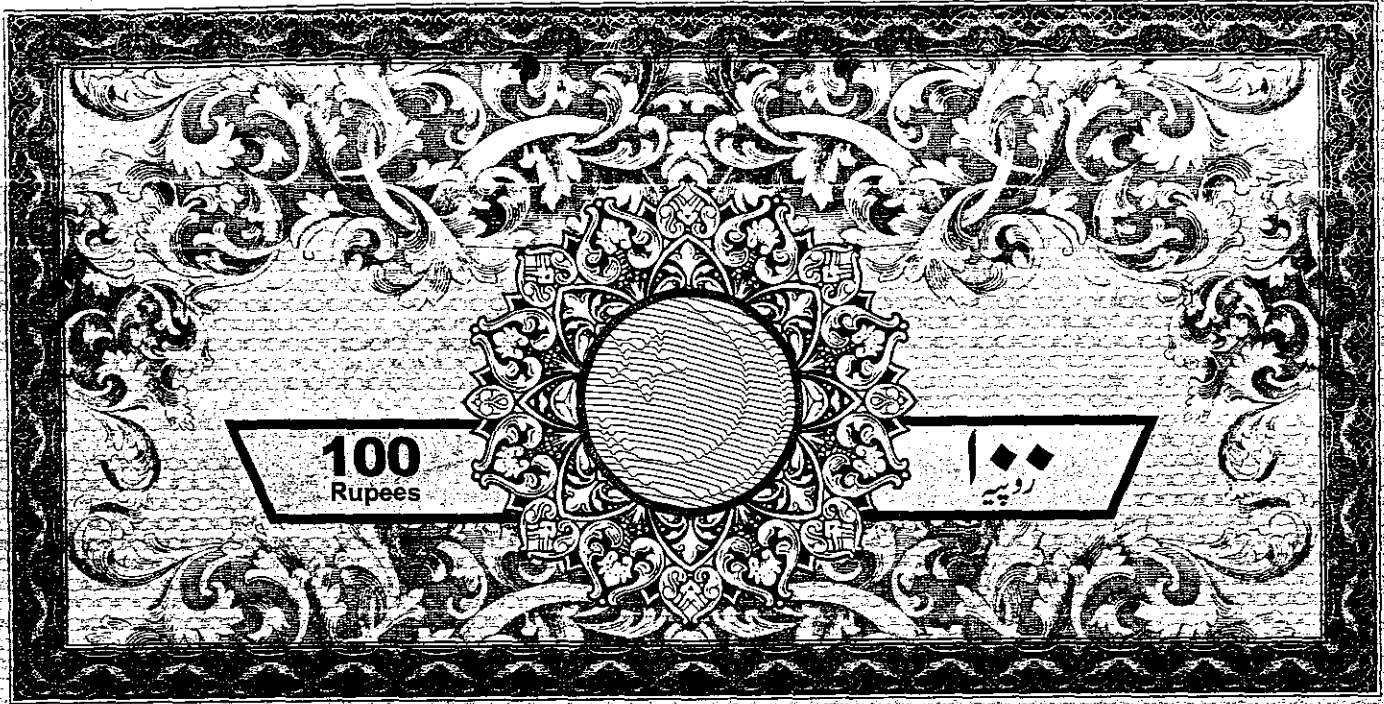
- Soft Start/Stop Functionality for smooth operation.
- Redundancy for Critical Components to enhance reliability.
- Energy Efficiency Optimization for minimal power loss.
- Load Sharing Capability (Parallel Operation) to ensure flexibility.

6. EXPECTED POWER PRODUCTION

6.1. Power Production Efficiency and Reliability

- **Steam Turbine Optimization:** Running 24 MW STGs at 17.5 MW each improves plant efficiency.
- **Stable Power Distribution:** Integration of a frequency converter and transformers ensures seamless power conversion for the Data Center.
- **Grid Stability:** Adjusted load balancing and distribution strategy prevents system overload or fluctuations.

The modification is technically feasible, commercially sound, and aligned with national goals for industrial growth and grid reliability.



**BEFORE THE NATIONAL ELECTRIC POWER
REGULATORY AUTHORITY**

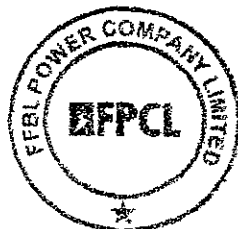
AFFIDAVIT

I, Lt Col Ali Siddiq (Retd), Company Secretary, FPCL, being the duly authorized representative of FFBI Power Company Limited, hereby declare that FPCL was granted a Generation License under the Act, bearing License No. SGC/111/2015.

DEPONENT

Lt Col Ali Siddiq (Retd)
Company Secretary

Authorized Representative
FFBI Power Company Ltd.
Date June 30, 2025



**STATEMENT OF PREVIOUS LICENSE APPLICATION REFUSALS UNDER
THE ACT**

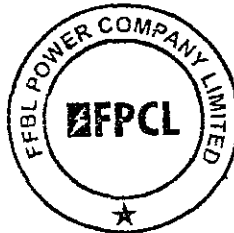
I, Lt Col Ali Siddiq (Retd), S/o Muhammad Siddiq, holding CNIC No. 35302-1977841-9, being the duly authorized representative of FFBL Power Company Limited (FPCL), hereby declare that FPCL has never been refused the grant of a license under the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (the "NEPRA Act").

This statement is being submitted in compliance with the Regulation 3(h) of NEPRA Licensing (Application, Modification, Extension And Cancellation) Procedure Regulations, 2021, as part of FPCL's application for grant of the Distribution License.

DEPONENT

**Lt Col Ali Siddiq (Retd)
Company Secretary**

Authorized Representative
FFBL Power Company Ltd.
Date June 30, 2025



FoST



POWER SUPPLY STUDY

POWER SUPPLY INTERCONNECTION STUDY
TO FRTZ AT 11KV IN HYBRID MODE
(SOLAR + WIND + FPCL 60 HZ SYSTEM+ FPCL 50 HZ SYSTEM)

CLIENT:

**FOST (FONGREEN SILICON
TECHNOLOGY LIMITED)**

N-5, KARACHI, THATTA ROAD

CONSULTANT:

OMS PVT LTD

251-CCA, BLOCK FF, PHASE IV, DHA,
LAHORE, PAKISTAN.

TEL: +92-42-35748650-55

www.omsltd.net

JUNE 2025

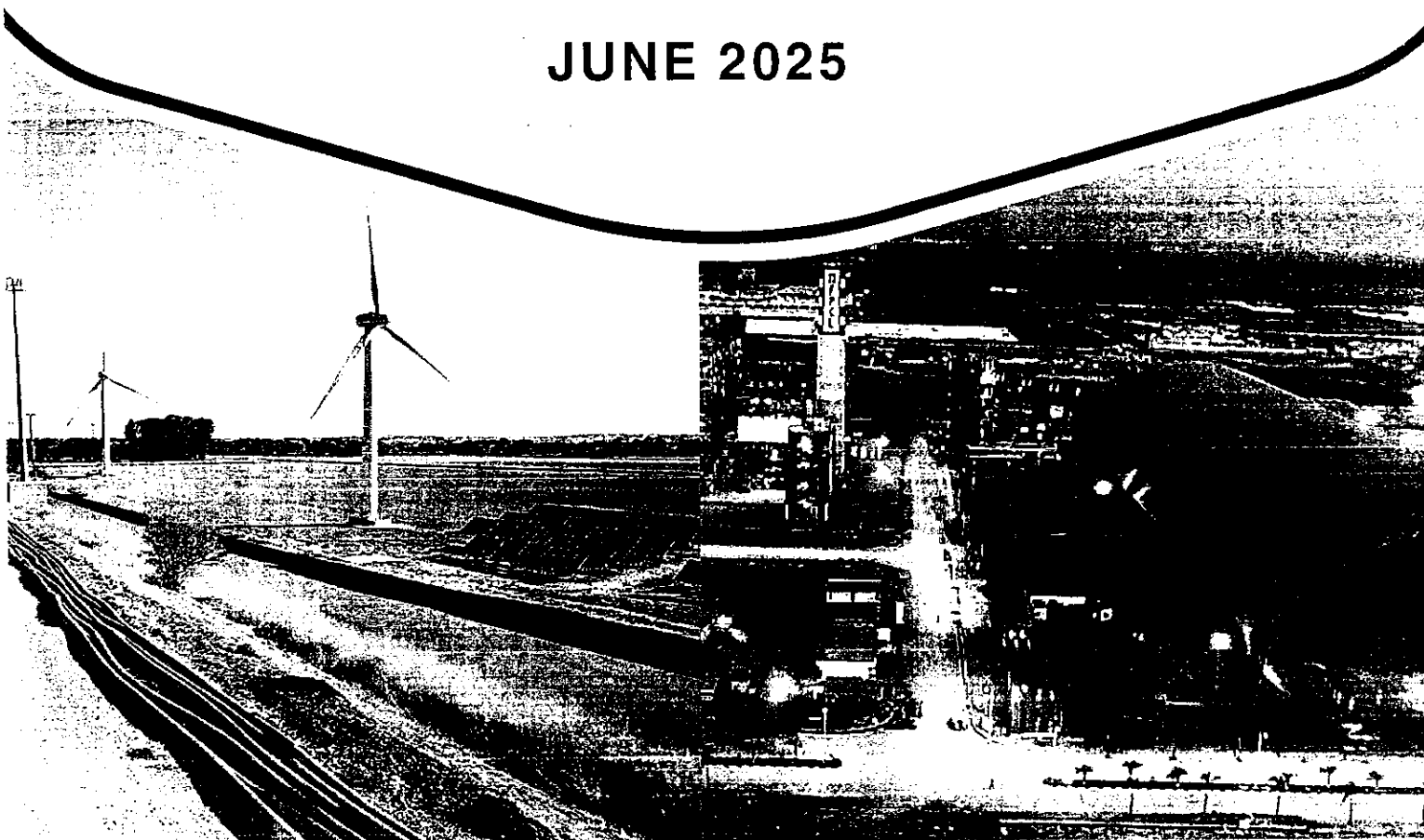


Table of Contents

Executive Summary	7
Introduction.....	15
System Configuration Overview.....	16
Power Sources.....	16
Transmission Network.....	18
Load Demand.....	18
Methodology	18
Load Flow Analysis	20
Reactive Power Compensation Study.....	20
Short Circuit Analysis.....	20
Transient Stability Analysis.....	21
Study Assumptions	21
System Modelling in PSS/E.....	21
Generator Modelling.....	21
Back-to-Back Frequency Converter Modelling.....	22
Transformer Modelling	23
Cable Modelling.....	24
Aggregated PV Plant Model	25
Wind Turbine Model.....	27
Study Results	29
Load Flow Analysis for Cable Option-I.....	30
Load Flow Analysis for Cable Option-II.....	34
Reactive Power Compensation Study.....	38
Short Circuit Analysis.....	39
Conclusion	45
Annexure-A (FRTZ Data)	
Exhibit A.1 (Power Plan)	
Exhibit A.2 (Master Plan)	
Exhibit A.3 (SLD)	
Exhibit A.4 (Frequency Data)	

Exhibit A.5 (PV Data)

Exhibit A.6 (WTG Data)

Annexure-B (FPCL/FFBL Plant Data)

Exhibit B.1 (60Hz System SLD)

Exhibit B.2 (GTG Data)

Exhibit B.3 (STG Data)

Exhibit B.4 (630SQMM Cable Specs)

Exhibit B.5 (50Hz System SLD)

Exhibit B.6 (Step-up Transformer Data)

Exhibit B.7 (Generator Data)

Annexure-C (Load Flow SLDs)

Exhibit C.1 (Option-I)

Exhibit C.2 (Option-II)

List of Figures

Figure 1: Loading with cable selection of 500mm ² – Al.....	10
Figure 2: Loading with cable selection of 630mm ² – Cu.....	11
Figure 3: Transformer loading with cable selection of 500mm ² – Al	11
Figure 4: Transformer loading with cable selection of 630mm ² – Cu	12
Figure 5: Additional reactive power requirement.....	12
Figure 6: Three Phase & Line to Ground MVA SC Level at 13.8kV FFB, for varying number of Sources at 60Hz Side	13
Figure 7: Three Phase & Line to Ground MVA SC Level at 13.8kV FPCL, for varying number of Sources at 60Hz Side	13
Figure 8: Technical Specification of 132/11kV Step-up Transformer for 50Hz 75MVA Generating Unit.....	16
Figure 9: Technical Specification of PV Inverter.....	17
Figure 10: Technical Specification of 7.5MW WTG	17
Figure 11: Technical Specification of 7.5MW WTG Step-up Transformer	18
Figure 12: Parameters considered for VSC based HVDC model.....	23
Figure 13: Parameters considered for 13.8/11kV, 8/10MVA Transformer	24
Figure 14: Parameters considered for 11kV Cable (Option-I: 1/C 500mm ² (578.6 Amps) – Al)	25
Figure 15: Parameters considered for 11kV Cable (Option-I: 1/C 630mm ² (813.4 Amps) – Cu)	25
Figure 16: Aggregated PV Model Based on WECC Recommendation	25
Figure 17: Parameters considered for PV Inverter Transformer	26
Figure 18: Parameters considered for PV Inverter	27
Figure 19: Parameters considered for 7.5MW WTG	28
Figure 20: Parameters considered for 7.5MW WTG Step-up Transformer.....	29
Figure 21: Percentage Loading of FRTZ Assets for Option-I for Normal Case of 3 Sources ...	31
Figure 22: Percentage Loading of FRTZ Assets for Option-I for Normal Case of 4 Sources ...	31
Figure 23: Percentage Loading of FRTZ Assets for Option-I for Normal Case of 5 Sources ...	32
Figure 24: Percentage Loading of FRTZ Assets for Option-II for Normal Case of 3 Sources..	35
Figure 25: Percentage Loading of FRTZ Assets for Option-II for Normal Case of 4 Sources..	35
Figure 26: Percentage Loading of FRTZ Assets for Option-II for Normal Case of 5 Sources..	36
Figure 27: Short Circuit MVA at 11kV FRTZ Bus for Normal Case of 3 Sources	42
Figure 28: Short Circuit MVA at 11kV FRTZ Bus for Normal Case of 4 Sources	43
Figure 29: Short Circuit MVA at 11kV FRTZ Bus for Normal Case of 5 Sources	45

List of Tables

Table 1: Study Scenarios.....	19
Table 2: Overview of Generating Units in 60Hz System.....	21
Table 3: Overview of Generating Units in 50Hz System.....	22
Table 4: Percentage Loading on FRTZ Site Interconnection for Option-I under Normal Condition for Normal Case of 3 Sources.....	30
Table 5: Percentage Loading on FRTZ Site Interconnection for Option-I under Normal Condition for Normal Case of 4 Sources.....	30
Table 6: Percentage Loading on FRTZ Site Interconnection for Option-I under Normal Condition for Normal Case of 5 Sources.....	30
Table 7: Percentage Loading on FRTZ Site Interconnection for Option-I under N-1 Condition for Normal Case of 3 Sources.....	32
Table 8: Percentage Loading on FRTZ Site Interconnection for Option-I under N-1 Condition for Normal Case of 4 Sources.....	33
Table 9: Percentage Loading on FRTZ Site Interconnection for Option-I under N-1 Condition for Normal Case of 5 Sources.....	34
Table 10: Percentage Loading on FRTZ Site Interconnection for Option-II for Normal Case of 3 Sources.....	34
Table 11: Percentage Loading on FRTZ Site Interconnection for Option-II for Normal Case of 4 Sources.....	34
Table 12: Percentage Loading on FRTZ Site Interconnection for Option-II for Normal Case of 5 Sources.....	34
Table 13: Percentage Loading on FRTZ Site Interconnection for Option-II under N-1 Condition for Normal Case of 3 Sources.....	37
Table 14: Percentage Loading on FRTZ Site Interconnection for Option-II under N-1 Condition for Normal Case of 4 Sources.....	37
Table 15: Percentage Loading on FRTZ Site Interconnection for Option-II under N-1 Condition for Normal Case of 5 Sources.....	38
Table 16: Additional Reactive Power Compensation Requirement for FRTZ Bus for Normal Case with 3 Sources.....	39
Table 17: Additional Reactive Power Compensation Requirement for FRTZ Bus for Normal Case with 4 Sources.....	39
Table 18: Additional Reactive Power Compensation Requirement for FRTZ Bus for Normal Case with 5 Sources.....	39
Table 19: Short Circuit Levels for 13.8kV FFBL Bus based on IEC 60909 Method of Calculation for Normal Case of 3 Sources.....	40
Table 20: Short Circuit Levels for 13.8kV FPCI Bus based on IEC 60909 Method of Calculation for Normal Case of 3 Sources.....	41
Table 21: Short Circuit Levels for 11kV FRTZ (50Hz System) Bus based on IEC 60909 Method of Calculation for Normal Case of 3 Sources.....	41
Table 22: Short Circuit Levels for 13.8kV FFBL Bus based on IEC 60909 Method of Calculation for Normal Case of 4 Sources.....	42

Table 23: Short Circuit Levels for 13.8kV FPCL Bus based on IEC 60909 Method of Calculation for Normal Case of 4 Sources.....	43
Table 24: Short Circuit Levels for 11kV FRTZ Bus based on IEC 60909 Method of Calculation for Normal Case of 4 Sources.....	43
Table 25: Short Circuit Levels for 13.8kV FFBL Bus based on IEC 60909 Method of Calculation for Normal Case of 5 Sources.....	44
Table 26: Short Circuit Levels for 13.8kV FPCL Bus based on IEC 60909 Method of Calculation for Normal Case of 5 Sources.....	44
Table 27: Short Circuit Levels for 11kV FRTZ Bus based on IEC 60909 Method of Calculation for Normal Case of 5 Sources.....	44

List of Abbreviations

PV	Photovoltaic
WTG	Wind turbine generator
P.F	Power Factor
kV	Kilo Volts
I^{''}k	Short circuit current
MVA	Mega volt ampere
MVA_{sc}	Short circuit MVA
MW	Megawatt
MVAR	Mega VAR
Al	Aluminum
Cu	Copper
GTG	Gas turbine generator
STG	Steam turbine generator
VSC	Voltage Sourced converter
HVDC	High voltage direct current
SLD	Single Line Diagram
KM	Kilo meter
SC	Short circuit
B2B	Business-to-Business Model

Executive Summary

FonGreen Silicon Technologies Ltd (FoST) intends to establish a technology zone with the title Foundation Renewable Technologies Zone (FRTZ) on N-5 Karachi Thatta road having an area of 202 Acres (approx.) as per Master Plan attached in Annexure-A, which will consist of following major facilities load as per SLD attached in Annexure-A.

- Data Center
- EV Manufacturing Facility
- Solar Panel Manufacturing Facility

FRTZ is expected to reach ultimate load demand of 18.5MW in 2028, as per below power plan.

Ser	Timeline	Power Requirement (MW)				Installed Capacity (MW)			Remarks
		DC	FRTZ	External Entities	Cumulative	Solar	Wind	Grid	
1.	Mar 2026	2.0	0.5	-	2.5	3.5	-	2.5 (11 KV)	11 KV line
2.	Mar 2027	4.0	1.5	5.0	10.5	8.0	-	10.5 (11 KV)	
3.	Mar 2028	6.0	2.5	10.0	18.5	10.0	7.5	18.5 (11 KV)	• WTG installed • Additional 11 KV line or migration to additional 132 KV (decision to be taken in Mar 2027)

In order to meet the above load demand at an optimized rate FRTZ will purchase power from FPCL at 11 kV through B2B model and blend this energy with Solar and Wind energy to form the Hybrid Energy Mix model. FPCL has committed to provide 8.5 MW power from its 13.8kV, 58 MW (60 Hz) Fertilizer plant at 11kV 50 Hz through two underground cable feeders each 3.5 km having option of either 1C, 500 sq.mm XLPE Aluminum (Al) cable or 1C, 630 sq.mm XLPE Copper (Cu) cable along with installation of frequency converters (60/50 Hz).

FPCL is also working on provision of additional 10~12 MW power supply to FRTZ by March 2028, at 11kV through its 60 MW (50 Hz) system via two underground cable feeders each 3.5 km having option of either 1C, 500 sq.mm XLPE Aluminum (Al) cable or 1C, 630 sq.mm XLPE Copper (Cu) cable.

This report evaluates the feasibility of integrating a hybrid energy mix comprising power as defined above using Siemens PSS software, the study spans March 2026 to March 2028 and assesses load flow, short circuit levels and reactive power needs with the critical aim of maintaining a power factor of 0.9 at 11kV FRTZ bus interconnection point.

To have optimized utilization of power from various sources for the duration from March 2026 to March 2028, following contributions from each source has been considered:

Scenario	Year	PV/Wind (Max Availability/ Non- Availability)	Power Import Through FPCL 60 Hz system (MW)	PV Generati on (MW)	Wind Generation (MW)	Power Import Through FPCL 50Hz (MW)	Remarks
1	March 2026	Max. Avl	0	2.5	N/A	N/A	Demand met through PV
2	March 2026	Non-Avl	2.5	0	N/A	N/A	Demand met through FPCL 60 Hz system
3	March 2027	Max. Avl	3.5	5.5	1.5	N/A	Demand met through PV+7.5 MW WTG+ FPCL 60 Hz system
4	March 2027	Non-Avl	8.5	0	0	N/A	2 MW deficit against ... required power of 10.5 MW as per power plan. This deficit to be over come through FPCL 50 Hz system subject to its availability by March 2027 or through some other source or shedding/re stricting non-critical load

5	March 2028	Max. Avl	8.5	7	3	0	Demand met through PV+ FPCL 60 Hz system+02 WTG's(7.5 MW each)
6	March 2028	Non-Avl	8.5	0	0	10	Demand met through FPCL 60 Hz system+ FPCL 50 Hz system through 02 feeders or through some other source

In above table, for power import from FPCL 60 Hz system, following three sub-scenarios w.r.t STGs and GTGs are considered:

Normal case of 03 sources i.e. Steam Turbines (2x30 MVA + 1x12.5 MVA STGs)

Normal case of 04 Sources i.e. 03 STGs & 1x 36 MVA Gas turbine (GTG)

Normal case with 05 Sources i.e. 03x STGs+ 02 GTGs

Key Findings

Load Flow

The Load flow simulations performed as per above power contribution table with cases for FPCL STGs and GTGs. The simulations does not reveal any bottleneck issue of Voltage limit violation or any overloading of Underground Cable or transformer w.r.t. NEPRA grid code. However, in 2027 during non-availability time of Solar and Wind power the deficit of 2 MW needs to be taken care by restricting/shedding the non-critical load or by making availability of power through FPCL 50 Hz system or through some other source.

Loading of Underground Cables

Following two underground cable options are considered for provision of power supply from FPCL to FRTZ:

Option-I:

11kV, 1C 500 sq.mm, XLPE Al cable

Option-II:

11kV, 1C 630 sq.mm XLPE Cu cable

- Under normal load flow conditions, the cable interconnections remain well within capacity (<50%) for both options I and II.
- Under N-1 conditions, peak loading is observed at 100% (Option-I) and 66% (Option-II), which still meets operational limits criteria.

If there are no further plans to increase facility demand above 18.5MW then 500mm² Al cable is a viable option. However, we suggest opting for 630mm² Cu cables (Option-II) to ensure long-term capacity and thermal margin.

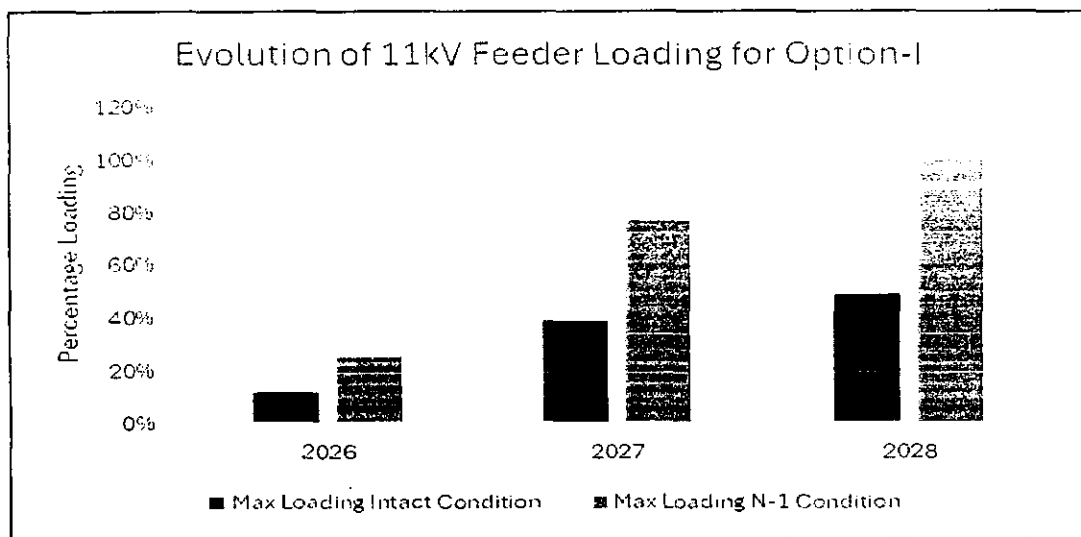


Figure 1: Loading with cable selection of 500mm² – Al

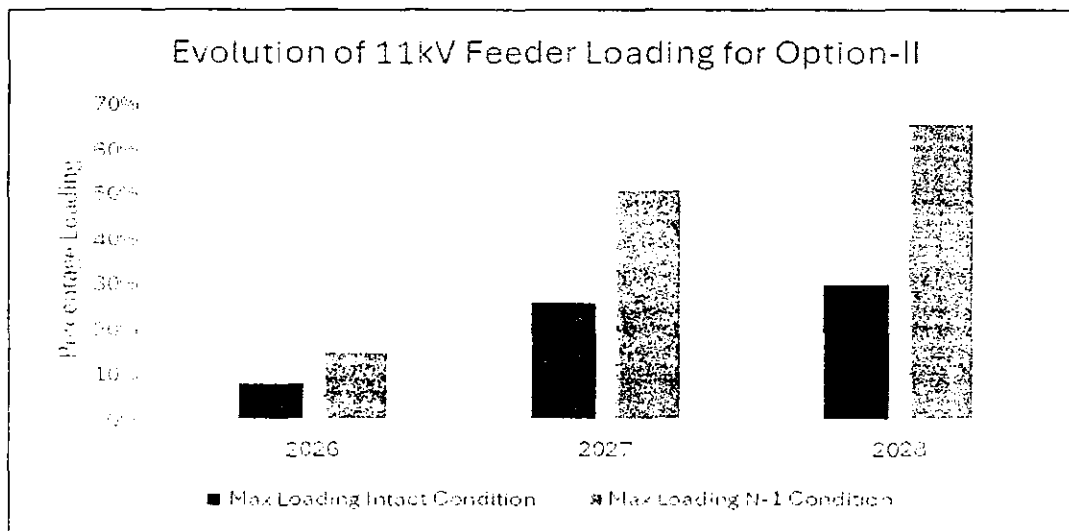


Figure 2: Loading with cable selection of 630mm² – Cu

Loading of 13.8/11kV, 8/10MVA Transformer

Loading observed on 13.8/11kV, 8/10MVA Transformer under normal and N-1 contingency is well within Transformer capability.

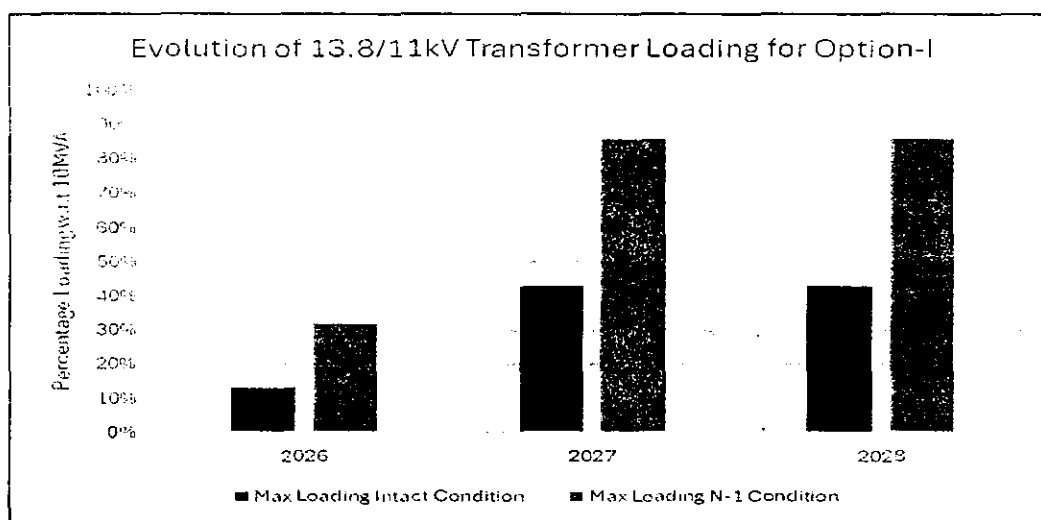


Figure 3: Transformer loading with cable selection of 500mm² – Al

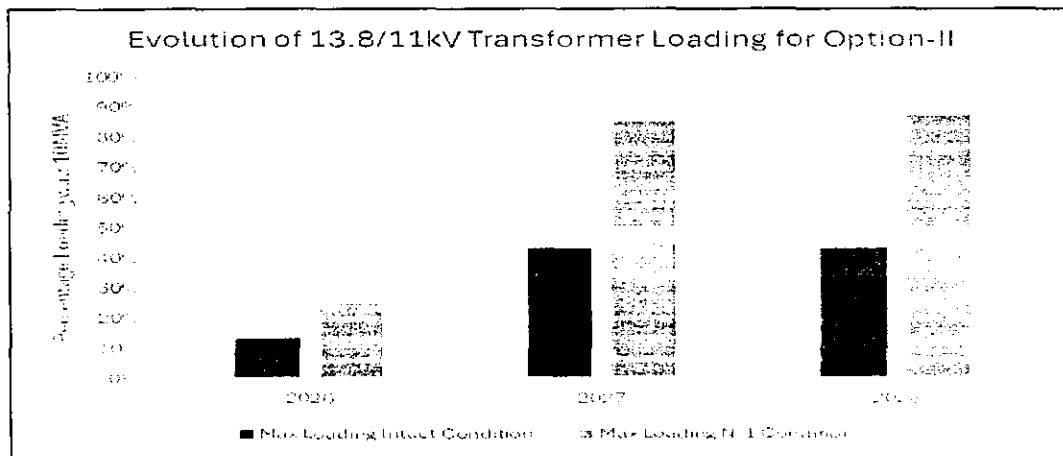


Figure 4: Transformer loading with cable selection of 630mm² - Cu

Reactive Power Requirement

- To maintain 0.9 PF at 18.5 MW peak demand, up to 20 MVAR additional compensation is required. This additional requirement is based on the fact that there is limited reactive power compensation available from PV & Wind. To compensate for reactive power demand of facility and maintain a Voltage profile of 11kV, 20MVAR Reactive Power Compensation is necessary.
- VSC-based Frequency Converters are assumed to provide ± 5 MVAR support each.

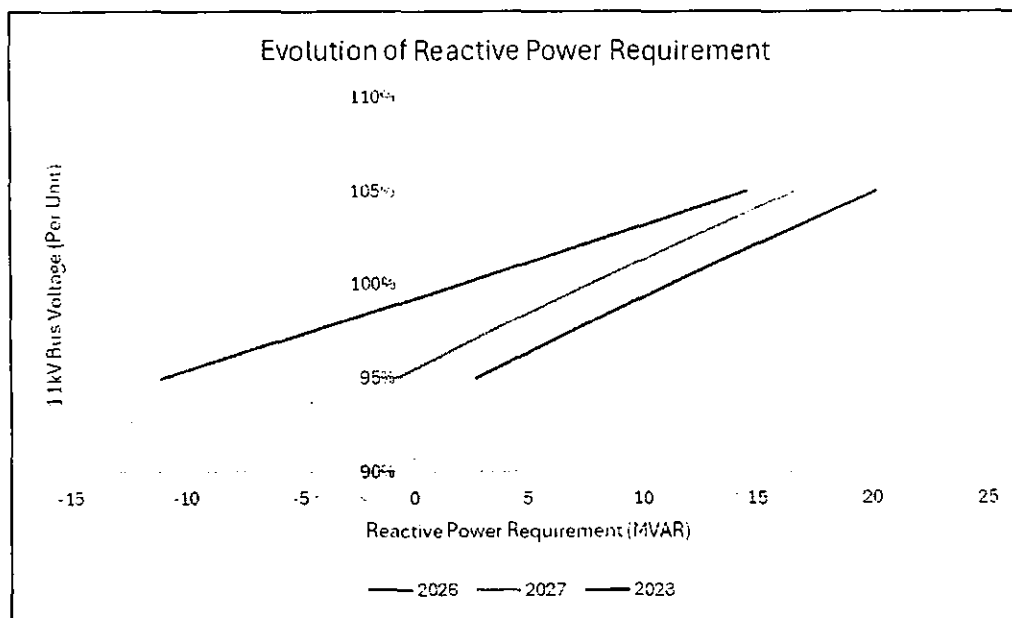


Figure 5: Additional reactive power requirement

Short Circuit Level

- Short Circuit level on 60Hz side of the system is directly impacted by the number of machines online. The short circuit level is not affected by power being exported to FRTZ site via Frequency Converter.
- Short circuit levels at 50Hz side is impacted by load demand of the FRTZ facility and Renewable Generation online. 11kV 50Hz feeder connection to FPCL will also impact the Short Circuit levels at FRTZ site.

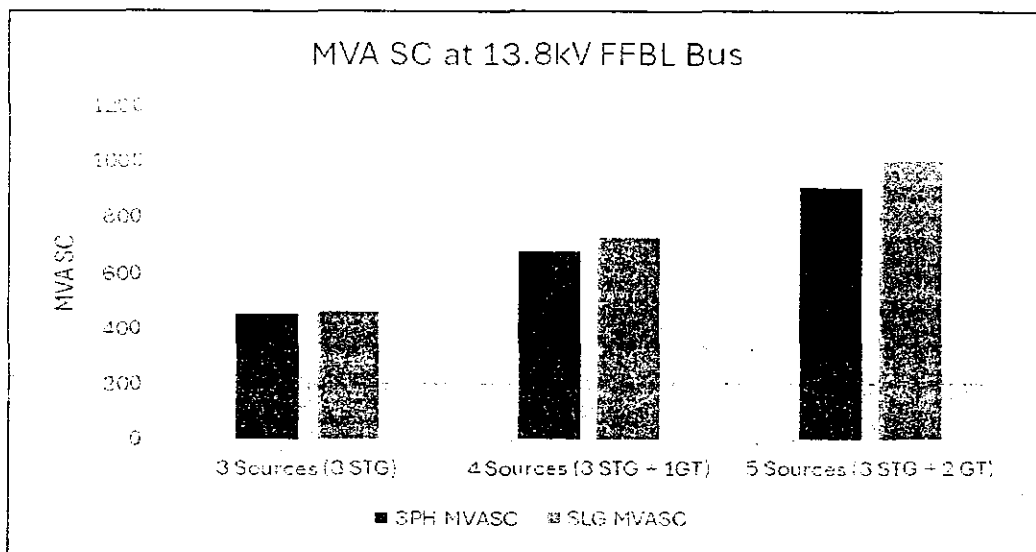


Figure 6: Three Phase & Line to Ground MVA SC Level at 13.8kV FFBL for varying number of Sources at 60Hz Side

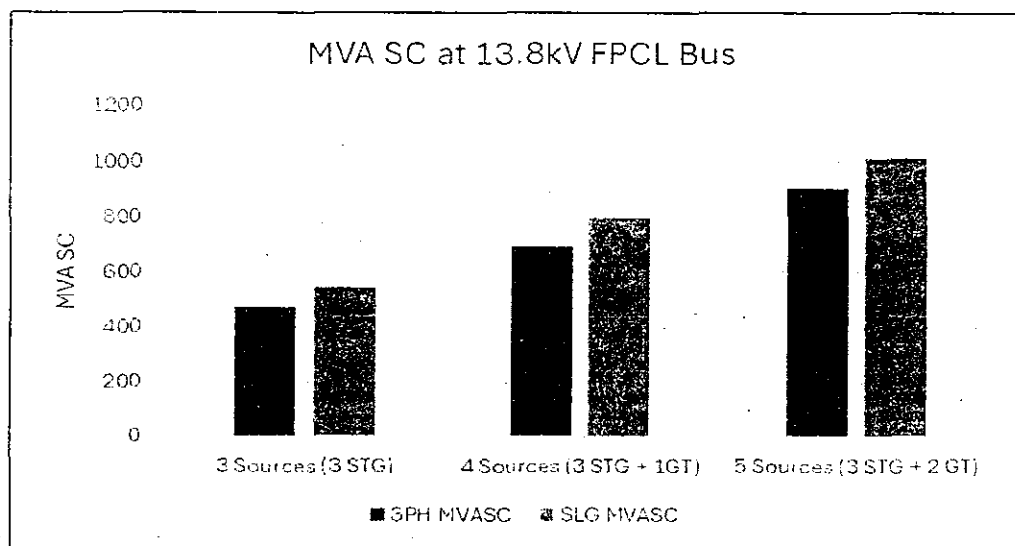


Figure 7: Three Phase & Line to Ground MVA SC Level at 13.8kV FPCL for varying number of Sources at 60Hz Side

Transient Stability Analysis

Transient stability analysis plays a vital role in assessing the dynamic response of a power system to disturbances. However, its impact in this study is limited being an interconnection on 11 kV voltage level. Following constraints lead to adopt the generic model with typical values based on best industrial practices

- **Absence of Detailed Dynamic Models**
 - No tuned dynamic models/parameters were provided for the Synchronous generators of FPCL 60Hz & 50Hz system, PV inverters and Wind turbines.
- **Limited Technical Information on Static Frequency Converters**
 - Only basic specifications were available for the 10 MVA industrial back-to-back converter system.
 - Dynamic responses such as frequency ride-through, control mode transitions, and fault behavior are not defined, restricting accurate/precise modeling in PSSE.
- **Assumption of Ideal Converter Behavior**
 - The converters were modeled as VSC-based HVDC with assumed reactive compensation capabilities (± 5 MVAR).

The adoption of generic models and typical values against parameters replicate the plant behavior that gives basic idea about the transient response/behavior. The dynamic simulations based on above criteria do not depict any constraint.

Introduction

FonGreen Silicon Technologies Ltd (FoST) intends to establish a technology zone with the title Foundation Renewable Technologies Zone (FRTZ) on N-5 Karachi Thatta road having an area of 202 Acres (approx.) as per Master Plan attached in Annexure-A, which will consist of following major facilities load as per SLD attached in Annexure-A.

- Data Center
- EV Manufacturing Facility
- Solar Panel Manufacturing Facility

FRTZ is expected to reach ultimate load demand of 18.5MW in 2028, as per below power plan.

Ser	Timeline	Power Requirement (MW)				Installed Capacity (MW)			Remarks
		DC	FRTZ	External Entities	Cumulative	Solar	Wind	Grid	
1.	Mar 2026	2.0	0.5	-	2.5	3.5	-	2.5 (11 KV)	11 KV line
2.	Mar 2027	4.0	1.5	5.0	10.5	8.0	-	10.5 (11 KV)	
3.	Mar 2028	6.0	2.5	10.0	18.5	10.0	7.5	18.5 (11 KV)	• WTG installed • Additional 11 KV line or migration to additional 132 KV (decision to be taken in Mar 2027)

In order to meet the above load demand at an optimized rate FRTZ will purchase power from FPCL at 11 kV through B2B model and blend this energy with Solar and Wind energy to form the Hybrid Energy Mix model. FPCL has committed to provide 8.5 MW power from its 13.8kV,58 MW(60 Hz) Fertilizer plant at 11kV 50 Hz through two underground cable feeders each 3.5 km having option of either 1/C,500 sq.mm XLPE Aluminum(Al) cable or 1/C,630 sq.mm XLPE Copper(Cu) cable along with installation of frequency converters (60/50 Hz).

FPCL is also working on provision of additional 10~12 MW power supply to FRTZ by March 2028, at 11kV through its 60 MW (50 Hz) system via two underground cable feeders each 3.5 km having option of either 1/C,500 sq.mm XLPE Aluminum(Al) cable or 1/C,630 sq.mm XLPE Copper(Cu) cable.

This report evaluates the feasibility of integrating a hybrid energy mix comprising power as defined above using Siemens PSS/E software, the study spans March 2026 to March 2028 and assesses load flow, short circuit levels and reactive power needs with the critical aim of maintaining a power factor of 0.9 at 11kV FRTZ bus interconnection point.

Technical Specifications	
Efficiency	
Max. Efficiency	99.05%
Low Load Efficiency	95.0%
Input	
Max. Input Voltage	1200 V
MPPT Voltage Range	150 ~ 1100 V
Max. Current per MPPT	65 A
Max. Short-Circuit Current per MPPT	115 A
Max. Output per MPPT	1000 kW
Start Voltage	250 V
MPPT Operating Voltage Range	100 V ~ 1200 V
Nominal Input Voltage	1000 V
Output	
Nominal AC Active Power	300,000 W
Max. AC Apparent Power	330,000 VA
Max. AC Active Power (cosφ=1)	330,000 W
Nominal Output Voltage	380 V, 3AC, 3φ
Rated AC Grid Frequency	50 Hz / 60 Hz
Nominal Output Current	216 A
Max. Output Current	239 A
Adjustable Power Factor Range	0.8 LG ~ 0.9 LD
Total Harmonic Distortion	THD < 1% (Rated)

Figure 9: Technical Specification of PV Inverter

Technical Specification of WTG are shown in Figure-10 whereas technical specification related to WTG Step-up Transformer are shown in Figure-11.


		Edition: B No.: GW-24CP.0029				
Parameters		Value				Unit
Rated Frequency		50 / 60				Hz
Rated Voltage (phase to phase)		1140				V
Rated Active Power (Pn)		5.3	6.2	7.2	7.5	MW
Rated Apparent Power (0.95 power factor)		5.57	6.52	7.57	7.89	MVA
Power Factor Range	Default	-0.95(ind) ~ +0.95 (cap)	-0.95(ind) ~ +0.95 (cap)	-0.95(ind) ~ +0.95 (cap)	-0.95(ind) ~ +0.95 (cap)	-
	Optional	-0.9(ind) ~ +0.9 (cap)	-0.9(ind) ~ +0.9 (cap)	-0.9(ind) ~ +0.9 (cap)	/	
Short-circuit Current (Maximum)		$P_n / (1.732 \times U_n \times 0.9 \times \text{Power Factor})$				-

Figure 10: Technical Specification of 7.5MW WTG

Parameters	Value															
Type of transformer	liquid-immersed transformer															
WTG rated power (MW)	3.85	4.0	4.5	4.55	5.0	5.27	5.3	5.6	6.0	6.2	6.25	6.45	6.7	7.15	7.2	7.5
Rated capacity of transformer (MVA)	4.05	4.2	4.8		5.3	5.6		5.9	6.3	6.6		6.8	7.1	7.6		8.0
No load loss (kW)	3.4	3.5	3.85		4.15	4.32		4.5	4.72	4.89		5.0	5.41	5.7		5.92
Load loss (kW)	33.4	34.4	39		42.9	44.7		45.2	46.4	50.5		51.7	58.9	62		64.5
Rated frequency	50 or 60 Hz															
Rated voltage at MV side	10kV or 22kV or 33kV or 35kV or others															
Rated voltage at LV side	1140V															
Number of phases	3 (phase A, B and C)															
Range of tap changer	$\pm 2 \times 2.5\%$															
Tap changer type	off-circuit tap changer															
Positive sequence impedance	7.5% ($\pm 10\%$)								9% ($\pm 10\%$)							
Vector group	Dyn11															
Star point of LV side of the equipment	grounded															
No-load current	$\leq 0.5\%$															

Figure 11: Technical Specification of 7.5MW WTG Step-up Transformer

Transmission Network

In Phase-I, FRTZ site will be connected to FPCL 60 Hz system through two 11kV underground cable feeders each having length of 3.5km after frequency conversion (60/50 Hz). Similarly, in Phase-II of the project FRTZ site will be connected FPCL 50 Hz system at 11 kV through two underground cable feeders each having length of 3.5km.

Load Demand

The total load demand of existing 60Hz network is 32.79MW. Out of this ~19.6MW is the demand of FFBL and remaining 13.3MW is the demand of FPCL.

The load demand of FRTZ Site is expected to increase from 2.5MW to 18.5 MW from 2026 to 2028 as per power plan.

Methodology

Since there is no existing software model of the entire facility. The existing 60Hz System and future planned 50Hz system shall be modelled in PSS E Software.

The 60Hz System shall be connected to 50Hz System through an asynchronous link. The project is expected to evolve in phases. The study scenarios to be considered can be found in Table-1.

Scenario	Year	PV/Wind Availability	Power Import Through FPCL 60 Hz system (MW)	PV Generation (MW)	Wind Generation (MW)	Power Import Through 50Hz system (MW)	Remarks
1	March 2026	Max. Avl	0	2.5	N/A	N/A	Demand met through PV
2	March 2026	Non-Avl	2.5	0	N/A	N/A	Demand met through FPCL 60 Hz system
3	March 2027	Max. Avl	3.5	5.5	1.5	N/A	Demand met through PV+7.5 MW WTG+ FPCL 60 Hz system
4	March 2027	Non-Avl	8.5	0	0	N/A	2 MW deficit against required power of 10.5 MW as per power plan. This deficit to be overcome through FPCL 50 Hz system subject to its availability by March 2027 or through some other source or shedding/restricting non-critical load
5	March 2028	Max. Avl	8.5	7	3	0	Demand met through PV+ FPCL 60 Hz system+02 WTG's(7.5 MW each)
6	March 2028	Non-Avl	8.5	0	0	10	Demand met through FPCL 60 Hz system+ FPCL 50 Hz system through 02 feeders or through some other source

Table 1: Study Scenarios

In above table, for power import from FPCL 60 Hz system, following three sub-scenarios w.r.t STGs and GTGs are considered:

Normal case of 03 sources i.e. Steam Turbines (2x30 MVA + 1x12.5 MVA STGs)

Normal case of 04 Sources i.e. 03 STGs & 1x 36 MVA Gas turbine (GTG)

Worse case with 05 Sources i.e. 03x STGs+ 02 GTGs

The assessment for all the scenarios shall be done considering the analysis as discussed in the sections below.

Load Flow Analysis

For each scenario as per Table-1 along with three sub scenarios of power import from FPCL 60 Hz system, **Load Flow Analysis** should be conducted to ensure power balance, acceptable voltage levels, and Power Factor compliance at FRTZ.

Following two options of 11kV interconnection feeders are considered

- Option-I – 1/C 500mm² AL Cable
- Option-II – 1/C 630mm² Cu Cable

Load Flow analysis shall be performed considering both options to identify which cable option will be best under normal and N-1 contingency conditions.

Reactive Power Compensation Study

FRTZ site is required to maintain a Power Factor of 0.9 at the point of interconnection. Reactive Power Compensation assessment shall be performed considering grid voltages of :

- 95%
- 100%
- 105%

To identify the additional reactive power compensation needed to maintain the desired Power Factor.

Short Circuit Analysis

For each scenario as per Table-1 along with three sub scenarios of power import from FPCL 60 Hz system, 3-phase and 1-phase fault simulations at FRTZ 11 kV bus shall be performed to evaluate required breaker duty as well if enough Short Circuit level is available to achieve reasonable performance from Back-to-back Frequency Converter and Renewable Power Plants.

3-phase and 1-phase fault simulations were also performed at 13.8 kV FPCL and FFBI bus at 60 Hz to see the impact (if any) after interconnection to FRTZ.

Transient Stability Analysis

Evaluation of Transient Stability requires dynamic modelling of main assets like Generating units, Back-to-back Frequency Converters, PV and Wind Power Plants. In the absence of actual tuned models, the real response of the system cannot be predicted. It is worthwhile to mention here that no dynamic tuned models have been provided. Assuming generic models with typical values for dynamic testing depicts no constraint.

Study Assumptions

- Power Factor for load demand at various sites is assumed as 0.9
- Frequency conversion and voltage matching via Back-to-back converters assumed ideal. Since the available details of Frequency converter were limited, it has been modelled as VSC based Back-to-back HVDC.
- Solar and wind capacities deployed as per Table-1
- Reactive Power Capability of PV and Wind Plants is assumed to be 0.95 of P_g in both Leading/Lagging

System Modelling in PSSE

Generator Modelling

60 Hz system

There are five conventional generators available in the 60Hz System. The details of these generations are given in Table-2.

Generator	Connection Site	Max. Generation Limit	Reactive Power Capability
GT1	FFBL	26.3MW	$\pm 15.95\text{MVAR}$
GT2	FFBL	26.3MW	$\pm 15.95\text{MVAR}$
STG (CEU 1011)	FPCL	24MW	-9.36/+18MVAR
STG (CEU 2011)	FPCL	24MW	-9.36/+18MVAR
STG (CEU 3011)	FPCL	10MW	-4.35/+7.65MVAR

Table 2: Overview of Generating Units in 60Hz System

50 Hz system

There is a single generator available in the 50Hz System. The details are given in Table-3.

Generator	Connection Site	Max. Generation Limit	Reactive Power Capability
G	FPCL	60MW	± 44.99MVAR

Table 3: Overview of Generating Units in 50Hz System

Back-to-Back Frequency Converter Modelling

The only document related to Frequency converter attached in Annexure-B revealed the following insights:

- Frequency converter appears to be Industrial Static Converter.
- It has a capacity of 10MVA and is composed of 4x2.5MVA units

The presence of multiple 2.5 MVA "Inverters" suggests a modular voltage source inverter configuration. Industrial frequency converters for applications like 50/60 Hz transformation, variable-speed drives, or isolated grid supplies almost always use VSC due to:

- Bidirectional power control
- Independent active/reactive power control
- Ability to operate in weak or no-grid conditions

Based on consultant assessment, it is decided to model Frequency Converter as Back-to-Back VSC Based HVDC. VSC based devices are usually equipped with Reactive Power Compensation therefore reactive compensation of ±5MVAR is assumed for the VSC based connection. Parameters assumed for VSC Based HVDC model are shown in Figure-12.

VSC DC Line Data Record

Power Flow

Line Data		Owner Data	
Line Name		Owner	Fraction
FEEDER1		1	Select ... 1.000
Control Mode		0	Select ... 1.000
In-service	Blocked by Solution	0	Select ... 1.000
Rdc (ohms)		0	Select ... 1.000
0.001		0	Select ... 1.000

Converter 1 Data

Bus Number	Bus Name
2003	MVSG-1 BUSC 13.800

DC Control Type	AC Control Mode	AC Current Rating (A)	PWR Weighting Frac	RMPCT(%)
MW	Voltage	1250.0	1.000	100.0

DC Setpoint (MW)	AC Setpoint (pu)	MVA Rating	Max Q (Mvar)	Remote Bus Number
-2.5	1.0000	10.0	5.0	2003

A Loss (kW)	B Loss (kW/A)	Min Conv. Loss (kW)	Min Q (Mvar)
0.0	0.00	0.0	-5.0

Converter 2 Data

Bus Number	Bus Name
138001	FRQ-CVTR-A 13.800

DC Control Type	AC Control Mode	AC Current Rating (A)	PWR Weighting Frac	RMPCT(%)
kV	Voltage	1250.0	1.000	100.0

DC Setpoint (kV)	AC Setpoint (pu)	MVA Rating	Max Q (Mvar)	Remote Bus Number
13.8	1.0000	10.0	5.0	138001

A Loss (kW)	B Loss (kW/A)	Min Conv. Loss (kW)	Min Q (Mvar)
0.0	0.00	0.0	-5.0

OK Cancel

Figure 12: Parameters considered for VSC based HVDC model

Transformer Modelling

Frequency converter performs conversion operation at 13.8kV whereas FRTZ site operates at 11kV. Therefore, 13.8/11kV Transformation is required. Parameters considered for Transformer Model are shown in Figure-13.

VSC DC Line Data Record

Power Flow

Line Data

Line Name
FEEDER1

Control Mode
In-service

☐ Blocked by Solution

Rdc (ohms)
0.001

Owner Data

Owner	Fraction
1	1.000
0	1.000
0	1.000
0	1.000

Converter 1 Data

Bus Number 2003	Bus Name MVSG-1 BUSC 13.800
DC Control Type MW	AC Control Mode Voltage
DC Setpoint (MW) -2.5	AC Setpoint (pu) 1.0000
A Loss (kW) 0.0	B Loss (kW/A) 0.00
	AC Current Rating (A) 1250.0
	MVA Rating 10.0
	Min Conv. Loss (kW) 0.0
	PWR Weighting Frac 1.000
	Max Q (Mvar) 5.0
	Min Q (Mvar) -5.0
	RMPCT(%) 100.0
	Remote Bus Number 2003

Converter 2 Data

Bus Number 138001	Bus Name FRQ-CVTR-A 13.800
DC Control Type kV	AC Control Mode Voltage
DC Setpoint (kV) 13.8	AC Setpoint (pu) 1.0000
A Loss (kW) 0.0	B Loss (kW/A) 0.00
	AC Current Rating (A) 1250.0
	MVA Rating 10.0
	Min Conv. Loss (kW) 0.0
	PWR Weighting Frac 1.000
	Max Q (Mvar) 5.0
	Min Q (Mvar) -5.0
	RMPCT(%) 100.0
	Remote Bus Number 138001

OK

Cancel

Figure 12: Parameters considered for VSC based HVDC model

Transformer Modelling

Frequency converter performs conversion operation at 13.8kV whereas FRTZ site operates at 11kV. Therefore, 13.8/11kV Transformation is required. Parameters considered for Transformer Model are shown in Figure-13.

Two Winding Transformer Data Record

Power Flow
Short Circuit

Line Data

From Bus Number
11991

To Bus Number
138001

Branch ID
F1

From Bus Name
FOST-JP-F1 11.000

To Bus Name
FRQ-CVTR-A 13.800

Transformer Name

Vector Group

☒ In Service
☐ Metered on From end
☐ Winding 1 on From end

I/O Data

Winding I/O Code
1 - Turns ratio (pu on bus base kV)

Impedance I/O Code
2 - Z pu (winding kV winding MVA)

Admittance I/O Code
1 - Y pu (system base)

Transformer Impedance Data

Specified R (pu)
0.000000

Specified X (pu)
0.055000

Magnetizing G (pu)
0.000000

Magnetizing B (pu)
0.000000

Impedance Table
0

R table corrected (pu)
0.000000

X table corrected (pu)
0.055000

Transformer Nominal Ratings Data

Winding 1 Ratio (pu)
1.0000

Winding 2 Ratio (pu)
1.0000

Winding (1-2) Angle (degrees)
0.00

Winding 1 Nominal kV
13.8000

Winding 2 Nominal kV
11.0000

Winding MVA
10.0000

Ratings (MVA)

RATE1
10.0

RATE2
8.0

RATE3
0.0

RATE4
0.0

Control Data

Controlled Bus Number
0

Controlled Bus Name

Control Mode
0- None

☐ Controlled Bus On Winding Side
☒ Auto Adjust

Tap Positions
33

Winding Connect Angle
0.000000

R1max (pu)
1.100000

R1min (pu)
0.900000

Vmax (pu)
1.100000

Vmin (pu)
0.900000

Load Drop Comp

Load Drop Comp R (pu)
0.000000

Load Drop Comp X (pu)
0.000000

Owner Data

Owner
1
0
0
0

Select ...
Select ...
Select ...
Select ...

Fraction
1.000
1.000
1.000
1.000

OK
Cancel

Figure 13: Parameters considered for 13.8/11kV, 8/10MVA Transformer

Cable Modelling

Frequency converter will be connected at FPCL site followed by two 3.5km long cables. Similarly, in future FRTZ site will be connected through two 11kV, 3.5km long cables from FPCL 50 Hz system. As mentioned in the report, two options for cable size will be evaluated.

The cable parameters considered for the study are shown in Figure 14 & Figure 15. Please note that all the parameter values are in per km.

Calculated Impedance							
Layout		Flat					
	R	X	L	Z	XR	C	Y
➡ Pos.	<u>0.0787</u>	<u>0.19923</u>	<u>0.0006342</u>	<u>0.21421</u>	<u>2.532</u>	<u>0.44301</u>	<u>139.177</u>
➡ Zero	<u>0.22874</u>	<u>1.75734</u>	<u>0.0055938</u>	<u>1.77191</u>	<u>7.75</u>	<u>0.44301</u>	<u>139.177</u>
Cable Temperature							
Base	<div>90 ▾</div>	°C	Min.	<u>75</u>	°C	Max.	<u>90</u> °C

Figure 14: Parameters considered for 11kV Cable (Option-I: 1/C 500mm² (578.6 Amps) – Al)

Calculated Impedance							
Layout		Flat					
	R	X	L	Z	XR	C	Y
➡ Pos.	<u>0.03845</u>	<u>0.18954</u>	<u>0.0006033</u>	<u>0.19341</u>	<u>4.93</u>	<u>0.51104</u>	<u>160.549</u>
➡ Zero	<u>0.18849</u>	<u>1.74786</u>	<u>0.005583</u>	<u>1.75758</u>	<u>9.371</u>	<u>0.51104</u>	<u>160.549</u>
Cable Temperature							
Base	<u>90</u>	°C	Min.	<u>75</u>	°C	Max.	<u>90</u> °C

Figure 15: Parameters considered for 11kV Cable (Option-I: 1/C 630mm² (813.4 Amps) – Cu)

Aggregated PV Plant Model

The PV plant is developed as aggregated PV plant as per WECC recommendations for PV Plant modelling. Aggregated PV Plant along with model parameters for PV inverter and Inverter Transformer are shown in Figure 16 to Figure 18. The model is prepared based on the data provided by FoST attached in Annexure-A. Where missing generic data has been assumed.

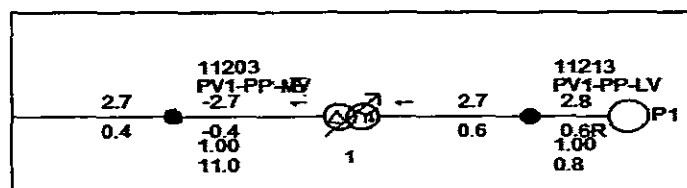


Figure 16: Aggregated PV Model Based on WECC Recommendation

Two Winding Transformer Data Record

Power Flow
Short Circuit

Line Data

From Bus Number
11203

From Bus Name
PV1-PP-MV 11.000

☒ In Service

To Bus Number
11213

To Bus Name
PV1-PP-LV 0.8000

☒ Metered on From end

Branch ID
1

Transformer Name

☒ Winding 1 on From end

Vector Group

I/O Data

Winding I/O Code
1 - Turns ratio (pu on bus base kV)

Impedance I/O Code
2 - Z pu (winding kV winding MVA)

Admittance I/O Code
1 - Y pu (system base)

Transformer Impedance Data

Specified R (pu)
0.000000

Specified X (pu)
0.100000

Magnetizing G (pu)
0.000000

Magnetizing B (pu)
0.000000

Impedance Table
0

R table corrected (pu)
0.000000

X table corrected (pu)
0.100000

Transformer Nominal Ratings Data

Winding 1 Ratio (pu)
1.0100

Winding 1 Nominal kV
11.0000

Winding 2 Ratio (pu)
1.0000

Winding 2 Nominal kV
0.8000

Winding (1-2) Angle (degrees)
0.00

Winding MVA
6.0000

RATE1
6.0

RATE2
6.0

RATE3
0.0

RATE4
0.0

Control Data

Controlled Bus Number
0

Controlled Bus Name

Control Mode
0- None

☐ Controlled Bus On Winding Side

☒ Auto Adjust

Tap Positions
33

Wnd Connect Angle
0.00000

R1max (pu)
1.10000

R1min (pu)
0.90000

Vmax (pu)
1.10000

Vmin (pu)
0.90000

Load Drop Comp
Load Drop Comp R (pu)
0.00000

Load Drop Comp X (pu)
0.00000

Owner Data

Owner
1

Select ...

Fraction
1.000

Owner
0

Select ...

Fraction
1.000

Owner
0

Select ...

Fraction
1.000

Owner
0

Select ...

Fraction
1.000

OK

Cancel

Figure 17: Parameters considered for PV Inverter Transformer

Machine Data Record

Power Flow
Short Circuit
NCSFC

Basic Data

Bus Number11213

Bus NamePV1-PP-LV 0.8000

Machine IDP1

☒ In Service

Bus Type Code2

Machine Data

Pgen (MW)2.7500

Pmax (MW)5.0000

Pmin (MW)0.0000

Qgen (Mvar)0.5651

Qmax (Mvar)0.9039

Qmin (Mvar)-0.9039

Mbase (MVA)5.26

R Source (pu)0.000000

X Source (pu)9999.000000

Transformer Data

R Tran (pu)0.00000

X Tran (pu)0.00000

Gentap (pu)1.00000

Owner Data

Owner

Fraction

1

Select ...

1.000

0

Select ...

1.000

0

Select ...

1.000

0

Select ...

1.000

Wind Data

Control Mode

2 - +, - Q limits based on WPF

Power Factor (WPF)

0.950

Plant Data

Sched Voltage

1.0000

Remote Bus

11213

OK

Cancel

Figure 18: Parameters considered for PV Inverter

Wind Turbine Model

The Wind Turbine WTG model is prepared based on the data provided by FoST and attached in Annexure-A Where missing, data has been assumed. Parameters considered for WTG and its Step Up Transformer are shown in Figure 19 & Figure 20.

Machine Data Record

Power Flow Short Circuit NCSFC

Basic Data

Bus Number	11113	Bus Name	WIND-PP-LV 1.1400
Machine ID	W <input checked="" type="checkbox"/> In Service	Bus Type Code	2

Machine Data

Pgen (MW)	Pmax (MW)	Pmin (MW)
1.5000	7.5000	0.0000
Qgen (Mvar)	Qmax (Mvar)	Qmin (Mvar)
0.3650	0.4930	-0.4930
Mbase (MVA)	R Source (pu)	X Source (pu)
7.89	0.000000	9999.000000

Transformer Data

R Tran (pu)
0.00000
X Tran (pu)
0.00000
Gentap (pu)
1.00000

Owner Data

Owner	Fraction
1 <input type="button" value="Select ..."/>	1.000
0 <input type="button" value="Select ..."/>	1.000
0 <input type="button" value="Select ..."/>	1.000
0 <input type="button" value="Select ..."/>	1.000

Wind Data

Control Mode
2 - +, -Q limits based on WPF <input type="button" value="v"/>
Power Factor (WPF)
0.950

Plant Data

Sched Voltage	Remote Bus
1.0000	11113

OK Cancel

Figure 19: Parameters considered for 7.5MW WTG

Two Winding Transformer Data Record

Power Flow Short Circuit

Line Data

From Bus Number 11103 From Bus Name WIND-PP-MV 11.000 ☒ In Service

To Bus Number 11113 To Bus Name WIND-PP-LV 1.1400 ☐ Metered on From end

Branch ID 1 Transformer Name ☒ Winding 1 on From end

Vector Group

I/O Data

Winding I/O Code Impedance I/O Code Admittance I/O Code

1 - Turns ratio (pu on bus base kV) 2 - Z pu (winding kV winding MVA) 2 - No load loss & exc. I

Transformer Impedance Data

Specified R (pu) Specified X (pu)

0.000000 0.090000

No load loss (W) Exciting I (pu)

5919.99951 0.00074

Impedance Table

0

R table corrected (pu) X table corrected (pu)

0.00000 0.09000

Transformer Nominal Ratings Data

Winding 1 Ratio Winding 1 Nominal kV Ratings (MVA)

1.0050 11.0000 RATE1 8.0

Winding 2 Ratio Winding 2 Nominal kV RATE2 8.0

1.0000 1.1400 RATE3 0.0

Winding (1-2) Angle (degrees) Winding MVA RATE4 0.0

0.00 8.0000

Control Data

Controlled Bus Number Controlled Bus Name Control Mode

0 0-None

☐ Controlled Bus On Winding Side ☒ Auto Adjust

Tap Positions Wnd Connect Angle Load Drop Comp

33 0.00000 Load Drop Comp R (pu)

R1max (pu) R1min (pu) 0.00000

1.10000 0.90000 Load Drop Comp X (pu)

Vmax (pu) Vmin (pu) 0.00000

1.10000 0.90000

OK Cancel

Figure 20: Parameters considered for 7.5MW WTG Step-up Transformer

Study Results

This section discusses the results of various scenarios studied for FRTZ Site assessment.

Load Flow Analysis for Cable Option-I

The percentage loading on all the studied scenarios under normal system condition is tabulated in Table-4 to 6. The maximum loading observed under worst case scenario for ultimate load demand is 40%. This loading is well within the permissible limit.

Scenarios as per Table-1	Percentage Loading		
	11kV Feeders through 60 Hz system	11kV Feeders through 50 Hz system	13.8/11kV, 10MVA Transformer
Scenario-1	0%	N/A	0%
Scenario-2	12%	N/A	13%
Scenario-3	17%	0%	18%
Scenario-4	39%	10%	43%
Scenario-5	39%	0%	43%
Scenario-6	40%	49%	44%

Table 4: Percentage Loading on FRTZ Site Interconnection for Option-I under Normal Condition for Normal Case of 3 Sources

Scenarios as per Table-1	Percentage Loading		
	11kV Feeders through 60 Hz system	11kV Feeders through 50 Hz system	13.8/11kV, 10MVA Transformer
Scenario-1	0%	N/A	0%
Scenario-2	12%	N/A	13%
Scenario-3	17%	0%	18%
Scenario-4	39%	10%	43%
Scenario-5	39%	0%	43%
Scenario-6	40%	49%	44%

Table 5: Percentage Loading on FRTZ Site Interconnection for Option-I under Normal Condition for Normal Case of 4 Sources

Scenarios as per Table-1	Percentage Loading		
	11kV Feeders through 60 Hz system	11kV Feeders through 50 Hz system	13.8/11kV, 10MVA Transformer
Scenario-1	0%	N/A	0%
Scenario-2	12%	N/A	13%
Scenario-3	17%	0%	18%
Scenario-4	39%	10%	43%
Scenario-5	39%	0%	43%
Scenario-6	40%	49%	44%

Table 6: Percentage Loading on FRTZ Site Interconnection for Option-I under Normal Condition for Normal Case of 5 Sources

Percentage loading under Normal Operating conditions for above scenarios is shown in Figure-21 to 23.

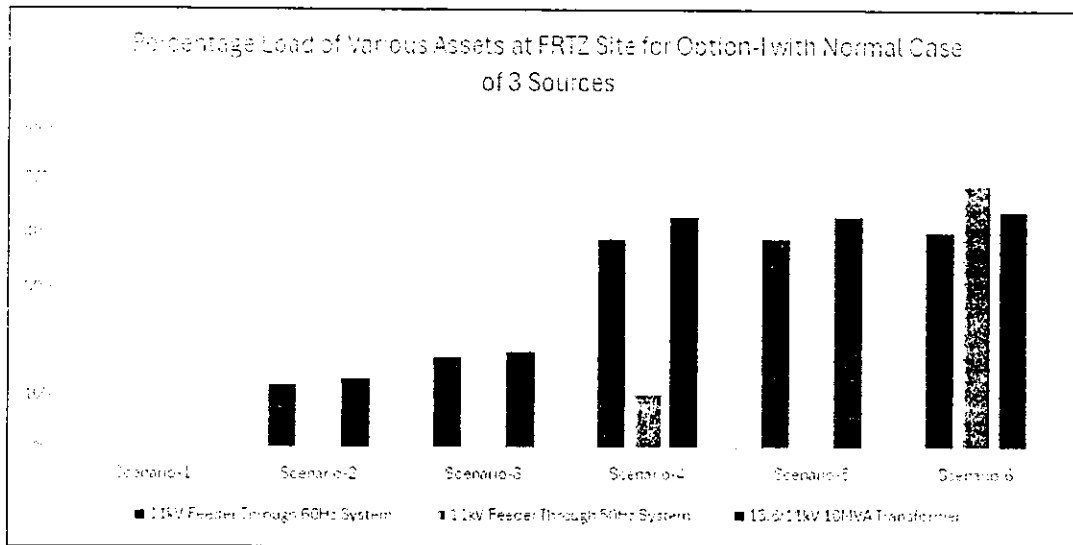


Figure 21: Percentage Loading of FRTZ Assets for Option-I for Normal Case of 3 Sources

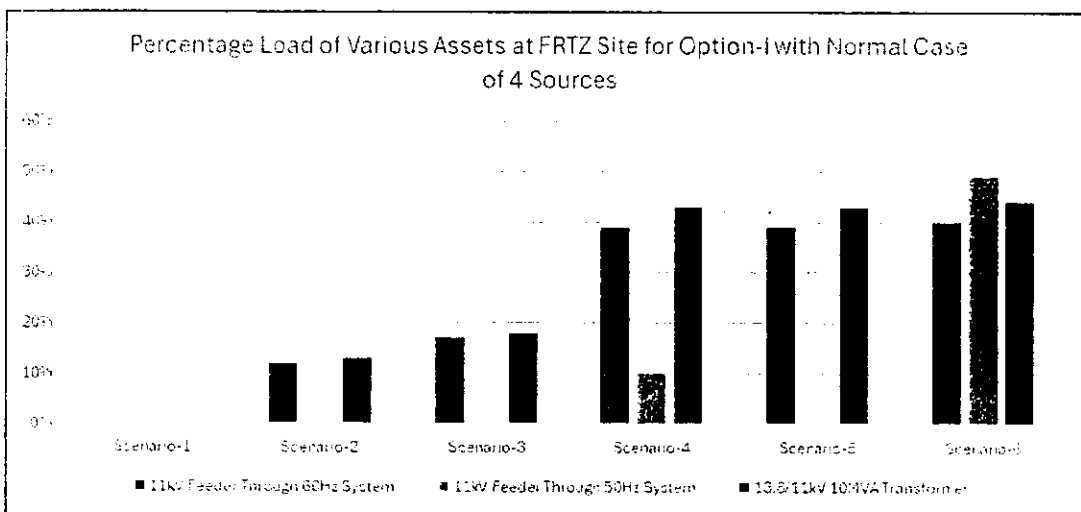


Figure 22: Percentage Loading of FRTZ Assets for Option-I for Normal Case of 4 Sources

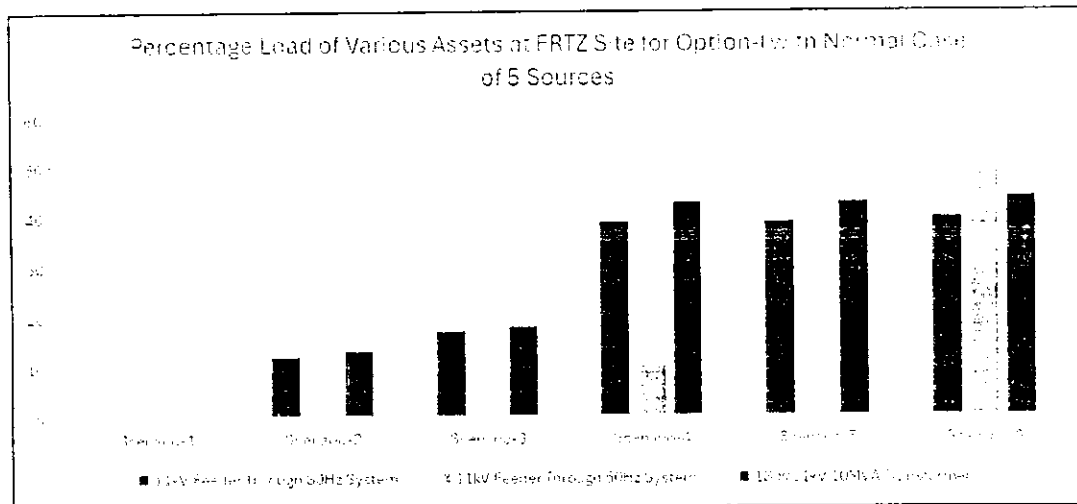


Figure 23: Percentage Loading of FRTZ Assets for Option-I for Normal Case of 5 Sources

Load Flow under N-1 conditions is also evaluated. The results are tabulated in Table-7 to 9. With one feeder out of service condition maximum loading observed for under worst-case conditions in scenario 6 is 78%. This loading is well within the permissible limit of feeder cable rating.

Scenarios as per Table-1	Out of Service Feeder	Percentage Loading		
		11kV Feeders through 60 Hz system	11kV Feeders through 50 Hz system	13.8/11kV 10MVA Transformer
Scenario-1	11kV Feeder via 60 Hz system	0%	N/A	0%
Scenario-2	11kV Feeder via 60 Hz system	25%	N/A	32%
Scenario-3	11kV Feeder via 60 Hz system	32%	0%	35%
	11kV Feeder via 50 Hz system	17%	17%	18%
Scenario-4	11kV Feeder via 60 Hz system	77%	27%	85%
	11kV Feeder via 50 Hz system	40%	33%	45%
Scenario-5	11kV Feeder via 60 Hz system	75%	30%	83%
	11kV Feeder via 50 Hz system	41%	37%	45%
Scenario-6	11kV Feeder via 60 Hz system	60%	78%	87%
	11kV Feeder via 50 Hz system	48%	100%	53%

Table 7: Percentage Loading on FRTZ Site Interconnection for Option-I under N-1 Condition for Normal Case of 3 Sources

Scenarios as per Table-1	Out of Service Feeder	Percentage Loading		
		11kV Feeders through 60 Hz system	11kV Feeders through 50 Hz system	13.8/11kV 10MVA Transformer
Scenario-1	11kV Feeder via 60 Hz system	0%	N/A	0%
Scenario-2	11kV Feeder via 60 Hz system	25%	N/A	32%
Scenario-3	11kV Feeder via 60 Hz system	32%	0%	35%
	11kV Feeder via 50 Hz system	17%	17%	18%
Scenario-4	11kV Feeder via 60 Hz system	77%	27%	85%
	11kV Feeder via 50 Hz system	40%	33%	45%
Scenario-5	11kV Feeder via 60 Hz system	75%	30%	83%
	11kV Feeder via 50 Hz system	41%	37%	45%
Scenario-6	11kV Feeder via 60 Hz system	60%	78%	87%
	11kV Feeder via 50 Hz system	48%	100%	53%

Table 8: Percentage Loading on PRTZ Site Interconnection for Option-I under N-1 Condition for Normal Case of 4 Sources

Scenarios as per Table-1	Out of Service Feeder	Percentage Loading		
		11kV Feeders through 60 Hz system	11kV Feeders through 50 Hz system	13.8/11kV 10MVA Transformer
Scenario-1	11kV Feeder via 60 Hz system	0%	N/A	0%
Scenario-2	11kV Feeder via 60 Hz system	25%	N/A	32%
Scenario-3	11kV Feeder via 60 Hz system	32%	0%	35%
	11kV Feeder via 50 Hz system	17%	17%	18%
Scenario-4	11kV Feeder via 60 Hz system	77%	27%	85%
	11kV Feeder via 50 Hz system	40%	33%	45%
Scenario-5	11kV Feeder via 60 Hz system	75%	30%	83%
	11kV Feeder via 50 Hz system	41%	37%	45%
Scenario-6	11kV Feeder via 60 Hz system	60%	78%	87%

	11kV Feeder via 50 Hz system	48%	100%	53%
--	---------------------------------	-----	------	-----

Table 9: Percentage Loading on FRTZ Site Interconnection for Option-I under N-1 Condition for Normal Case of 5 Sources

Load Flow Analysis for Cable Option-II

The percentage loading on all the studied scenarios under normal system condition is tabulated in Table-10 to 12. For option two load flow analysis is performed considering 630mm² copper cable. This cable has higher ampacity compared to 500mm² Aluminum cable considered in Option-I. As expected, loading on all feeders is lower compared to Option-I. If the ultimate demand is expected to increase beyond 18.5MW, there is additional benefit of installing this cable.

Scenarios as per Table-1	Percentage Loading		
	11kV Feeders through 60 Hz system	11kV Feeders through 50 Hz system	13.8/11kV, 10MVA Transformer
Scenario-1	0%	N/A	0%
Scenario-2	8%	N/A	13%
Scenario-3	10%	0%	18%
Scenario-4	26%	6%	43%
Scenario-5	26%	0%	43%
Scenario-6	26%	30%	43%

Table 10: Percentage Loading on FRTZ Site Interconnection for Option-II for Normal Case of 3 Sources

Scenarios as per Table-1	Percentage Loading		
	11kV Feeders through 60 Hz system	11kV Feeders through 50 Hz system	13.8/11kV, 10MVA Transformer
Scenario-1	0%	N/A	0%
Scenario-2	8%	N/A	13%
Scenario-3	10%	0%	18%
Scenario-4	26%	6%	43%
Scenario-5	26%	0%	43%
Scenario-6	26%	30%	43%

Table 11: Percentage Loading on FRTZ Site Interconnection for Option-II for Normal Case of 4 Sources

Scenarios as per Table-1	Percentage Loading		
	11kV Feeders through 60 Hz system	11kV Feeders through 50 Hz system	13.8/11kV, 10MVA Transformer
Scenario-1	0%	N/A	0%
Scenario-2	8%	N/A	13%
Scenario-3	10%	0%	18%
Scenario-4	26%	6%	43%
Scenario-5	26%	0%	43%
Scenario-6	26%	30%	43%

Table 12: Percentage Loading on FRTZ Site Interconnection for Option-II for Normal Case of 5 Sources

Percentage loading under Normal Operating conditions for above scenarios is shown in Figure-24 to 26.

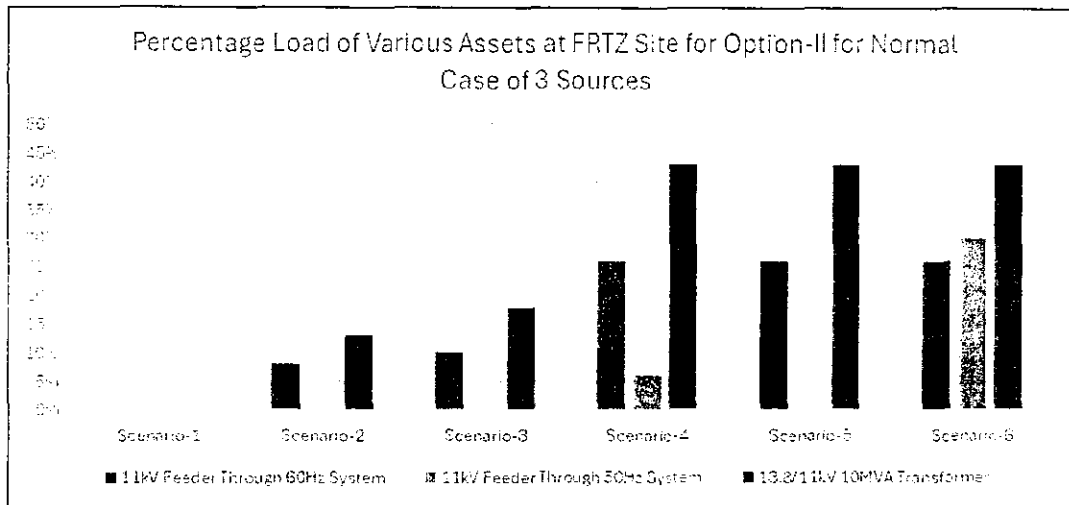


Figure 24: Percentage Loading of FRTZ Assets for Option-II for Normal Case of 3 Sources

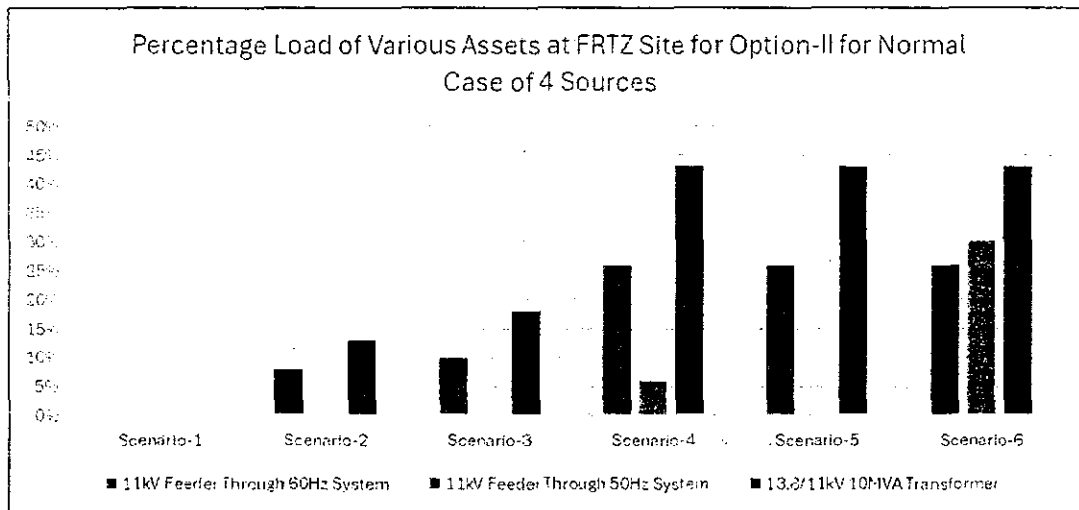


Figure 25: Percentage Loading of FRTZ Assets for Option-II for Normal Case of 4 Sources

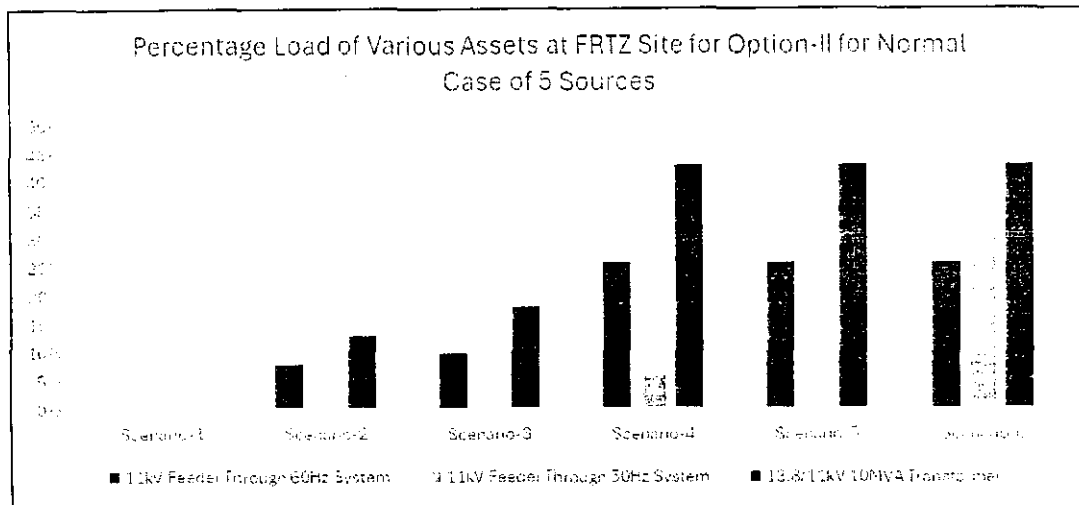


Figure 26: Percentage Loading of FRTZ Assets for Option-II for Normal Case of 5 Sources

Load Flow under N-1 conditions is also evaluated. The results are tabulated in Table-13 to 15.

Scenarios as per Table-1	Out of Service Feeder	Percentage Loading		
		11kV Frequency Converter Feeder	11kV K-Electric Feeder	13.8/11kV 10MVA Transformer
Scenario-1	11kV Feeder via 60 Hz system	0%	N/A	0%
Scenario-2	11kV Feeder via 60 Hz system	15%	N/A	25%
Scenario-3	11kV Feeder via 60 Hz system	21%	0%	35%
	11kV Feeder via 50 Hz system	11%	10%	19%
Scenario-4	11kV Feeder via 60 Hz system	51%	15%	85%
	11kV Feeder via 50 Hz system	26%	21%	45%
Scenario-5	11kV Feeder via 60 Hz system	51%	17%	85%
	11kV Feeder via 50 Hz system	27%	22%	45%

Scenario-6	11kV Feeder via 60 Hz system	51%	38%	87%
	11kV Feeder via 50 Hz system	29%	66%	50%

Table 13: Percentage Loading on FRTZ Site Interconnection for Option-II under N-1 Condition for Normal Case of 3 Sources

Scenarios as per Table-1	Out of Service Feeder	Percentage Loading		
		11kV Frequency Converter Feeder	11kV K- Electric Feeder	13.8/11kV 10MVA Transformer
Scenario-1	11kV Feeder via 60 Hz system	0%	N/A	0%
Scenario-2	11kV Feeder via 60 Hz system	15%	N/A	25%
Scenario-3	11kV Feeder via 60 Hz system	21%	0%	35%
	11kV Feeder via 50 Hz system	11%	10%	19%
Scenario-4	11kV Feeder via 60 Hz system	51%	15%	85%
	11kV Feeder via 50 Hz system	26%	21%	45%
Scenario-5	11kV Feeder via 60 Hz system	51%	17%	85%
	11kV Feeder via 50 Hz system	27%	22%	45%
Scenario-6	11kV Feeder via 60 Hz system	51%	38%	87%
	11kV Feeder via 50 Hz system	29%	66%	50%

Table 14: Percentage Loading on FRTZ Site Interconnection for Option-II under N-1 Condition for Normal Case of 4 Sources

Scenarios as per Table-1	Out of Service Feeder	Percentage Loading		
		11kV Frequency Converter Feeder	11kV K-Electric Feeder	13.8/11kV 10MVA Transformer
Scenario-1	11kV Feeder via 60 Hz system	0%	N/A	0%
Scenario-2	11kV Feeder via 60 Hz system	15%	N/A	25%
Scenario-3	11kV Feeder via 60 Hz system	21%	0%	35%
	11kV Feeder via 50 Hz system	11%	10%	19%
Scenario-4	11kV Feeder via 60 Hz system	51%	15%	85%
	11kV Feeder via 50 Hz system	26%	21%	45%
Scenario-5	11kV Feeder via 60 Hz system	51%	17%	85%
	11kV Feeder via 50 Hz system	27%	22%	45%
Scenario-6	11kV Feeder via 60 Hz system	51%	38%	87%
	11kV Feeder via 50 Hz system	29%	66%	50%

Table 15: Percentage Loading on FRTZ Site Interconnection for Option-II under N-1 Condition for Normal Case of 5 Sources

Reactive Power Compensation Study

FRTZ site is required to maintain a Power Factor of 0.9 at the Point of Interconnection (POI). Reactive Power Compensation assessment is conducted considering the following conditions:

- FRTZ Bus Voltage at 95%
- FRTZ Bus Voltage at 100%
- FRTZ Bus Voltage at 105%

Table-16 to 18 tabulates the additional reactive power requirement for maintaining 0.9 Power Factor at FRTZ Bus. Please note that $\pm 5\text{MVAR}$ (Total $\pm 10\text{MVAR}$) Reactive Power Compensation is already assumed for each Frequency Converter.

Scenario	FRTZ Site Demand		Additional Reactive Power Requirement (MVAR)		
	MW	MVAR	V@95%	V@100%	V@105%
1	2.5	1.21	-11	1	15

2	2.5	1.21	-7	2	11
3	10.5	5.09	-3	6	15
4	10.5	5.09	-1	8	17
5	18.5	8.96	3	11	20
6	18.5	8.96	3	11	20

Table 16: Additional Reactive Power Compensation Requirement for FRTZ Bus for Normal Case with 3 Sources

Scenario	FRTZ Site Demand		Additional Reactive Power Requirement (MVAR)		
	MW	MVAR	V@95%	V@100%	V@105%
1	2.5	1.21	-11	1	15
2	2.5	1.21	-7	2	11
3	10.5	5.09	-3	6	15
4	10.5	5.09	-1	8	17
5	18.5	8.96	3	11	20
6	18.5	8.96	3	11	20

Table 17: Additional Reactive Power Compensation Requirement for FRTZ Bus for Normal Case with 4 Sources

Scenario	FRTZ Site Demand		Additional Reactive Power Requirement (MVAR)		
	MW	MVAR	V@95%	V@100%	V@105%
1	2.5	1.21	-11	1	15
2	2.5	1.21	-7	2	11
3	10.5	5.09	-3	6	15
4	10.5	5.09	-1	8	17
5	18.5	8.96	3	11	20
6	18.5	8.96	3	11	20

Table 18: Additional Reactive Power Compensation Requirement for FRTZ Bus for Normal Case with 5 Sources

Analysis reveals that reactive power compensation of 20MVAR shall be planned to meet demand of 18.5MW with 0.9 Power Factor at POI.

Short Circuit Analysis

For each scenario as per Table-1 along with three sub scenarios of power import from FPCL 60 Hz system, 3-phase and 1-phase fault simulations at FRTZ 11 kV bus shall be performed to evaluate required breaker duty as well if enough Short Circuit level is available to achieve

reasonable performance from Back-to-back Frequency Converter and Renewable Power Plants.

3-phase and 1-phase fault simulations were also performed at 13.8 kV FPCL and FFBL bus at 60 Hz to see the impact (if any) after interconnection to FRTZ

Three Phase Short Circuit has been conducted using IEC 60909 standard. The assumptions made for calculating Short circuit current are as follows:

- Maximum fault current calculations, impedance correction factors calculated and applied
- VOLTAGE FACTOR C=1.05 WHEN BUS BASE kv<=1.0 kv and C=1.1 WHEN BUS BASE kv>1.0 kv
- Set synchronous/asynchronous machine power outputs to p=0.0, q=0.0
- Set generator positive sequence reactances to sub transient
- Set induction machine positive sequence reactances to sub transient
- Transformer tap ratios and phase shift angles unchanged
- Set line charging=0.0 in +/- sequences
- Set line/fixed/switched shunts=0.0 and transformer magnetizing admittance=0.0 in +/- sequences
- Load represented in +/-0 sequences
- Dc lines and facts devices blocked
- Impedance corrections not applied to transformer zero sequence impedances

The results of fault currents and MVA Short Circuit levels (both Three Phase & Line to Ground) for 13.8kV FFBL Bus, 13.8kV FPCL Bus & 11kV FRTZ Bus are tabulated in Table-19 to 21 respectively. These results are considering the Normal case of 3 Sources (3 STG).

Scenario	FFBL (13.8 kV)			
	Single phase		Three phase	
	MVASC (MVA)	I''k (kA)	MVASC (MVA)	I''k (kA)
Scenario 1	460	19.275	452	18.937
Scenario 2	460	19.275	452	18.933
Scenario 3	460	19.275	452	18.933
Scenario 4	460	19.275	452	18.933
Scenario 5	460	19.275	452	18.933
Scenario 6	460	19.752	452	18.933

Table 19: Short Circuit Levels for 13.8kV FFBL Bus based on IEC 60909 Method of Calculation for Normal Case of 3 Sources

Scenario	FPCL (13.8 kV)			
	Single phase		Three phase	
	MVASC (MVA)	I''k (kA)	MVASC (MVA)	I''k (kA)
Scenario 1	545	22.811	470	19.698
Scenario 2	545	22.811	470	19.698
Scenario 3	545	22.811	470	19.698
Scenario 4	545	22.811	470	19.698
Scenario 5	545	22.811	470	19.698
Scenario 6	545	22.811	470	19.698

Table 20: Short Circuit Levels for 13.8kV FPCL Bus based on IEC 60909 Method of Calculation for Normal Case of 3 Sources

Scenario	FRTZ (11 kV)			
	Single phase		Three phase	
	MVASC (MVA)	I''k (kA)	MVASC (MVA)	I''k (kA)
Scenario 1	6.91	362	6.86	0.36
Scenario 2	4.63	0.243	3.06	0.16
Scenario 3	44	2.349	109	5.759
Scenario 4	43	2.29	92	4.845
Scenario 5	44	2.356	114	6.027
Scenario 6	26	1.3567	99	5.175

Table 21: Short Circuit Levels for 11kV FRTZ (50Hz System) Bus based on IEC 60909 Method of Calculation for Normal Case of 3 Sources

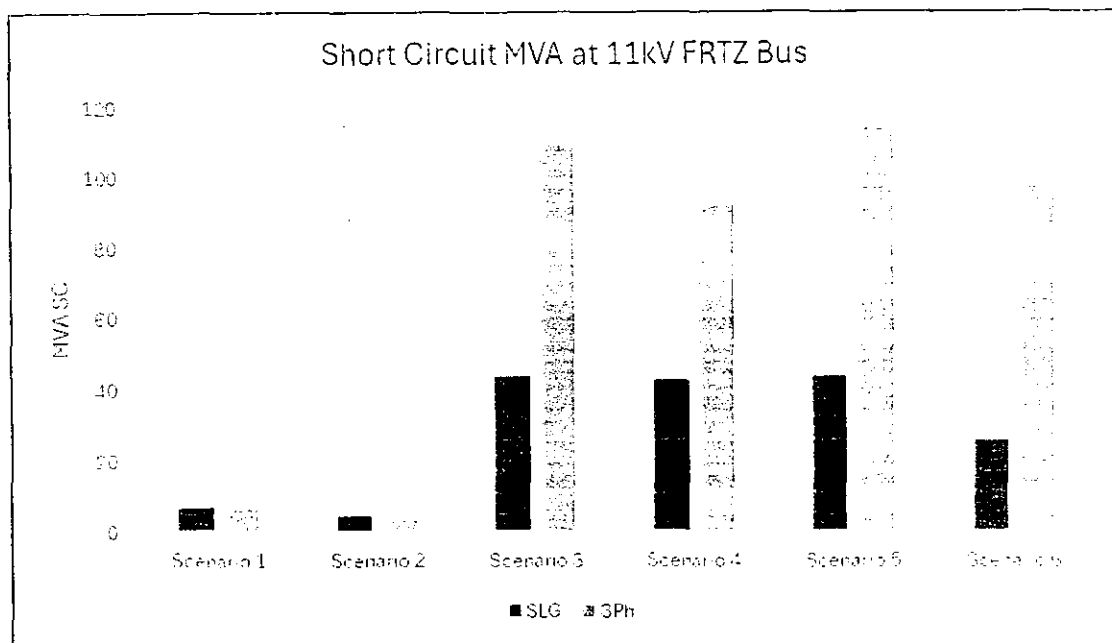


Figure 27: Short Circuit MVA at 11kV FRTZ Bus for Normal Case of 3 Sources

The results of fault currents and MVA Short Circuit levels (both Three Phase & Line to Ground) for 13.8kV FFBL Bus, 13.8kV FPCL Bus & 11kV FRTZ Bus are tabulated in Table-22, to 24 respectively. These results are considering the Normal case of 4 Sources (3 STG + 1GT).

Scenario	FFBL (13.8 kV)			
	Single phase		Three phase	
	MVASC (MVA)	I"k (kA)	MVASC (MVA)	I"k (kA)
Scenario 1	732	30.657	680	28.43
Scenario 2	732	30.657	980	28.43
Scenario 3	732	30.657	980	28.43
Scenario 4	732	30.657	980	28.43
Scenario 5	732	30.657	980	28.43
Scenario 6	732	30.657	980	28.43

Table 22: Short Circuit Levels for 13.8kV FFBL Bus based on IEC 60909 Method of Calculation for Normal Case of 4 Sources

Scenario	FPCL (13.8 kV)			
	Single phase		Three phase	
	MVASC (MVA)	I"k (kA)	MVASC (MVA)	I"k (kA)
Scenario 1	795	33.273	692	28.98
Scenario 2	795	33.273	692	28.98
Scenario 3	795	33.273	692	28.98
Scenario 4	795	33.273	692	28.98

Scenario 5	795	33.273	692	28.98
Scenario 6	795	33.273	692	28.98

Table 23: Short Circuit Levels for 13.8kV FPCL Bus based on IEC 60909 Method of Calculation for Normal Case of 4 Sources

Scenario	FRTZ (11 kV)			
	Single phase		Three phase	
	MVASC (MVA)	I"k (kA)	MVASC (MVA)	I"k (kA)
Scenario 1	6.9	0.362	6.8	0.36
Scenario 2	4.63	0.243	3.06	0.16
Scenario 3	44	2.349	109	5.759
Scenario 4	43	2.29	92	4.845
Scenario 5	44	2.356	114	6.027
Scenario 6	26	1.356	99	5.175

Table 24: Short Circuit Levels for 11kV FRTZ Bus based on IEC 60909 Method of Calculation for Normal Case of 4 Sources

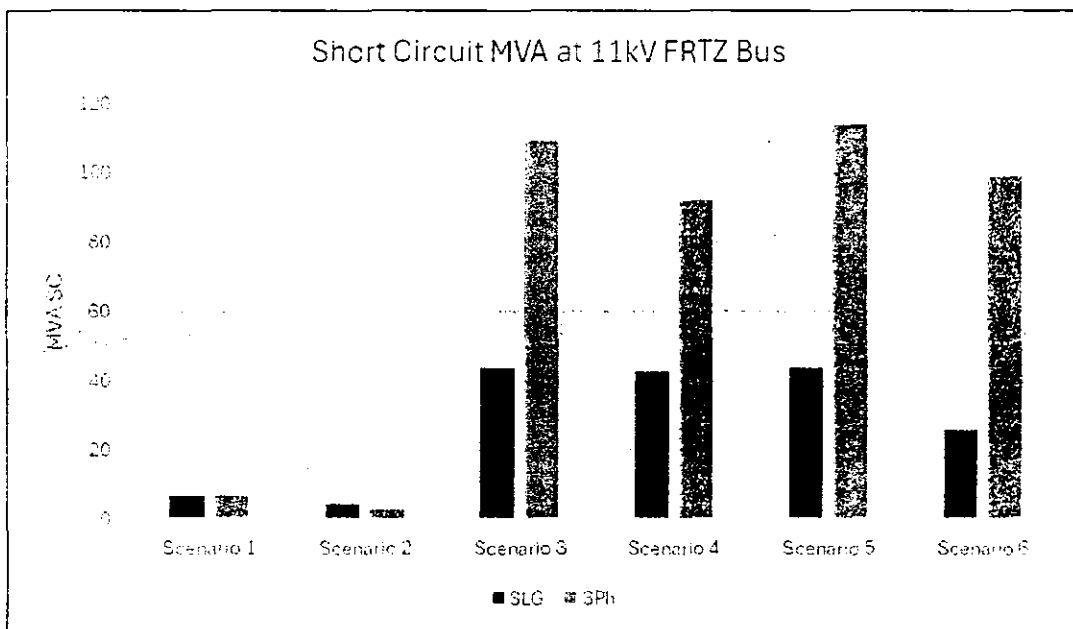


Figure 28: Short Circuit MVA at 11kV FRTZ Bus for Normal Case of 4 Sources

The results of fault currents and MVA Short Circuit levels (both Three Phase & Line to Ground) for 13.8kV FFBL Bus, 13.8kV FPCL Bus & 11kV FRTZ Bus are tabulated in Table-25, to 27 respectively. These results are considering the Normal case of 5 Sources (3 STG + 2GT).

Scenario	FFBL (13.8 kV)			
	Single phase		Three phase	
	MVASC (MVA)	I"k (kA)	MVASC (MVA)	I"k (kA)
Scenario 1	1002	41.934	906	37.931
Scenario 2	1002	41.934	906	37.931
Scenario 3	1002	41.934	906	37.931
Scenario 4	1002	41.934	906	37.931
Scenario 5	1002	41.934	906	37.931
Scenario 6	1002	41.934	906	37.931

Table 25: Short Circuit Levels for 13.8kV FFBL Bus based on IEC 60909 Method of Calculation for Normal Case of 5 Sources

Scenario	FPCL (13.8 kV)			
	Single phase		Three phase	
	MVASC (MVA)	I"k (kA)	MVASC (MVA)	I"k (kA)
Scenario 1	1015	42.474	906	37.899
Scenario 2	1015	42.474	906	37.899
Scenario 3	1015	42.474	906	37.899
Scenario 4	1015	42.474	906	37.899
Scenario 5	1015	42.474	906	37.899
Scenario 6	1015	42.474	906	37.899

Table 26: Short Circuit Levels for 13.8kV FPCL Bus based on IEC 60909 Method of Calculation for Normal Case of 5 Sources

Scenario	FRTZ (11 kV)			
	Single phase		Three phase	
	MVASC (MVA)	I"k (kA)	MVASC (MVA)	I"k (kA)
Scenario 1	6.9	0.362	6.8	0.36
Scenario 2	4.63	0.243	3.06	0.16
Scenario 3	44	2.349	109	5.759
Scenario 4	43	2.29	92	4.845
Scenario 5	44	2.356	114	6.027
Scenario 6	26	1.356	99	5.175

Table 27: Short Circuit Levels for 11kV FRTZ Bus based on IEC 60909 Method of Calculation for Normal Case of 5 Sources

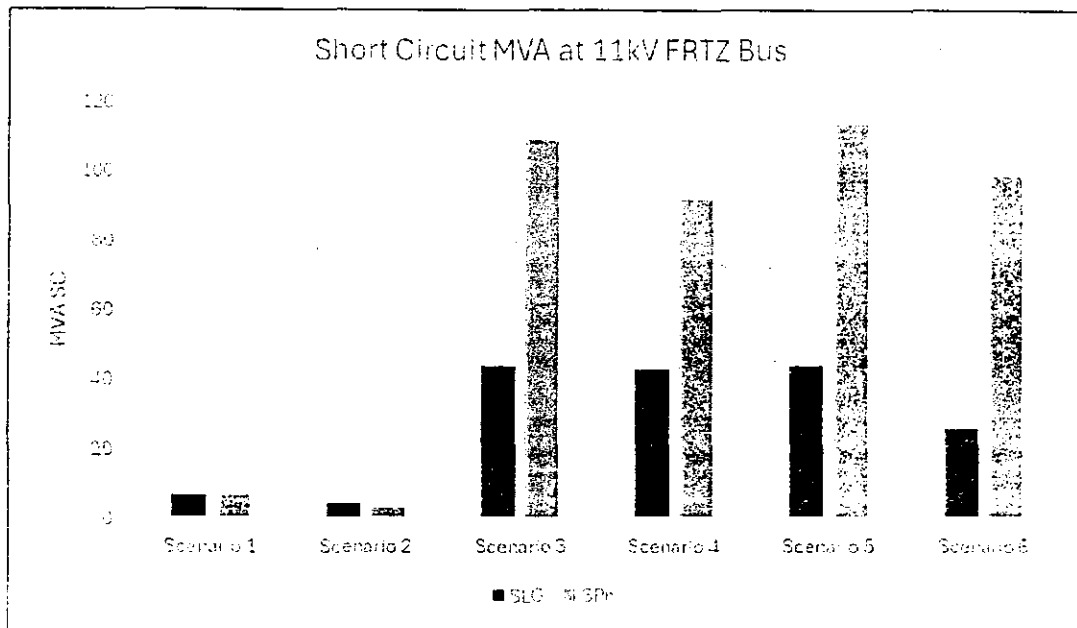


Figure 29: Short Circuit MVA at 11kV FRTZ Bus for Normal Case of 5 Sources

Conclusion

As per power plan, i.e. from 2026 to 2028 with ultimate load demand of 18.5MW the FRTZ site optimized power supply can be easily managed at 11kV through hybrid energy mix model comprising of power from FPCL 60Hz system converted to 50Hz via Frequency Converters through 02 cable feeders as per scenarios mentioned in Table-1.

Following are the key conclusions

- Install at least 20 MVAR of reactive power compensation to maintain 0.9P.F and Voltages within permissible limits at 11kV FRTZ Bus.
- To ensure long-term capacity and thermal margin 1/C, 630mm² XLPE, Cu cables (Option-II) to be preferred.
- Finalize dynamic models for PV, WTG, and frequency converters to conduct more precise transient stability analysis.
- Expedite early commissioning of FPCL 50Hz system by March 2027 to overcome the power deficit of 2MW during non-availability of generation from PV plant and WTG. This can also be managed by addition of power through some other source or curtailment of Non-critical loads.
- In case of power demand exceeding beyond 18.5MW from 2028 onwards timely decision for switching to 132kV Voltage level to be taken by FoST.

**Response to NEPRA Requirement: Schedule II —
Minimum Technical & Human Resource
Compliance**

Minimum Technical & Human Resource Compliance

In compliance with Schedule II of NEPRA's Distribution Licensing Rules, FFBL Power Company Limited confirms that it possesses adequate technical expertise and human resources across all functional domains necessary to fulfill its service-level commitments. The following personnel structure is in place:

♦ Executive Leadership & Oversight

- **Chief Operating Officer (COO):** Provides strategic and operational oversight of all departments.
- **Senior Manager Operations:** Directly oversees cross-functional coordination across technical and non-technical departments to ensure regulatory, commercial, and performance standards are met.

♦ Human Resource Strength

The table below provides a categorized count of personnel across the entire FPCL functional hierarchy in Management Only. (Not including Support Staff of Technical Staff)

Category	Count
Technical (Engineering Staff)	66
Non-Technical Staff	37

♦ Engineering & Technical Capacity

- **Manager Engineering supported by:**
 - 2 Unit Managers
 - 2 Section Managers
 - 4 Deputy Managers
- **Manager E&I (Electrical & Instrumentation) supported by:**
 - 2 Unit Managers
 - 2 Section Managers
 - 6 Deputy Managers
- **Manager Mechanical supported by:**

- **2 Unit Managers**
- **2 Section Managers**
- **6 Deputy Managers**
- **Manager Technical supported by:**
 - **2 Unit Managers**
 - **3 Section Managers**
 - **10 Deputy Managers**
- **Manager Workshop & Inspection supported by:**
 - **2 Unit Managers**
 - **1 Section Manager**
 - **5 Deputy Managers**

This structure ensures round-the-clock operations, maintenance, fault response, inspection, metering, and compliance activities required under NEPRA's service benchmarks.

◆ **Key Technical Domains**

FPCL has dedicated technical departments to ensure uninterrupted, safe, and efficient operations. These include:

- **Operations**
- **Mechanical**
- **Technical**
- **Process Engineering**
- **Workshop & Inspection**
- **Engineering (Core Design)**
- **E&I (Electrical & Instrumentation)**
- **SCM (with engineering support for technical sourcing)**

Each of the above departments is fully staffed with engineering-qualified personnel at all functional levels — from Managers to Executives. The SCM department includes an engineering-qualified Manager and two engineers supporting technical procurement and vendor qualification.

◆ **Commercial, HR & Administrative Functions**

- **Manager Business Development (BD)** supported by:
 - **1 Unit Manager**
 - **4 Section Managers**
 - **4 Deputy Managers**
 - **Manager Human Capital Management (HCM):**
 - **2 Unit Managers**
 - **3 Section Managers**
 - **10 Deputy Managers**
 - **Manager Company Secretariat**
 - Supported by dedicated deputy-level executive
-

◆ **Supply Chain, Finance, and Compliance**

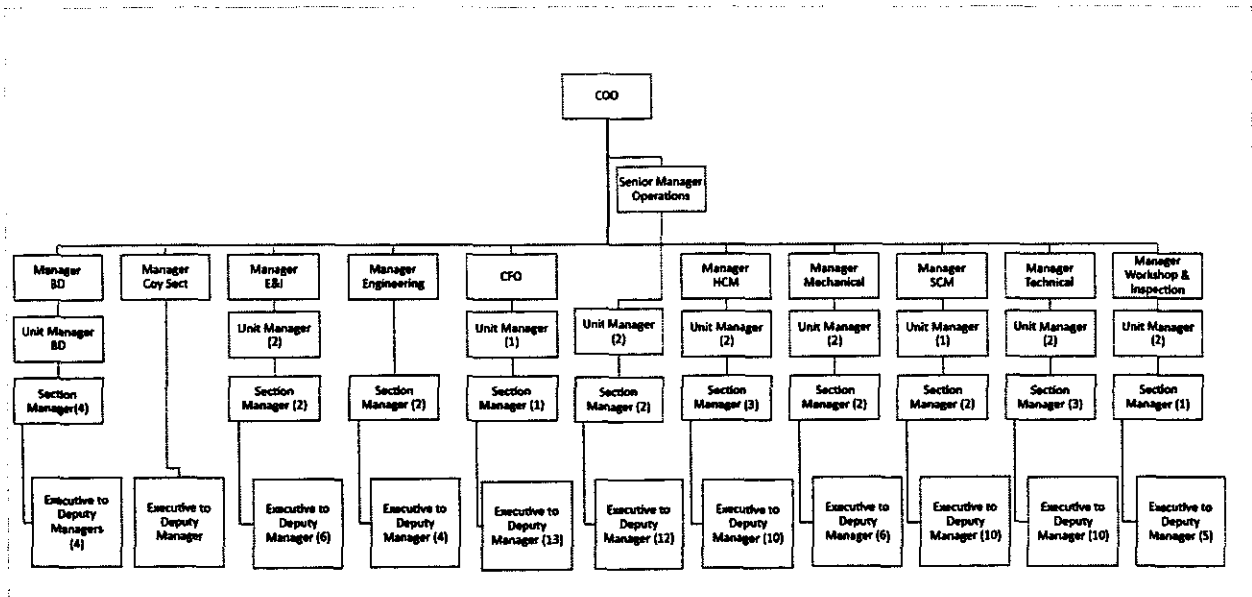
- **Chief Financial Officer (CFO)** with:
 - **1 Unit Manager**
 - **1 Section Manager**
 - **13 Deputy Managers**
 - **Manager Supply Chain Management (SCM):**
 - **1 Unit Manager**
 - **2 Section Managers**
 - **10 Deputy Managers**
-

◆ **Qualified Support Staff**

- Across all departments, the presence of **Executives to Deputy Managers** (ranging from 4 to 13 per division) ensures:
 - Timely reporting
 - Preventive maintenance tracking
 - Inventory and billing systems

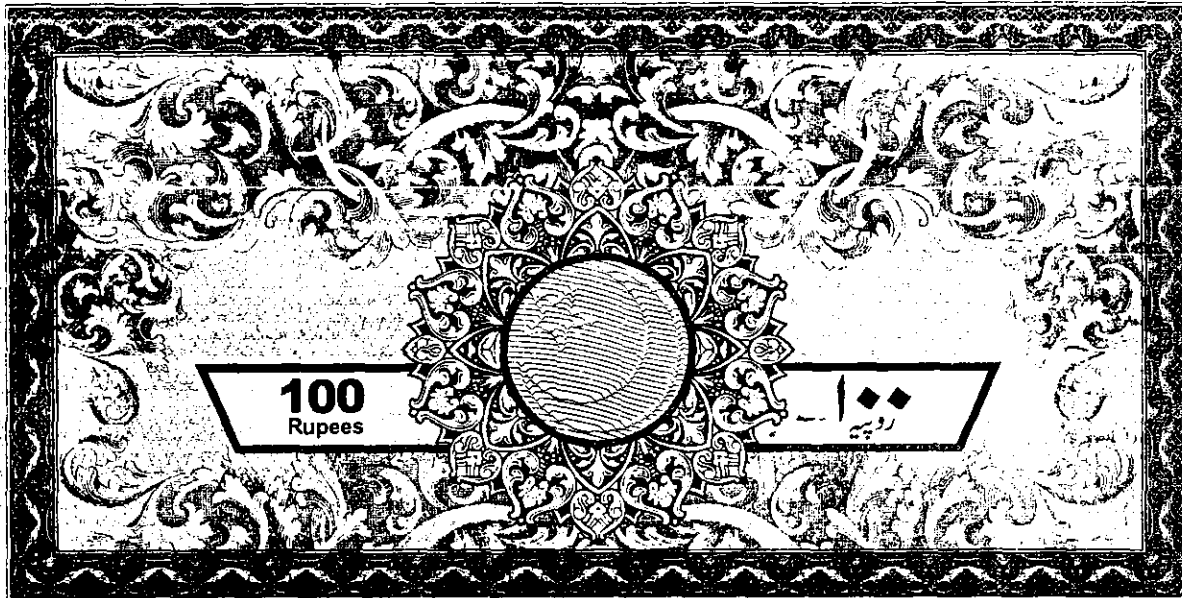
- Customer complaint handling
- Safety audits and documentation

◆ Organogram



Conclusion

FFBL Power Company Limited has a well-structured and adequately staffed technical and support organization that ensures full compliance with the **Minimum Technical and Human Resource Requirements** under Schedule II of the Distribution Licence Rules. Each functional area has designated technical heads, mid-level managers, and operational staff to maintain service-level standards in reliability, safety, customer service, and regulatory compliance.



**BEFORE THE NATIONAL ELECTRIC POWER
REGULATORY AUTHORITY**

AFFIDAVIT

I, Lt Col Ali Siddiq (Retd), S/o Muhammad Siddiq, holding CNIC No. 35302-1977841-9, being the duly authorized representative of FFBL Power Company Limited (FPCL), hereby declare that FPCL fully meets and complies with all requirements and conditions as prescribed under the Eligibility Criteria (Distribution Licenses) Rules, 2023, issued by the National Electric Power Regulatory Authority (NEPRA).

FFBL Power Company Limited (FPCL) further undertakes to provide any additional documentation, clarification, or compliance as may be required by NEPRA.

DEPONENT

Lt Col Ali Siddiq (Retd)
Company Secretary

Authorized Representative
FFBL Power Company Ltd.
Date June 30, 2025

