

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

#### Subject: <u>ADDENDUM-01 TO APPLICATION FOR A GENERATION LICENSE FOR</u> FAUJI FERTILIZER BIN QASIM LIMITED

Dear Sir,

I, Brig Aamir Hussain Mirza (Retd), being the duly authorized representative of **Fauji Fertilizer Bin Qasim Limited (FFBL)**, by virtue of Board Resolution date April 16, 2021, had applied to the National Electric Power Regulatory Authority (the "Authority") for the grant of a Generation License to **FFBL**, pursuant to section 14B of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (the "Act").

That, at the time of submission of the aforementioned Application, it was brought to our knowledge that NEPRA Licensing (Application and Modification Procedure) Regulation, 1999, had been repealed, whereas the Authority had been pleased to notify new Regulations, namely, National Electric Power Regulatory Authority Licensing (Application, Modification, Extension and Cancellation) Procedure Regulations, 2021 (the "**New Regulations**").

In view of above, it is requested that the competent Authority may kindly treat our Application, pending before the Authority, along with all documents forming part thereof, as having been submitted under the New Regulations.

Moreover, it has been duly noted that the Pay Order submitted by FFBL, in support of its Application, is s. 282,640/- less than the applicable fee stipulated in the New Regulations. Therefore, in compliance with



FFBL Tower, C1 - C2, Street Jinnah Boulevard, Sector B, DHA Phase II, Islamabad. Pakistan Tel:No:- 92 51 8763325 Fax No:- 92 51 8763305 www.ffbl.com



Schedule II of the New Regulations, please find attached herewith Pay Order No. <u>17512713</u>, dated <u>26 May 2021</u>, for the amount of Rs 282,640.

Date: 26 May 2021

Brig Aamir Hussain Mirza (Retd), Company Secretary Fauji Fertilizer Bin Qasim Limited





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

#### Subject: <u>AUTHORIZATION TO JAMAL & JAMAL ADVOCATES AND LEGAL</u> <u>CONSULTANTS FOR FILING OF GENERATION LICENSE APPLICATION ON</u> <u>BEHALF OF FFBL</u>

Dear Sir,

I, Brig Aamir Hussain Mirza (Retd), being the duly authorized representative of Fauji Fertilizer Bin Qasim Limited. (FFBL), hereby authorize Jamal & Jamal Advocates and Legal Consultants, to submit the Generation License application, receive correspondence from NEPRA and furnish replies to any queries raised by NEPRA, submit any additional documents to NEPRA, as and when required or deemed appropriate, and act on behalf of FFBL in all matters pertaining to the instant Generation License Application.

Date: May 05,2021

Brig Aamir Hussain Mirza (Retd), Company Secretary Fauji Fertilzer Bin Qasim Limited





## RESOLUTION # 17/2021 PASSED DURING 145<sup>TH</sup> BOARD OF DIRECTORS' MEETING HELD ON 16 APR 2021

"RESOLVED THAT subject to requisite licenses, approvals and consents, as may be required, the Company be and is hereby authorized to operate its Gas / Steam Turbine Generators and to increase / enhance its capacity to generate electric power and to negotiate, finalize and enter into a power purchase agreement to sell and supply upto 60 MW electric power with phase wise approach i.e. Construction 02 MW, Phase 01- 20 MW & Phase 2- 60 MW and to enter into utility or service supply / purchase agreement with Risesince Steel (Private) Limited ("RSL") for a period of 20 Years. FFBL can also sell power received from FPCL under already executed PPA/SSA, if it exceeds its operational requirement ("Sale of Electricity");

**FURTHER RESOLVED THAT** the Managing Director and the Company Secretary of the Company, (each an "Authorized Person") are hereby authorized to [singly/jointly] negotiate, finalize, issue, execute, deliver and perform the obligations under the agreements mentioned above and any and all amendments, variations, communications, certificates, notices, acknowledgements or other documents pertaining to such agreements, on behalf of the Company, in such manner as the relevant agreement may require and to approve any amendments, variations, communications, certificates, notices, communications, certificates, notices, or other documents agreement may require and to approve any amendments, variations, communications, certificates, notices, acknowledgements or other documents.

FURTHER RESOLVED THAT the Company be and is hereby authorized to seek and obtain any and all corporate, governmental, statutory, regulatory or other consents, approvals, licenses, authorizations, waivers or exemptions as may be required for the purpose of Sale of Electricity and / or Sublease (including, without limitation, from the National Electric Power Regulatory Authority, Port Qasim Authority, Securities and Exchange Commission of Pakistan, the lenders and shareholders of the Company and from other third parties as required);

FURTHER RESOLVED THAT the Authorized Persons be and are hereby authorized, [singly/jointly], to make all such applications and filings, seek such consents, licenses, authorizations, waivers or exemptions and incur such fees and expenses, for and on behalf of the Company, and to take any all such further actions or

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FFBL Tower, C1 - C2, Street Jinnah Boulevard, Sector B, DHA Phase II, Islamabad, Pakistan Tel No:- 92 51 8763325, Fax No:- 92 51 8763304, www.ffbl.com



steps as may be necessary or conducive for the implementation of these resolutions and to delegate, in writing, to any officer of the Company, any of the powers and authority vested in them by these resolutions.

**FURTHER RESOLVED THAT** the Company Secretary be and is hereby authorized to provide a certified true copy of these resolutions to whomever it may concern".

CERTIFIED TRUE COPY

Brig Aamir Hussain Mirza (Retd) Company Secretary



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# **GOVERNMENT OF PAKISTAN**



# CERTIFICATE OF INCORPORATION

Uniter section 12 of the Companies Ordinance, 1984 (XLVII of 1984)

Company Registration No. 1-01326

I hereby certify that \_\_\_\_\_ "FFC-JORDAN FERTILIZER COMPANY

I IMITED"

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 <u>Islamabad</u>

this 17th \_\_\_\_\_day of \_\_\_\_\_day of \_\_\_\_\_

one thousand nine hundred and <u>ninety-three</u>

Fee Rs. 2,500,000/- (Rupees Two and half million)



Sd:-(NAZIR AHMED SHAHEEN) Doputy Registrar of Companies ISLAMABAD

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**EXTERNAL** 

## SECURITIES AND EXCHANGE COMMISSION OF PAKISTAN

CERTIFICATE OF INCORPORATION ON CHANGE OF NAME

[Under section 40 of the Companies Ordinance, 1984 (XLVII of 1984)]

Company Registration No. 1-01326.

I hereby certify that pursuant to the provisions of section 38 or section 39 of the Companies Ordinance, 1984 (XLVII of 1984) the name of **FFC-JORDAN FERTILIZER COMPANY LIMITED** has, with the approval of the Registrar of Companies, Pakistan, been changed to Fauji Fertilizer Bin Qasim Limited and that the said company has been duly incorporated as a company limited by Shares under the provisions of the said Ordinance.

This change is subject to the condition that for period of one year from the date of issue of this certificate, the company shall continue to mention its former name alongwith its new name on the outside of every office or place in which its business is carried on and in every document or notice referred to in clauses (a) and (c) of section 143.

Given under my hand at Islamabad this 3<sup>rd</sup> day of November two thousand and three.

EXTERNAL

The Companies Ordinance, 1984 Company Limited by Shares MEMORANDUM OF ASSOCIATION

OF

### Fauji Fertilizer Bin Qasim Limited

- I. The name of the Company is Fauji Fertilizer Bin Qasim Limited.
- II. The Registered Office of the Company will be situated in the Islamabad Capital Territory.
- III. The objects for which the Company is established are:
- (1)To enter into and carryon the business of manufacturing, producing, buying, selling, importing and exporting or otherwise dealing in or with chemicals and fertilizers of any and all kinds, including, but without limiting the generality of the foregoing, artificial or natural fertilizers, compound, complex, nitrogenous, phosphatic and potassium fertilizers, soil amendments, micronutrients, super-phosphates, phosphoric acid, sulphuric acid, intermediates, dips, sprays, vermifuges, fungicides, insecticides, herbicides, pesticides, medicines, animal feed supplements of any and all kinds and any products and by-products which may be derived, produced, prepared, developed, compounded, made or manufactured therefrom and any substance obtained by mixing any of the foregoing with other substances and to preserve, pack and transport the said products; to own, purchase or otherwise acquire and to sell or otherwise dispose of any mines, manufactories, plant, machinery, appliances, tools, supplies, materials, and any other property of any nature whatsoever, suitable, convenient or necessary for any of the purposes aforesaid or which may lawfully be used in connection therewith and to establish agencies and warehouses for the storage, sale and distribution of said products as incidental to the carrying on of any such business and in connection therewith or as a part thereof, to canyon any business, trade, or occupation necessary, convenient or useful therein or thereto, or which is or may be customarily carried on by others engaged in conducting a chemical or fertilizer business.
- (2) To export and import, to manufacture, purchase and prepare for market and generally deal in merchandise of every kind and description in the said business.
- (3) To export, import, manufacture, buy, sell, deal in and use chemicals of all kinds and articles and things used in the manufacture, maintenance and working thereof, and also all apparatus and implements and things for use either alone or in connection with the products of which they are ingredients, or in the manufacture of which they are a factor.

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- (4) To purchase or otherwise acquire, sell, supply, market, distribute, exchange, or otherwise dispose of, import, export, store, hold, package, transport, use, experiment with, handle, trade, dispense, apply and generally deal in fertilizers and chemical products and agricultural products and equipment and perform services and operations related thereto, and so far as may be conducive to the attainment of the said objects or as is convenient or advantageous in connection therewith.
- (5) To own, lease, license, purchase or otherwise acquire, maintain, work, gather, get in, and develop gas, minerals and chemicals and other substances of all kinds and to pipe, transport, store, process, refine, treat, supply and deal in all such substances.
- (6) To construct, own, purchase, acquire, lease, build, erect, install, establish, operate, manage and maintain plants, laboratories, equipment, apparatus and other facilities for the manufacture, refining, processing, storage, sale and distribution of fertilizers and chemical products.
- (7) To purchase or otherwise acquire, become interested in, deal in and with, invest in, hold, sell, mortgage, pledge, or otherwise dispose of, turn to account or realise, all forms of securities, including shares, bonds, debentures, notes, evidence of indebtedness, securities of any nature or form convertible into or exchangeable for other securities of any nature or form, certificates of interest, participation certificates, and certificates evidencing shares of or interest in trusts and trusts estates or associations, certificates of trust of beneficial interests in trusts, mortgages and other instruments, securities and rights.
- (8) To investigate and report with respect to, and undertake, carry on, aid, assist on participate in the organisation, liquidation or reorganisation of financial, commercial, mercantile, manufacturing, industrial or other business concerns, firms, associations and corporations.
- (9) To institute, participate in, or promote commercial, mercantile, financial and industrial enterprises and operations.
- (10) To acquire by purchase or otherwise, own, hold, buy, sell, convey, lease, mortgage or encumber real estate and other property, personal or mixed, and to survey, subdivide, plan, improve and develop lands for purposes of sale or otherwise, and to do and perform all things needful and lawful for the development and improvement of the same for residence, trade or business.
- (11) To supply any cities, towns, villages, communities, counties, and the inhabitants thereof, corporations, partnerships, individuals, places of amusement or exhibition, or any two or more of either or the same, with water, light, heat, gas and/or electric power, and to do any and all things incidental, necessary, and/ or proper in furtherance of and/ or in connection with the foregoing objects and purposes.

- (12) To apply for, obtain, register, purchase, lease or otherwise to acquire, and to hold, use, own, operate and introduce and to sell, assign or otherwise dispose of, any trademarks, trade-names, copyrights, patents, inventions, improvements and secret processes used in connection with or secured under entry of any certificate of trademarks or otherwise, and to use, exercise, develop and grant licenses in respect thereof, or otherwise turn to account any such trade-marks, copyrights, patents, licenses, processes and the like or any such property or rights, necessary or incidental thereto.
- (13) To buy, lease, sell, exchange or otherwise acquire and to construct, lay, maintain and operate pipelines and other conveyors for the transportation of gases, liquids, minerals and chemicals and other substances.
- (14) To construct, erect and build structures and buildings including, but without prejudice to the generality of the foregoing, factories, warehouses, workshops, offices, sheds, dwellings, stores and any other works or convenience which may seem directly or indirectly conducive to any of the objects of the Company.



- To buy, sell, manufacture, store, repair, alter, improve, exchange, hire, import, export and deal in all factories, works, plant, machinery, tools, utensils, aircraft, vehicles, appliances, apparatus, products, materials, substances, articles and things capable of being used in any business which the Company is competent to carry on or required by any customers of or persons dealing with the Company or commonly dealt with by persons engaged in any such business or which may seem capable of being profitably dealt with in connection therewith and to manufacture, experiment with, render marketable and deal in all products of residue and by-products incidental to or obtained in any of the businesses carried on by the Company.
- (16) To purchase, take on lease or tenancy or in exchange, hire, take options over or otherwise acquire for any estate or interest whatsoever and to hold develop, work, cultivate, deal with, dispose of and turn to account concessions, grants, decrees, licenses, privileges, claims, options, leases, property, moveable or immoveable, or rights or powers of any kind which may appear to be necessary or convenient for any business of the Company or for purposes of investment or re-investment and to purchase, charter, hire, build or otherwise acquire vehicles of any or every sort or description and to use the same for the carriage of merchandise or passengers of all kinds and to carry on the business of owners of trucks, lorries, motor-cars and aircraft in all or any of their respective branches.
- (17) To sell, exchange, mortgage or let on lease or royalty all or any of the property of the Company and to grant licenses, easements, options or other rights over the same and to accept such consideration as may be thought fit for the same.
- (18) To construct and provide or otherwise acquire, whether by purchase, lease or otherwise, residential accommodation for persons engaged in the business of the Company.

- (19) To aid any government or state, or any municipal or other body corporate, or company, or association, or individuals, with capital, credit, means or resources for the prosecution of any works, under-takings, projects or enterprises subject to provision of Section 197 of the Ordinance.
- (20) To provide the industrial classes with commodious and healthy lodgings and dwellings.
- (21) To manage, improve, farm, cultivate, maintain, lease, underlet, exchange, sell or otherwise deal with and dispose of all or any part of the lands and buildings or other real property of the Company, not required for the purposes of the Company.
- (22) To appropriate any part or parts of the property of the Company for the purposes of, and to build and let or sell, shops, offices and other places of business.
- (23) To advertise all or any of the manufactures or goods of the Company in any way that may be thought advisable, including the posting of bills in relation thereto, and the issue of books, pamphlets and price lists, and the conducting of competitions and the giving of prizes therefor.
- (24) To enter into working arrangements of all kinds with other companies, corporations, firms or persons, and also to make and carry into effect arrangements in respect to union of interests or amalgamation, either in whole or in part, or any other arrangements with any other companies, corporations, firms or persons.
- (25) To promote and form other companies for all or any of the objects mentioned in this Memorandum or any extension thereof and to transfer to any such company all or any of the property of this Company, and to take or otherwise acquire shares, debentures or other securities of any such company, and to subsidise or otherwise assist any such company.
- (26) To obtain all powers and authorities necessary to carry out or extend any of the objects herein.
- (27) To apply for and obtain any provisional orders of any Government department or Ministry for any of the purposes within the objects of this Company.
- (28) To support and subscribe to any charitable or public object, and any institution, society or club which may be for the benefit of the Company or its employees or may be connected with any town or place where the Company carries on business; to give pensions, gratuities or charitable aid to any persons who may have been Directors of or may have served the Company, or to the wives, children, or other relatives or dependents of such persons; to make payments towards insurance, and to form and contribute to provident and benefit funds for the benefit of any such persons, or of their wives, children, or other relatives or dependents.

(29) To enter into any arrangement and to take all necessary or proper steps with the Government of Pakistan, and, with the approval of the Government of Pakistan, with any provincial government or foreign government or public authority, local, municipal or otherwise or with any corporation or private persons or all or any of these for the purposes of directly or indirectly carrying out the objects of the Company or effecting any modification in the constitution of the Company or furthering the interests of the Company and to oppose any such steps taken by any other authority, firm or person which the Company considers likely, directly or indirectly, to prejudice its interests, and to obtain from any such governmental or other public authority any charters, contracts, decrees, rights, grants, loans, subsidies, privileges, concessions, indemnities, sanctions or consents as the Company may think proper.

(30) To draw, make, accept, discount, endorse, execute and issue promissory notes, bills of exchange, hundies, bills of lading and other negotiable or transferable securities and to advance, deposit with or lend money, securities or property to such persons, firm or company and on such terms with or without security, as the Company deems fit, but not to operate as a banking and/or investment company.

To undertake financial and commercial obligations, transactions and operations of a likinds, but not to act as a banking and/or investment company.

- (32) To invest any moneys of the Company not for the time being required for any of the purposes of the Company in such investments (other than the shares or stocks of the Company) as may be thought proper and to hold, sell or otherwise deal with such investments, but not to act as a banking and/or investment company.
- (33) To receive money on deposit or loan and borrow, raise or secure the payment of money in such manner as the Company shall think fit and in particular by the issue of debentures or debenture-stock, perpetual or otherwise, charged upon all or any of the Company's property, both present and future, and to purchase, redeem and pay off any such securities, but not to act as a banking and/or investment company.
- (34) To apply for, purchase or otherwise acquire and protect, prolong and renew, whether in Pakistan or elsewhere, any patents, patent rights, brevets d'invention, trade marks, licenses, protections, concessions and the like conferring any exclusive or nonexclusive or limited right to use the same or any secret or other information as to any invention, process or privilege which may seem capable of being used for any of the purposes of the Company or the acquisition of which may seem calculated directly or indirectly to benefit the Company and to use, exercise, develop, manufacture under or grant licenses or privileges in respect of, or otherwise turn to account the property, rights and information so acquired and to carry on any business in any way connected therewith.

- (35) To expend money in experimenting on and testing and in improving or seeking to improve any patents, rights, inventions, discoveries, processes or information of the Company or which the Company may acquire or propose to acquire.
- To form, incorporate or promote any company or companies whether in Pakistan or (36) in any foreign country, having amongst its or their objects the acquisition of all or any of the assets or control, management or development of the Company or any other objects or object which in the opinion of the Company could or might directly or indirectly assist the Company in the management of its business or the development of its properties or otherwise prove advantageous to the Company and to pay all or any of the costs and expenses incurred in connection with any such promotion or incorporation and to remunerate any person or company in any manner it shall think fit for services rendered or to be rendered in obtaining subscriptions for or placing or assisting to place or to obtain subscription for or for guaranteeing the subscription of or the placing of any shares in the capital of the Company or any bonds, debentures, obligations or securities of any other company held or owned by the Company or in which the Company may have an interest or the promotion or formation of any other company in which the Company may have an interest, subject to prior permission of the Federal Government.
- (37) To take or otherwise acquire and hold shares, stock, debentures, debenture-stock, and other securities whether convertible into shares to acquire and undertake the whole or any part of the shares, business, property or liabilities of any other company having objects altogether or in part similar to those of the Company or carry figures. any business capable of being conducted so as directly or indirectly to benefit the Company.

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- (38) To enter into partnership or into any arrangement for sharing profits or into any union of interests, joint venture, reciprocal concession or co-operation with any person or persons or company or companies, firms, corporations or institutions carrying on or engaged in, or about to carry on or engage in, or being authorised to carry on or engage in any business or transaction which the Company is authorised to carry on or engage in or any business or transaction capable of being conducted so as directly or indirectly to benefit the Company.
- (39) To grant pensions, allowances and bonuses to employees (including Directors) or ex-employees of the Company including payment of premiums on life policies of employees or their dependents, to establish and operate Provident Funds for the same and to establish and support or aid any schools and any educational, scientific, literary, religious or charitable institutions or trade societies whether such societies be solely connected with the trade carried on by the Company or not, and any club or other establishment calculated to advance the interests of the Company or its employees.
- (40) To pay any premiums or salaries and to pay for any property, rights or privileges acquired by the Company or for services rendered in connection with the promotion

of the objects or the business of the Company or in connection with the acquisition of any property, rights or privileges for the Company or otherwise howsoever, either wholly or partially in cash or in shares, bonds, debentures or other securities of the Company and to issue any shares, bonds, debentures or other securities, and to charge any such bonds, debentures or other securities upon all or any part of the property of the Company.

- (41) To distribute all or any of the property of the Company amongst the members in specie or in kind, but so that no such distribution amounting to an unlawful reduction of capital be made.
- (42) To subscribe or guarantee money for any national, charitable, benevolent, public, general or useful object or for any exhibition.

(43)

To aid, pecuniarily or otherwise, any association, body or movement having for an object the solution, settlement or surmounting of industrial or labour problems or troubles or the promotion of industry or trade.

To establish and maintain agencies, branches or depots and to carry on business in any part of Pakistan or in any part of the world, and to take such steps as may be necessary to give the Company such rights and privileges in any part of the world as are possessed by local corporations or partnership firms as may be thought best.

- (45) To provide services to any business or concern that the Company may find convenient or advantageous and to do any kind of commercial, financial and agency business.
- (46) To establish, provide, maintain and conduct or otherwise subsidize research laboratories and experimental workshops for scientific and technical research and experiments and undertake and carry on all scientific and technical researches, and tests of all kinds, to promote studies and research both scientific and technical investigation and invention by providing or assisting laboratories, workshops, libraries, lectures, meetings and conferences and by providing the remuneration of scientific or technical teachers and for providing for the award of scholarships, prizes, grants and bursaries to students or independent students or otherwise and generally to encourage, promote and reward studies, research, investigations, experiments, tests and inventions of any kind that may be considered likely to assist any of the business which the Company is authorised to carry on.
- (47) To accept shares in, or the debentures, mortgage-debentures or other securities of any other company in payment or part payment for any services rendered or for any sale made to or debt owing from any such company.
- (48) To pay brokerage, commission or other remuneration to any person or persons in consideration of his or their subscribing or agreeing to subscribe whether absolutely or conditionally for any shares or debentures of the Company or procuring or

agreeing to procure subscriptions whether absolute or conditional for the same which brokerage or commission or remuneration may be paid either in cash or in debentures or shares of the Company.

- (49) To provide openings for the fullest possible employment of Pakistani Nationals in the administrative and technical departments of the Company and to accept Pakistani Nationals as apprentices for training and to establish, provide, maintain and conduct schools, training colleges, laboratories, workshops, and other institutions for the education, training and instruction of Pakistani Nationals whom the Company may be able to take into service and who may desire to avail themselves of the same and thereby qualify themselves for promotion to executive posts in the service of the Company, subject to prior permission of the education authority whether federal or provincial as the case may be, within the prevalent rules & regulations of the authority.
- (50) To pay all costs, charges and expenses which the Company may lawfully pay with respect to the formation and registration of the Company.
- (51) To do all or any of the things herein in any part of the world either as principals, agents, trustees, contractors or otherwise, and either alone or in conjunction with others.
- (52) To do all and everything necessary, suitable or proper or incidental or conducive to the accomplishment of any of the purposes or the attainment of any of the objects or the furtherance of any of the powers hereinbefore set forth, either alone or in association with other corporate bodies, firms or individuals and to do every other act or thing incidental or appurtenant to or arising out of or connected with the business or powers of the Company or part thereof, provided the same be lawful.

IT IS HEREBY UNDERTAKEN that the Company shall not engage in the banking business, business of a finance or investment or leasing company, business of managing agent or any unlawful business and that nothing in the objects clause shall be construed to entitle it to engage in such business.

It is expressly declared that the several sub-clauses of this clause and all the powers expressed therein are to be cumulative but in no case unless the context expressly so requires is the generality of any one sub-clause to be narrowed or restricted by the name of the Company or by the particularity of expression in the same sub-clause or by the application of any rule of construction such as the ejusdem generis rule, and accordingly none of such subclauses or the objects therein specified or the power thereby conferred shall be deemed subsidiary or auxiliary merely to the objects mentioned in any other sub-clause of this clause, and the Company shall have full power to exercise all or any of the powers conferred by any part of this clause in any part of the world.

It is undertaken that the company shall not by advertisement, pamphlets, other means or through negotiations offer for sale or take advance money for the future sale of plots, houses, flats etc to the general public or individuals unless such plots, houses, or flats etc are owned and developed by the company.

IV. The Liability of the members is limited.

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V. The authorised share capital of the Company is Rs. 15,000,000,000 (Rupees fifteen Billion) divided into 1,500,000,000 (one Billion and five Hundred Million ordinary shares) of Rs. 10 (Rupees ten) each with the rights, privileges and conditions attaching there to as are provided by the regulations of the Company for the time being.

(Increased Authorised Share Capital from Rs 11,000,000,000 to Rs 15,000,000,000 Vide Resolution Passed in EGM dated 9 Sep 2020



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

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	Names, Addresses & Description of each Subscriber	Number of Shares taken by each Subscriber	Signature of the Subscriber	Name, Address & Description of Witness to Signature.	Occupation
1.	Lt. Gen. Imtiaz Waraich (Retd). Fauji Foundation Harley Street, Rwp. S/o Ch. Inayat Ullah Waraich (Pakistani)	1(One)	Sd/-		Service
2.	Maj. Gen. AKM Khalil Ur Rahman (Retd). Fauji Foundation Harley Street, Rwp. S/o Abdul Hakim Baig (Pakistani)	l(One)	Sd/-		Service
3.	Mr. Iltifat Rasul Khan. Fauji Foundation Harley Street, Rwp. S/o Niamat Rasul Khan (Pakistani)	l(One)	Sd/-		Service
4.	Brig Mushtaq Ali Khan (Retd) Fauji Foundation Harley Street, Rwp. S/o Brig Qurban Ali Khan (Pakistani)	l(One)	Sd/-	Sd/-	Service
5.	Brig M. Ahsan Bhatti (Retd). Fauji Foundation Harley Street, Rwp. S/o Rai Khuda Baksh Bhatti (Pakistani)	I(One)	Sd/-	Syed Bashir-ud- Din Ahmad, Advocate, Harley Street, Rawalpindi	Service
6.	Brig Muneeb-ur-Rehman Farooqui (Retd). Fauji Foundation Harley Street, Rwp. S/o Sheikh Hussain Farooqui (Pakistani)	1(One)	Sd/-	S/o Late Mir Syfuddin (Pakistani)	Service
7.	Mr. Adnan Ahmad Ali 67, Street No. 23 DHS Phase V. Karachi S/o Ch. Ahmad Ali (Pakistani)	1(One)	Sd/=		Service

Dated the 1st day of November, 1993, Rawalpindi.

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The Companies Ordinance, 1984

#### Company Limited by Shares

## ARTICLES OF ASSOCIATION OF Fauji Fertilizer Bin Qasim Limited

#### PRELIMINARY

- 1. The regulations contained in Table 'A' in the first Schedule to the Companies Ordinance, 1984, shall not apply to the Company except insofar as they may be reproduced or contained in these Articles.
  - The chapter headings shall not affect the construction hereof, and in these Articles, unless there is something in the subject or context inconsistent therewith:

"The Ordinance" means the Companies Ordinance, 1984 as amended and now in force in Pakistan and any amendment or re-enactment thereof for the time being in force and any rules made thereunder.

"The Articles" means these Articles of Association as originally framed or altered from time to time by Special Resolution.

"The Board" means the Directors from time to time of the Company acting at a meeting or through a duly authorised Committee of Directors or pursuant to written consent as herein provided.

"The Company" means Fauji Fertilizer Bin Qasim Limited.

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

"The Directors" means the Directors of the Company appointed or elected from time to time pursuant to these Articles, and shall include alternate Directors.

"Dividend" means the distribution of profits of the Company to its members.

"The Debenture" shall include Participation Term Certificates and Term Finance Certificates.

"Special Resolution" shall have the meaning ascribed thereto by clause (36) of sub-section (1) of Section 2 of the Ordinance.

"FFC" means Fauji Fertilizer Company Limited, a company duly formed under the Laws of Pakistan and having its registered office at 156, The Mall, Rawalpindi, Pakistan. (Passed vide 11th EGM dated 24 Aug 2016)

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

"The 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.

"The Office" means the Registered Office of the Company.

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

"The Seal" means the Common Seal as adopted by the Company.

"In Writing" and "Written" include printing, lithography and other modes of representing or reproducing words in visible form.

Words imparting the singular number include the plural number and vice versa

Words imparting persons include bodies corporate, corporations, foundations and charitable endowments.

Words imparting the masculine gender include the feminine gender.

Words or expressions contained in the Articles shall, unless inconsistent with the subject or context, have the same meanings as in the Ordinance.

3. The Company is formed as a public limited company within the meaning of the Ordinance.

#### CAPITAL

4. The authorised capital of the Company is Rs. 15,000,000,000 (Rupees fifteen Billion) only, divided into 1,500,000,000 (one Billion and five Hundred Million) ordinary shares of Rs. 10 (Rupees ten) each. The minimum subscription on which the Director may proceed to allotment shall be Rs.1,000,000.

(Increased Authorised Share Capital from Rs. 11,000,000,000 to Rs. 15,000,000,000 vide Resolution Passed in EGM dated 9 Sep 2020)

#### SHARES AND ISSUE OF SHARES

- 5. Subject to the provisions of the Ordinance the shares shall be under the control of the Board 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 thinks 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.
- 6. The Board shall, as regards any allotment of shares, duly comply with such provisions of Sections 68 to 73 of the Ordinance as may be applicable.
- 7. Subject to Section 86 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 subsection (7) of Section 87 of the Ordinance, dispose of the same in such manner as it may consider most beneficial to the Company.



If and whenever as a result of an issue of new shares or any consolidation or subdivision of shares any member becomes entitled to hold shares in fractions, the Board shall not be required to issue such fractional shares and shall be entitled to sell such whole shares at a reasonable price and pay and distribute to and amongst the members entitled to such fractional shares in due proportion the net proceeds of the safe thereof. For the purpose of giving effect to any such sale the Board may authorise any person to transfer the shares to the purchaser thereof, and the purchaser shall be registered as the holder of the shares comprised in such transfer.

- 9. Subject to the provisions of the Ordinance 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.
- 10. Any application or subscription signed by or on behalf of an applicant or subscriber for shares in the Company, followed by an allotment of any shares therein, shall be an acceptance of shares within the meaning of the Articles, and every person who thus or otherwise accepts any shares and whose name is entered on the register shall for the purposes of the Articles be a member.
- 11. The Company shall be entitled to treat the person whose name appears in the Register as the holder of any shares as the absolute owner thereof, and accordingly shall not (except as ordered by a Court of competent jurisdiction or as by Law

required) be bound to recognise any trust or entity or benami, equitable, contingent or other claim to or interest in such shares, on the part of any person whether or not it shall have express or implied or constructive notice thereof.

12. Subject to Section 82 of the Ordinance, the Company may at any time pay a commission to any person for subscribing or agreeing to subscribe (whether absolutely or conditionally) for any shares or debentures or procuring or agreeing to procure subscription whether absolutely or conditionally for any shares or debentures of the Company, so that the amount or rate of commission shall not exceed such percentage/rate as may be agreed by the company of the price at which the shares are issued or of the nominal value of the debentures in each case subscribed or to be subscribed. The Company may also pay brokerage not exceeding 1% (one percent) (or such other rate as may be prescribed by the Corporate Law Authority) in respect of any subscription for shares or debentures. Provided that no brokerage to a broker nor commission to Bankers shall be payable in respect of shares taken up by underwriters by virtue of underwriting commitments nor shall such brokerage or Banker's or underwriting commission be payable in respect of shares subscribed by National Investment Trust Limited through exercise of any option the said National Investment Trust Limited may have. All brokerage and commissions shall be payable in cash.

#### SHARE CERTIFICATES

- 13. Every member shall be entitled within the time period specified in Section 74 of the Ordinance without payment to one certificate for all the shares registered in his name, or upon paying such fee as the Board may from time to time determine, to several certificates, each for one or more shares. Every certificate of shares shall specify and denote the number of shares in respect of which it is issued. Such certificates shall be issued under Seal. Provided that in respect of a share or shares held jointly by several persons, the Company shall not be bound to issue more than one certificate and delivery of a certificate for a share to one of several joint holders shall be sufficient delivery to all.
- 14. If any certificate is worn-out, defaced or rendered useless, then, upon production thereof to the Board, the Board may order the same to be cancelled and may issue a new certificate in lieu thereof, and if any certificate is lost or destroyed, then, on proof thereof to the satisfaction of the Board, and on such indemnity as the Board deems adequate being given, a new certificate in lieu thereof shall be given to the party entitled to such lost or destroyed certificate. The new certificate may be issued on such terms and fee as may be prescribed by the Board including payment of expenses incurred by the Company in investigating title.

#### TRANSFER AND TRANSMISSION OF SHARES

15. The instrument of transfer of any share in the Company shall be executed both by the transferor and the transferee and the transferor shall be deemed to remain holder

of the share until the name of the transferee is entered in the Register in respect thereof.

The Company shall keep a book to be called the "Register of Transfers' and therein shall be entered the particulars of every transfer or transmission of any share.

16. The instrument of transfer of any share in the Company shall be in writing in the form appearing hereunder, or in any usual or common form which the Board may approve.

"I\_\_\_\_\_\_s/o\_\_\_\_\_of\_\_\_\_\_being a\_\_\_\_\_\_National, (hereinafter Called the "Transferor") in consideration of the sum of Rs.\_\_\_\_\_\_\_(Rupees\_\_\_\_\_\_Paid to me by\_\_\_\_\_\_ s/o\_\_\_\_\_of\_\_\_\_\_a National of \_\_\_\_\_\_(hereinafter called the "Transferee") do hereby transfer to the Transferee—\_\_\_\_\_\_share(s) numbered\_\_\_\_\_\_\_in the undertaking called FAUJI FERTILIZER BIN QASIM LIMITED to hold the same unto the said Transferee, his (or her) executors, administrators and assigns, subject to the several conditions on which I held the same Timpediately before the execution hereof, and I, the Transferee, do hereby agree to take the said share(s) subject to the conditions aforesaid.

Signature (Transferor)

Signature (Transferee)

Witnesses, etc".

- 17. No shares shall be transferred to an insolvent or as otherwise prohibited by Law or by these Articles.
- 18. The Board shall have the power on due notice given in the manner prescribed in Section 151 of the Ordinance to close the Register for such period or periods of time not exceeding 30 (thirty) days at a time and 45 (forty-five) days total in any year.
- 19. In the case of the death of a shareholder, the survivor or survivors, where the deceased was a joint holder, and (subject as hereinafter provided), where the deceased was a sole or only surviving holder, the executors or administrators of the deceased holding a Grant of Probate or Letters of Administration, or such person or persons mentioned in any Succession Certificate effective in Pakistan, or the nominee(s) of the deceased shareholder appointed under Section 80 of the Ordinance, shall be the only persons recognised by the Company as having any title to the shares, but nothing herein contained shall release the estate of a deceased holder (whether sole or joint) from any liability (whether sole or joint), in respect of any share solely or jointly held by him. In any case in which such a Grant of Probate or Letters of Administration or Succession Certificate to the estate of a deceased sole or only surviving holder has not been obtained or a nomination was not made by the deceased as above-mentioned, the Board may, but shall not be

bound to, recognise the title to any person claiming to be entitled to the deceased holder's share on production by such claimant of any other evidence of title as the Board may deem sufficient, and upon the claimant providing such indemnity as the Board may require.

- 20. Any person becoming entitled to a share in consequence of the death or insolvency of a Member shall, upon such evidence being produced as may from time to time be required by the Board, have the right either to be registered as a Member in respect of the share or, instead of being registered himself, to make such transfer of the share as the deceased or insolvent person could have made; but the Board shall in either case have the same right to decline or suspend registration as it would have in the case of a transfer of the share by the deceased or insolvent person before death or insolvency.
- 21. A person becoming entitled to a share by reason of the death or insolvency of the holder shall be entitled to the same dividends and other advantages to which he would be entitled if he was the registered holder of the share, except that he shall not before being registered as a Member in respect of the share, be entitled in respect of it to exercise any rights conferred by membership in relation to meetings of the Company.
- 22. The Company shall incur no liability or responsibility whatever in consequence of its registering or giving effect to any transfer of shares made or purporting to be made by any apparent legal owner thereof (as shown or appearing in the Register) to the persons having or claiming any equitable right, title or interest in the same shares notwithstanding that the Company may have had notice of such equitable right, title or interest or notice prohibiting registration of such transfer, and the Company shall not be bound or required to regard or attend to or give effect to any notice which may be given to it of any equitable right, title or interest, or be under any liability whatsoever for refusing or neglecting so to do, but the Company shall nevertheless be at liberty to regard and attend to such notice and give effect thereto, if the Board shall so think fit.

#### ALTERATION OF CAPITAL

- 23. The Company may from time to time increase its authorised share capital by such sum to be divided into shares of such amount as the resolution shall prescribe.
- 24. Any capital raised by the creation of new shares shall be considered part of the authorised capital and shall be subject to the provisions herein contained with reference to transfer and transmission, voting and otherwise.
- 25. The Company may by Special Resolution of the shareholders reduce its share capital in any manner and with and subject to any incident authorised and consent required by law.

- 26. Subject to the provisos appearing after clause (d) of sub-section 1 of Section 92 of the Ordinance, the Company may in General Meeting alter the conditions of its Memorandum as follows:
  - (a) consolidate and divide all and any of its share capital into shares of larger amount than its existing shares;
  - (b) subdivide shares or any of them into shares of smaller amounts than originally fixed by the Memorandum, subject nevertheless to the provisions of the Ordinance in that behalf;
  - (c) cancel shares which at the date of such General Meeting have not been taken or agreed to be taken by any person, and diminish the amount of its share capital by the amount of the shares so cancelled.

# SHAR BORBOWING POWERS

The Board may from time to time obtain any finance (as defined in the Banking Tribunals Ordinance, 1984 or otherwise) or borrow any moneys for the purposes of the Company from the Members or from any other persons, firms, companies, corporations, institutions or banks or the Directors may themselves lend moneys or provide finance to the Company.

- 28. The Board may obtain finance or borrow moneys and secure payment thereof in such manner and upon such terms and conditions in all respects as it may think fit, and in particular by the issue of bonds, perpetual or redeemable debentures, or by mortgage or charge or other security on the whole or any part of the property assets and rights of the Company (both present and future).
- 29. Any bonds, debentures or other securities issued or to be issued by the Company shall be under the control of the Board, which may issue them upon such terms and conditions and in such manner and for such consideration as shall be considered by the Board to be for the benefit of the Company.
- 30. Any bonds, debentures or other securities may be issued at a discount or premium or otherwise, and with any special privileges as to convertibility into shares, provided that such bonds, debentures or other securities with the right to be converted into shares shall not be issued without the consent of the Company in General Meeting pursuant to a recommendation by the Board of Directors.
- 31. If the Directors or any of them or any other person shall become personally liable for the payment of any sum primarily due from the Company, the Board may execute or cause to be executed any mortgage, charge or security over or affecting the whole or any part of the assets of the Company by way of indemnity to secure the Directors or persons so becoming liable as aforesaid from any loss in respect of such liability.

#### GENERAL MEETINGS

- 32. A General Meeting of the Company shall be held in accordance with the provisions of Sect ion 158 of the Ordinance once at least in every calendar year within a period of six months following the close of its financial year at such time and place as may be determined by the Board, provided that no greater interval than fifteen months shall be allowed to elapse between two such General Meetings. Such General Meetings shall be called" Annual General Meetings" and all other General Meetings of the Company shall be called "Extraordinary General Meetings".
- The Company may provide video conference facility to its Members at places other than the town 32A. in which general meeting is taking place after considering the geographical dispersal of its Members, subject to the condition that Members collectively holding ten percent (10%) or more shareholding residing at a geographical location provide their consent to participate in the general meeting through video conference at least ten (10) days prior to the date of the general meeting. The Company shall arrange video conference facility in that city subject to availability of such facility in that city. The Company shall intimate to Members regarding venue of video conference facility at least five (5) days before the date of general meeting along with complete information necessary to enable them to access such facility. The quorum as required under the Ordinance as well as Chairman of the general meeting shall be present at the place of the general meeting.

(Special Resolution passed vide 11<sup>th</sup> EGM dated 24 Aug 2016)

- Subject to the provisions of Section 159 of the Ordinance the Directors may at any time call an 33. Extraordinary General Meeting of the Company to consider any matter which requires the approval of the Company in a General Meeting and shall on the requisition of members representing not less than one-tenth of the voting power on the date of the deposit of the requisition forthwith proceed to call an Extraordinary General Meeting. المحد والم
- Twenty-one (21) clear days' notice at least of every General Meeting, specifying the date, place 34. and hour of the meeting and with a statement of the business to be transacted at the meeting, shallbe given in the manner provided by the Ordinance and these Articles to the persons entitled thereto under the Ordinance.
- 35. Where it is proposed to pass a Special Resolution, at least twenty-one (21) days' notice specifying the intention to propose the Resolution as a Special Resolution and specifying the date, place and hour of the meeting, whether Annual or Extraordinary, and the nature of the business, shall be given. Provided, however, that if all the Members entitled to attend and vote at any such meeting so agree, a resolution may be proposed and passed as a special resolution at a meeting of which less than twenty-one days' notice has been given.
- 36. In the event of an emergency affecting the business of the Company, an Extraordinary General Meeting may be convened by shorter notice than specified in the preceding Article 34 with the authorisation of the Registrar of Joint Stock Companies under the provisions of Section 159(7) of the Ordinance.
- 37. In a case in which notice of any Meeting is given to the shareholders individually, the accidental omission to give notice to any of the shareholders or the accidental no receipt thereof shall not invalidate the proceedings at any such Meeting.

#### PROCEEDING AT GENERAL MEETING

At least 4 Members entitled to vote and present in person and representing not less than 40 38. percent of the total voting power either on their own account or as proxies shall be a quorum for a General Meeting, and no business shall be transacted at any General Meeting unless the quorum requisite is present at the commencement of the business.

- 39. The Chairman of the Board shall be entitled to take the chair at every General Meeting. If there is no Chairman or if at any Meeting he is not present within fifteen minutes after the time appointed for holding such Meeting or is unwilling to act, the Chief Executive shall act as Chairman, but if he is absent or unwilling to act, then the Directors present may elect a Director as the Chairman, and if no Director is present or willing to take the Chair, the Members present shall choose one of the Members to be the Chairman.
- 40. If within half an hour after the time appointed for the holding of a General Meeting a quorum is not present, the meeting if convened on the requisition of the Members, shall be dissolved, and in every other case shall stand adjourned to the same day in the second following week at the same time and place as was appointed for holding the General Meeting, and if at such adjourned meeting the quorum be not present those members who are present and entitled to vote not being less than two shall be a quorum and they may transact the business for which the meeting was called.

41.

The Chairman of a meeting may, with the consent of the meeting, adjourn any meeting from time to time and from place to place, but no business shall be transacted at any adjourned meeting other than business left unfinished at the meeting from which the adjournment took place.

At any General Meeting a resolution put to the vote of the meeting (not being a Special Resolution) shall be decided by an affirmative vote of Members present in person or by proxy and holding or representing not less than fifty-one percent (51%) of the issued capital of the Company for the time being. Said vote shall be made on a show of hands, unless a poll is (before or on the declaration of the result of the show of hands) demanded by at least five (5) Members present in person or by proxy and having not less than one-tenth of the total voting power in respect of the resolution, and unless a poll is so demanded, a declaration by the Chairman that a resolution has been carried or lost, and an entry to that effect in the books of the proceedings of the Company, shall be conclusive evidence of the fact without further proof of the number or proportion of the votes recorded in favour of or against such resolution.

- 43. If a poll is demanded as aforesaid it shall be taken (subject to Section 168 of the Ordinance) in such manner and at such time and place as the Chairman of the Meeting directs, and either at once or after an interval or adjournment of not more than fourteen days from the day on which the poll is demanded, and the results of the poll shall be deemed to be the resolution of the meeting at which the poll was held. The demand for a poll may be withdrawn at any time by the person or persons who made the demand.
- 44. Any poll demanded on the election of a Chairman of a meeting or on any question of adjournment shall be taken at the meeting and without adjournment.

- 45. The demand for a poll shall not prevent the continuation of a meeting for the transaction of any business, other than the question on which the poll was demanded.
- 46. Minutes shall be made in books provided by the Board pursuant to Article 73 for the purpose of all resolutions and proceedings at General Meetings, and any such minutes if signed by the chairman of the meeting or of the next following meeting shall be receivable as evidence of the facts therein stated without further proof.
- 47. The books containing minutes of proceedings of general meetings of the Company shall be kept at the Office and shall, during business hours (subject to reasonable restrictions as the Board may from time to time impose but so that not less than two hours each day is allowed for inspection), be open to the inspection of any Member without charge.

#### **VOTES OF MEMBERS**

- 48. Except as to voting for the election of Directors as provided in Article 62, every Member entitled to vote and present in person or by proxy at a general meeting of the Company (whether Annual or Extraordinary) shall have one vote, and upon a poll every Member entitled to vote and present in person or by proxy, shall have one vote for every share held by him.
- 49. In the case of joint holders the vote of the senior who tenders a vote, whether in person or by proxy, shall be accepted to the exclusion of the votes of other joint holders; and for this purpose seniority shall be determined by the order in which the names stand in the Register of Members.
- 50. A corporation, foundation, charitable endowment or a company being a Member of the Company may appoint as proxy or as its representative under Section 162 of the Ordinance any person to exercise the same powers on behalf of the corporation, foundation, charitable endowment or company which he represents in general meetings as that corporation, foundation, charitable endowment or company could exercise if it were an individual Member of the Company.
- 50a. On a poll, votes may be given either personally or by proxy. Provided that no body corporate, corporation, foundation or charitable endowment shall vote by proxy as long as a resolution of its directors in accordance with Article 50 is in force.
- 51. A Member of unsound mind, or in respect of whom an order has been made by any Court having jurisdiction in lunacy, may vote, whether on a show of hands or on a poll, by his committee or other legal guardian, and any such committee or guardian may, on a poll, vote by proxy.
- 52. Every proxy shall be appointed in writing under the hand of the appointer or by an agent duly authorised under a power of attorney or if such appointer is a company,

corporation, foundation or charitable endowment under the common seal of the company, corporation, foundation or charitable endowment or the hand of its attorney who may be the appointer. A proxy holder need not be a Member.

- 53. Any proxy declared expressly on its face to be irrevocable shall not be revoked or be deemed revoked without the consent of the proxy holder, whether by personal attendance of the member at any general meeting held during the period of such proxy or by any other action on his part whatsoever during the term of such proxy if such proxy is furnished to and filed with the records of the Company, and the Company shall be bound to recognise and give effect to such proxy in accordance with the terms thereof.
- 54. No person shall act as proxy unless the instrument of his appointment duly stamped, along with the power of attorney, or other authority (if any), under which it is signed, or a notarially certified copy thereof, shall be deposited at the Office at least forty-eight (48) hours before the time for holding the meeting at which he proposes to vote.
- 54A. A Member may opt for e-voting in a general meeting of the Company under the provisions of the Companies (E-Voting) Regulations, 2016 (including any statutory modification thereof), as amended from time to time. In the case of e-voting, both Members and non-members can be appointed as proxy. The instruction to appoint execution officer and option to e-vote through intermediary shall be required to be deposited with the Company, at least ten (10) days before holding of the general meeting, at the Company's registered office address or through email. The Company will arrange for e-voting if the Company receives demand for poll from at least five (5) members or by any member having not less than one tenth of the voting power.
  - An instrument of proxy shall be in the following form, or in any other form which the Board shall approve:

"I/Wë of	in the distric	rt of	bein	g a Member (s) of FAUJI FERTILIZER				
BIN QASIM L	IMITED. Hereby a	ppoint Mr	of	as my/our proxy to vote for me us				
and on my/ our behalf at the Annual/ Extraordinary (as the case may be) General Meeting of the Company to								
	day of	and at any	y adjournment the	ereof.				
As witness my	/our hand this	day of						
~			•					

Signed by the said \_\_\_\_\_\_ in the presence of \_\_\_\_\_"

55a. An instrument of proxy in relation to e-voting shall be in the following form:

I/We, \_\_\_\_\_\_ of \_\_\_\_\_\_, being a member of \_\_\_\_\_\_, holder of \_\_\_\_\_\_ Shares(s) as per Register Folio No. \_\_\_\_\_\_ hereby opt for e-voting through Intermediary and hereby consent to the appointment of Execution Officer \_\_\_\_\_\_ as proxy and will exercise e-voting as per the Companies (E-Voting) Regulations, 2016 and hereby demand for poll for resolutions.

My secured email address is \_\_\_\_\_\_, please send login details, password and electronic signature through email.

Signature of member

(Signature should agree with the specimen signature registered with the Company) Signed in the presence of:

Signature of Witness

Signature of Witness

The proxy e-voting form shall be required to be witnessed by two persons whose names, addresses and CNIC numbers shall be mentioned on the form.

- 56. A vote given in accordance with the terms of an instrument of proxy shall be valid notwithstanding the previous death or insanity of the principal or revocation (where permissible) of the proxy or of any power of attorney or other authority under which such proxy was signed provided that no intimation in writing of the death or insanity or revocation (where permissible) shall have been received at the Office before the meeting or adjourned meeting at which the proxy was used.
- 57. No objection shall be made to the validity of any vote except at the meeting or at the poll at which such vote shall be tendered, and every vote whether given personally or by proxy not disallowed at such meeting or poll shall be deemed valid for all purposes of such meeting or poll.
- 58. If any question is raised, the chairman of the meeting shall decide on the validity of every vote tendered at such meeting in accordance with these Articles.

#### DIRECTORS

- 59. The number of Directors shall not be less than 7. 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.
- 60. The first Directors of the Company shall be the subscribers to the Memorandum, who shall hold office until the first Annual General Meeting.

#### TERMS OF OFFICE, REMOVAL AND CASUAL VACANCIES

- 61. The first Directors of the Company shall vacate office at the first Annual General Meeting of the Company.
- 62. Unless the number of candidates is not more than the number of Directors to be elected, the number of Directors as determined by the Board shall be elected to office by the Members in general meeting in the following manner, namely
  - a Member shall have such number of votes as is equal to the product of other shares held by him and the number of Directors to be elected;
  - a Member may give all his votes to a single candidate, or divide them between more than one of the candidates in such manner as he may choose;
  - the candidate who gets the highest number of votes shall be declared elected as Director and then the candidate who gets the next highest number of votes shall be so declared, and so on until the total number of Directors to be elected has been so elected.

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 days before the date of the meeting at which an election of Directors is to take place.

- 63. A Director elected under Article 62 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 under these Articles. An election of Directors in the manner prescribed by the preceding Article 62 shall be held once in every three years. A retiring Director shall be eligible for re-election.
- 64. The Company may by resolution in general meeting remove a Director appointed under Article 66 or Article 60 or elected in the manner provided for in Article 62;

Provided that a resolution for removing a Director shall not be deemed to have been passed unless the number of votes cast in favour of such a resolution is not less than:

- the minimum number of votes that were cast for the election of a Director at the immediately preceding election of Directors, if the resolution relates to removal of a Director elected in the manner provided in or under Article 62; or
- (ii) the total number of votes for the time being computed in the manner laid down in Article 62 divided by the number of Directors for the time being, if the resolution relates to removal of a Director appointed under Article 66 or Article 60.
- 65. The continuing Directors may act notwithstanding any vacancy in their body, but if the number falls below the minimum fixed by Article 59 hereof, the Directors shall not, except for the purpose of filling a vacancy in the number or convening a General Meeting, act so long as the number remains below the minimum.
- 66. The Directors may at any time appoint any person to be a Director to fill a casual vacancy in the Board. Any Director so appointed shall hold office for the remainder of the term of the Director in whose place he is appointed.

#### **REMUNERATION**

Each Director, other than the regularly paid Chief Executive and full time working Director shall be entitled to be paid as remuneration for his services a fee as decided by the Board for meeting attended by him. Each Director (including each alternate Director) shall be entitled to be reimbursed expenses incurred in consequence of his - attendance at meetings of the Directors or of Committees of Directors.

(Special Resolution passed in AGM of 27-02-2008)

68. Any Director who serves on the Committee or who devotes special attention to the business of the Company or who otherwise performs services which in the opinion of the Board, are outside the scope of the statutory duties of a Directors, may be paid such remuneration by way of salary, allowances, facilities, perquisites, etc., as the Board may determine.

(Special Resolution passed in AGM dated 23-06-1997)

69. The Board may and agree to pay pensions or other retirement, superannuation, death or disability benefits or allowances to any person in respect of any Director or former Director who may hold or may have held any executive office or employment under the Company, or any subsidiary company of the Company, and for the purpose of providing any such pensions or other benefits or allowances may contribute to any scheme or fund and make payments towards insurances or trusts in respect of such persons.

#### SHARE QUALIFICATION

70. The qualification of a Director shall be his holding shares in his own name of such value as may be prescribed by the Controller of Capital Issues save and except that a Director must be a Member (unless he represents an institution or authority which is a Member, is a whole time working Director, is a Chief Executive or is a peron representing a creditor on the Board). In the case of Directors representing interests holding shares of the requisite value, no such share qualification shall be required, provided intimation in writing as to such representation is lodged with the Company forthwith upon appointment/election of a Director.

#### **POWERS OF DIRECTORS**

71. The control of the Company shall be vested in the Board and the business of the Company shall be managed by the Board, which may pay all expenses incurred in forming and registering the Company, and may exercise all such powers of the Company as are not by the Ordinance or by these Articles required to be exercised by the Company in General Meeting, subject nevertheless to these Articles, to the provisions of the Ordinance and such regulations (not inconsistent with the aforesaid regulations or provisions) as may be prescribed by the Company in General Meeting; but no regulation made by the Company in General Meeting shall invalidate any prior act of the Board which would have been valid if the regulation had not been made.

Without prejudice to the general powers conferred above and to any other powers or authorities conferred by these presents on the Directors, it is hereby expressly declared that the Directors shall have the following powers, that is to say, power:

- (1) to pay the costs, charges and expenses, preliminary and incidental to the promotion, formation, establishment and registration of the Company and also to pay to the promoters all costs and charges they may have incurred in acquiring properties, machinery or other rights which the Company may take over from them.
- (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) 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.

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.

- b -----subject to the provisions of Section 196(3)(b) of the Ordinance, 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 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.

- (12) subject to the provisions of the Ordinance, to invest and deal with any of the moneys of the Company upon such securities (not being the shares of the Company) and in such manner as they think fit, and from time to time vary or realise such investments.
- (13) to execute in the name and on behalf of the Company in favour of any Director or other person who may incur or be about to incur personal liability for the benefit of the Company such mortgage of the Company's property (present and future) as they think fit, and any such mortgage may contain a power of sale and such other powers, covenants and provisions as shall be agreed upon.
- (14) to give to any persons employed by the Company, as remuneration for their services as such a commission on the profits of any particular business or transaction or a share in the general profits of the Company, and such commission or share of profit shall be treated as part of the working expenses of the Company.
- (15) from time to time to make, vary and repeal by-laws for the regulation of the business of the Company, its officers and servants.
- (16) to enter into all such negotiations and contracts and rescind and vary all such contracts and execute and do all such acts, deeds and things in the name and on behalf of the Company as they consider expedient for or in relation to any of the matters aforesaid or otherwise for the purposes of the Company.
- (17) to establish, maintain, support and subscribe to any charitable or public objects and any institution, society or club which may be for the benefit of the Company or its employees or may be connected with any town or place where the Company carries on business; to give pensions, gratuities, bonuses or charitable aid to any person or persons who have served the Company or to the wives, children, or dependents of such person or persons who have served the Company or to the wives, children or dependents of such person or persons that may appear to the Directors just and proper, whether any person, his widow, children or dependents have or have not a legal claim upon the Company.
- (18) subject to the provisions of Section 227 of the Ordinance, before recommending any dividends, to set aside portions of the profits of the Company to form a fund to provide for such pensions, gratuities, compensation or to create any Provident or Benefit Fund in such or any other manner as the Directors may deem fit.
- (19) to make and alter rules and regulations concerning the time and manner of payment of the contributions of the employees and the Company respectively to any funds as defined in Article 71(b)(18) above and the

accrual, employment, suspension and forfeiture of the benefits of the said funds and the application and disposal thereof, and otherwise in relation to the working and management of the said funds as the Directors shall from time to time think fit.

- (20) to make and give receipts, releases and other discharges for money payable to the Company and for the claims and demands of the Company.
- 72. The Board may exercise all the powers of the Company to borrow, obtain finances and mortgage or charge its undertaking, property and assets (both present and future) and to issue debentures and other securities, whether outright, subject to any conditions, or as collateral security for any debt, liability or obligation of the Company or of any third party.
- 73. The Board shall cause minutes to be made in books provided for the purposes:
  - (a) of the names of Directors present at each meeting of the Board and of any Committee of Directors;
  - (b) of all resolutions and proceedings at all meetings of the Company and of the Board and of Committees of Directors;
  - (c) of appointments of officers made by the Directors. Any such minutes of any meeting of the Board or a Committee of Directors or of the Company, if signed by the Chairman of such meeting, or of the next succeeding meeting, shall be receivable as evidence of the matters stated in such minutes.

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

#### **PROCEEDINGS OF DIRECTORS**

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- The Directors shall meet together at least twice a year for the dispatch of business, adjourn and otherwise regulate meetings of the Board as they think fit. The Chairman may at any time, and shall on the written requisition of the Managing Director, or of any two (2) Directors summon a meeting of the Board. At least fourteen (14) clear days' notice must be given to all Directors to summon a meeting of the Board, and such notice shall set forth the purpose or purposes for which such meeting is summoned, and such notice shall be sent by registered mail; provided that such notice shall be sent by registered mail and telexed or cabled to any Director residing outside Pakistan. With the consent in writing of all the Directors entitled to receive notice of a meeting, or to attend or vote at any such meeting, a meeting of the Board may be convened by shorter notice than specified in this Article. Any Director may waive notice in writing of the time, place and purpose of any meeting either before, at or after such meeting.
- 74A. The Directors of the Company may participate in the Board of Directors' meetings, whether in Pakistan or abroad, through tele/video conferencing. The draft minutes of the meeting shall be sent to those Director(s) who had participated in the proceedings of the meeting through tele/video conference, for his/their confirmation. Thereafter, the minutes shall be signed by the Chairman of the meeting.

(Special Resolution passed vide 11<sup>th</sup> EGM dated 24 Aug 2016)

- 75. A meeting of the Board for the time being at which a quorum is present shall be competent to exercise all or any of the authorities, powers and discretion by or under the Articles or by or under any law vested in or exercisable by the Board generally. Except as herein provided, four (4) Directors personally present shall constitute a quorum.
- 76. The Board may by unanimous consent determine that a larger number of Directors shall constitute a quorum for deliberating on specified important matters, and further that such matters shall be decided upon the affirmative votes of more than a simple majority as may be specified by the Board.
- 77. The Chairman of the Board shall, whenever present, preside as Chairman at each meeting of the Board, but if at any meeting the Chairman is present but is not willing to act or is absent beyond ten minutes after the time fixed for holding the same, the Chief Executive shall preside, but if he shall also be absent or unwilling to act, then the Directors present shall within fifteen minutes of the time fixed for the meeting choose one of their members to be chairman of such meeting.
- 78. All acts done by any meeting of the Board or of a Committee of Directors, or by any person acting as a Director or alternate Director shall, notwithstanding that it be afterwards discovered that there was some defect in the appointment of any such Directors or persons acting as aforesaid, or that they or any of them were disqualified, be as valid as if every such Director or person had been duly appointed and was qualified to act. Provided that as soon as any such defect has come to notice, the Director or other person concerned shall not exercise the right of his office till the defect has been rectified.
- 79. Board Resolutions may be approved by circular if approved by not less than 4 or such number of Directors as constitutes a majority of Directors.

#### ALTERNATE DIRECTORS

80. Any Director not permanently resident in Pakistan or any Director so resident but intending to be absent from Pakistan for a period of not less than three (3) months may appoint any person acceptable to the Board to be an Alternate Director of the Company to act for him. Every such appointment shall be in writing under the hand of the Director making the appointment. An Alternate Director so appointed shall not be entitled to appoint another Director, but shall otherwise be subject to the provisions of the Articles with regard to Directors, except that he shall require no share qualification. An Alternate Director shall be entitled to receive notice of all meetings of the Board and to attend and vote as a Director at any such meeting and generally to perform all the functions of his appointer as Director in the absence of such appointer. An Alternate Director shall ipso facto cease to be an Alternate Director if his appointer for any reason ceases to be a Director or if and when his appointer returns to Pakistan, or if the appointee is removed from office by notice in writing under the hand of the appointer.

#### **COMMITTEE OF DIRECTORS**

81. The Board may from time to time delegate all or any of their powers not required to be exercised at their meeting to a committee or committees consisting of two or more Directors, as they think fit. Any committee so formed shall conform to any regulations that may be imposed upon it by the Board and shall have such quorum as prescribed by the Board.

#### **CHIEF EXECUTIVE**

82. Subject to the provisions of the Ordinance, within fourteen (14) days from the date of an election of Directors under Article 62 or within fourteen (14) days from the date on which such office falls vacant for whatsoever reason, the Board shall appoint any person (individual) including an elected Director as the chief executive of the Company. Appointment of the Chief Executive shall be made for such period (not exceeding three years from the date of appointment) and on such terms, including remuneration (whether by way of salary, commission, participation in profits, allowances, perquisites etc. or partly in one way and partly in another), as the Board shall fix provided that so long as is so required by the Controller of Capital Issues/ the Ordinance, the remuneration of a Chief Executive shall require determination/approval by the Members in General Meeting.

The Board may, by resolution passed by not less than three-fourths of the total number of Directors for the time being or the Company may by Special Resolution remove, a Chief Executive before the expiration of his term of office hotwithstanding anything contained (if any) in these Articles or in any agreement between the Company and the Chief Executive. Upon the expiry of his period of office, a Chief Executive shall be eligible for reappointment. A Chief Executive, if he is not already a Director of the Company, shall be deemed to be its Director and be entitled to all the rights and privileges and subject to all the liabilities of the office of Director of the Company.

- 83. The Directors may entrust to and confer upon the Chief Executive any of such powers exercisable by them as are not required to be exercised by the Directors at their meetings upon such terms and conditions and with such restrictions as they may think fit, and either collaterally with or to the exclusion of their own powers, and may from time to time revoke, withdraw, alter or vary any such powers.
- 84. The office of a Director shall ipso facto be vacated if:
  - (i) he becomes ineligible to be appointed a Director on any one or more of the grounds enumerated as follows, that is to say, he:
    - (a) is a minor
    - (b) is of unsound mind

- (c) has applied to be adjudicated as an insolvent and his application is pending
- (d) is an undischarged insolvent
- (e) has been convicted by a Court of Law for an offence involving moral turpitude
- (f) has been debarred from holding such office under any provision of the Ordinance
- (g) has betrayed lack of fiduciary behavior and a declaration to this effect has been made by the Court under Section 217 of the Ordinance at any time during the preceding five years
- (h) is not a Member, provided that this clause (h) shall not apply in the case of:
  - (1) a person representing the Government or an institution or authority which is a Member
  - (2) a whole-time Director who is an employee of the Company
  - (3) a chief executive
  - (4) a person representing a creditor.
- (i) is a defaulter in repayment of loan amounting to one million rupees or more as adjudicated by a court of competent jurisdiction or tribunal, provided that this clause shall not apply to a person representing the government, a bank or financial institution.
- (ii) he absents himself from three consecutive meetings of the Directors or from all the meetings of the Directors for a continuous period of three months, whichever is the longer, without leave of absence from the Directors;
- (iii) he or any firm of which he is a partner or any private company of which he is a director:
  - (a) without the sanction of the Company in General Meeting accepts or holds any office of profit under the Company other than that of chief executive or a legal or technical adviser or a banker; or
  - (b) accepts a loan or guarantee from the Company in contravention of Section 195 (if applicable in terms of that Section)

(iv) he resigns his office by notice in writing to the Company.

The appointment of an alternate Director pursuant to Article 80 will constitute leave of absence from the Board to the Director for whom such alternate is responsible during such Director's absence.

- Subject to the provisions of Sections 196(2)(g), 214, 216 and 219 of the Ordinance, 85. the Directors shall not be disqualified from contracting with the Company as vendor, purchaser or otherwise, but in respect of any such contract or arrangement entered into by or on behalf of the Company with any company or partnership of or in which any director shall be a director or member or interested, the nature of his interest must be disclosed by him at the meeting of the Directors at which the contract or arrangement is determined, if the interest then exists, or in any other case at the meeting of the Directors after the acquisition of the interest. No Director shall vote as a Director in respect of any contract or arrangement in which he is so interested as aforesaid, and if he does so vote, his vote shall not be counted but he shall be entitled to be present at the meeting during the transaction of the business in relation to which he is precluded from voting, although he shall not be reckoned for the purposes of ascertaining whether there is a quorum of Directors present. These provisions shall not apply to any contract by or on behalf of the Company to give to Directors or any of them any security for advances or by way of indemnity against any loss which they or any of them may suffer by reason of becoming or being sureties for the Company. A general notice that any Director is a member of any specified company or/is a member of any specified firm and is to be regarded as interested in any Subsequent transaction with such firm or company shall be given for purposes of disclosure under this Article, and any such general notice shall expire at the end of the financial year in which it was given and may be renewed for a further period of one financial year by giving fresh notice in the last month of the financial year in which it would otherwise expire.
- 86. A register shall be kept by the Directors in which shall be entered particulars of all contracts or arrangements to which Article 85 applies.

#### THE SEAL

87. The Board shall provide a common seal for the purposes of the Company and for the safe security of the seal and the seal shall never be used except by the prior authority of the Board or a Committee of Directors previously empowered to give such authority by the Board, and one Director at least shall sign (in the same manner as provided for in Article 13) every instrument to which the seal is affixed; provided, nevertheless, that any instrument bearing the seal of the Company and issued for valuable consideration shall be binding on the Company notwithstanding any irregularity.

#### **DIVIDENDS AND RESERVES**

88. The Company in General Meeting may declare dividends, but no dividends shall exceed the amount recommended by the Board.

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- 89. 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.
- 90. Unless otherwise decided by a vote of the Members, the policy of the company shall be to declare as a dividend and pay over to the Members, within one hundred and eighty (180) days from the close of each financial year, all of the profits of the Company for each year in excess of any voluntary reserves as may be established. No dividends shall be paid otherwise than out of profits of the year, or any other undistributed profits from prior years.
- 91. 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.
- 92. If several persons are registered as joint holders of any share, any one of them may give effectual receipts for any dividends payable on the share.
- 93. No dividend shall bear interest against the Company. The dividend shall be paid within the period laid down in the Ordinance.
- 94. The Directors may carry forward any profits which they may think prudent not to distribute, without setting then aside as a reserve.
- 95. Any dividend may be paid by cheque, sent through the post to the registered address of the Member or person entitled thereto, or in the case of joint holders to any one of such joint holders at his registered address, or to such person and at such address as the Member or person entitled or such joint holders, as the case may be, may direct. Every such cheque shall be made payable to the order of the person to whom it is sent, or to the order of such other person as the Member or person entitled or such joint holders, as the case may be, may direct.
- 96. Unclaimed dividends may be invested or otherwise used by the Board for the benefit of the Company until claimed.

#### CAPITALIZATION

97. 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.

#### ACCOUNTS

98. The Board shall cause to be kept proper books of account.



The books of account shall be kept at the Office or at such other place as the Board shall think fit and shall be open to inspection by the Directors during business hours.

The Board shall form time to time determine whether and to what extent and at what times and places and under what conditions or regulations the accounts and books or papers of the Company or any of them shall be open to inspection of Members, and no Member (not being a Director) shall have any right of inspecting any account and books or papers of the Company except as conferred by law or authorized by the Board or by the Company in General Meeting.

- 101. Within not less than eighteen (18) months of the incorporation of the Company, and subsequently once at least in every year, the Directors shall cause to be prepared and lay before the Company in General Meeting a balance sheet and profit and loss account, both made up in accordance with the Ordinance and to a date not more than six (6) months before the date of the Meeting. Every such balance sheet shall be accompanied by an Auditor's certificate and the Directors' Report in accordance with provisions of the Ordinance in that behalf.
- 102. A copy of the report of the Directors and of the balance sheet (including a report of the auditors and every document required by law to be annexed thereto) and of the profit and loss account shall be sent to all Members along with the notice convening the general Meeting before which the same are required to be laid at least twenty-one (21) days preceding the Meeting.
- 102A. The Company may, after obtaining prior written consent from members, circulate notices of general meeting and the annual balance sheet and profit and loss account, auditors' report and directors' report (annual audited accounts) to its members through email. Further, subject to the consent of the Members obtained in general meeting, circulate the annual balance sheet and profit and loss account, auditors' report and directors' report (annual audited accounts) to its Members through CD/DVD/USB at their registered addresses. However, if a Member prefers to receive hard copies for all the future annual audited accounts then such preference of the Member shall be given to the Company in writing and thereafter the Company shall provide hard copies of all the future annual audited accounts to such Member.

(Special Resolution passed vide 11th EGM dated 24 Aug 2016)

103. The Director shall in all respects comply with the provisions of Sections 230 to 247 of the Ordinance, as applicable, in regard to the accounts of the Company.

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#### AUDIT

104. Auditors of international standing and reputation shall be appointed and their duties regulated in accordance with Sections 252 to 260 of the Ordinance.

#### NOTICES

- 105. A notice may be given by the Company to any Member or Director either personally or by sending it to him by first class mail, postage prepaid, or by telegram, telex, cable or radiogram as specified below, at his registered address, or if he has no registered address in Pakistan, to the address supplied to the Company for the giving of notices to him.
- 106. Where a notice is delivered personally, the recipient shall sign a receipt in such form as the Board of Directors shall determine.
- 107. Where a notice is sent by post, service of the notice shall be deemed to be made by properly addressing, prepaying and posting a letter containing the notice and unless the contrary is proved, to have been effected at the time at which the letter would be delivered in the ordinary course of post. If a Member or Director has no registered address in Pakistan, and has not supplied to the Company an address within Pakistan for the giving of notice to him, a notice addressed to him or the shareholders generally and advertised in a newspaper circulating in the Province in which the Office is situated shall be deemed to be duly given to him on the day on which the advertisement appears, unless a notice shall be sent to him by registered or certified Air Mail and confirmed by telex or cable or facsimile pursuant to Article 108.
- 108. Where a notice is sent by telegraph, telex, cable or facsimile, the following procedure shall apply:
  - (a) Where notice is sent by telex, notice will be deemed to have been received by the recipient when the recipient's telex answers back an acknowledgement.
  - (b) Where notice is sent by cable, telegram or facsimile, notice will be deemed to have been received when the recipient acknowledges receipt by return cable, telegram or facsimile.
- 109. A notice may be given by the Company to the joint holders of a share by giving the notice to the joint holder named first in the Register in respect of the share.

- 110. A notice may be given by the Company to the persons entitled to a share in consequence of the death or insolvency of a Member by sending it through the post in a prepaid letter addressed to them by name, or by the title of the representative of the deceased, or assignee of the insolvent, or by any like description, at the address (if any) in Pakistan supplied for the purpose by the persons claiming to be so entitled, or (until such an address has been supplied) by giving the notice in any manner in which the same might have been given if the death or insolvency had not occurred.
- 111. Notice of every general meeting shall be given in the same manner hereinbefore authorised to (a) every Member of the Company, (b) every person entitled to a share in consequence of the death or insolvency of a Member, who but for his death or insolvency would be entitled to a share in consequence of the death or insolvency would be entitled to receive notice of the meeting, and (c) to the auditors of the Company for the time being.

#### SECRECY

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Every Director, Chairman, Managing Director, Chief Executive, General Manager, Manager, Auditor, Trustee, member of a committee, officer, servant, agent, accountant or other person employed in the business of the Company shall, if so required by the Board before entering upon his duties, sign a declaration in the form approved by the Board pledging himself to observe strict secrecy representing all transactions of the Company with the customers and the state of accounts with individuals and in matters relating thereto, and shall by declaration pledge himself not to reveal any of the matters which may come to his knowledge in the discharge of his duties except when required to do so by the Board, or by any General Meeting, or by a Court of Law, and except so far as may be necessary in order to comply with any provisions in these presents contained.

113. No member or other person (not being a Director) shall he entitled to enter the property of the Company, or to inspect any account or books of account or document of the Company or properties of the Company, without permission of the Board and to require disclosure of any information respecting any detail of the Company's trading, or any matter which is or may be in the nature of a trade secret, mystery of trade, or secret to the conduct of the business of the Company and which in the opinion of the Board will be inexpedient in the interest of the Company to communicate.

#### WINDING UP

114. (1) If the Company shall be wound up (whether voluntarily or otherwise) the Liquidators 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.

(2) For the purposes aforesaid, the Liquidators 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.

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(3) The Liquidators 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 Liquidators, 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

- 115. 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 Adviser, 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 judgement 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.
- 116. 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 person with whom any money, securities or effects shall be deposited, or for any loss occasioned by any error of judgement 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 wilful act, neglect, default or dishonesty.

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

	Names, Addresses & Description of each Subscriber	Number of Shares taken by each Subscriber	Signature of the Subscriber	Name, Address & Description of Witness to Signature	Occupation
]	Lt. Gen. Imtiaz Waraich (Retd). Fauji Foundation Harley Street, Rwp. S/o Ch. Inayat Ullah Waraich (Pakistani)	1(One)	Sd/-		Service
2.	Maj. Gen. AKM Khalil Ur Rahman (Retd). Fauji Foundation Harley Street, Rwp. S/o Abdul Hakim Baig (Pakistani)	l(One)	Sd/-		Service
3.	Mr. Iltifat Rasul Khan. Fauji Foundation Harley Street, Rwp. S/o Niamat Rasul Khan (Pakistani)	1(One)	Sđ/-		Service
4.	Brig Mushtaq Ali Khan (Retd) Fauji Foundation Harley Street, Rwp. S/o Brig Qurban Ali Khan (Pakistani)	l(One)	Sd/-	Sd/- Syed Bashir-ud-	Service
5.	Brig M. Ahsan Bhatti (Retd). Fauji Foundation Harley Street, Rwp. S/o Rai Khuda Baksh Bhatti (Pakistani)	l(One)	Sd/-	Din Ahmad. Advocate, Harley Street, Rawalpindi	Service
6.	Brig Muneeb-ur-Rehman Farooqui (Retd). Fauji Foundation Harley Street, Rwp. S/o Sheikh Hussain Farooqui (Pakistani)	l(One)	Sd/-	S/o Late Mir Syfuddin (Pakistani)	Service
7.	Mr. Adnan Ahmad Ali 67, Street No. 23 DHS Phase V, Karachi S/o Ch. Ahmad Ali (Pakistani)	1(One)	Sd/-	Start Start	Service



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#### EXPERIENCE IN ELECTRICITY INDUSTRY

FFBL has its own 118 MW coal power plant located at its site that supplies electricity and steam to its fertilizer complex as well as to K-Electric. FPCL (FFBL Power Company Limited) is first of its kind power plant in Pakistan's power industry that has been completed through Non-EPC basis. The complete project management and execution has been carried out successfully by FPCL own team of engineers and professionals. FPCL has another distinct feature in the sense that it is generating power at two different frequencies i.e. 50 Hz and 60 Hz, to meet its clients power and operational requirements as under:

- K-Electric 50 Hz
- Fauji Fertilizer Bin Qasim Limited (FFBL) 60 Hz

FPCL plant is based on state of the art components including 02 x 250 Metric Tons Per Hour (MTPH), Circulating Fluidized Bed (CFB) boilers from Hyundai Heavy Industries (HHI) – South Korea. CFB Technology has following prominent features:

- 1. Environment friendly with low NOx and Sox emissions.
- 2. High thermal efficiency.
- 3. Fuel flexibility i.e. can burn wide range of coal qualities from imported to local.

FPCL Power Block has the capability to generate power on both 50 & 60 HZ and is based on Steam Turbine Generators (STG) supplied by General Electric (GE) – Europe. Plant operation is controlled thru latest Distributed Control System (DCS) and Safety systems.

Seamless power supply to K-Electric network is ensured thru 132 KV Grid station based on latest technology of Alstom – Europe. Complete Operation & Maintenance (O&M) is performed by FFBL's own team of engineers.

In addition to the 118 MW MW plant, FFBL operates state of the art Utilities unit to provide utilities like steam, water, nitrogen, instrument and service air to Ammonia, Urea, DAP & Product Handling & Shipment and off site facilities.

This unit is mainly consists of two (02) Gas Turbines supplied by M/s General Electric Mark 5 design, each having capacity of 26.3 MW ISO rating, one (01) Auxiliary boilers supplied by M/s Zurn having capacity of 105 tons/hr, Heat Recovery Steam Generator having capacity of 85 tons/hr by M/s Zurn.

Raw Water Reservoir with 90,000 meter cube storage capacity, 03 Demin water trains supplied by M/s Ecodyne and its Reservoir with 16,600 meter cube storage capacity, 03 Instrument Air Compressors by M/s Atlas Capco, Cooling Tower by M/s GEA USA, Nitrogen

Annexure – VII	Company Profile & Power Sector Experience	Page 1 of 4



storage by M/s Airliqide and 02 X 700 RT Air Conditioning Units by M/s York. All the equipment is installed outdoor while its operations are controlled from Utilities Control Room (UCR).

# FAUJI GROUP OTHER ELECTRICITY BUSINESS

#### 1. FAUJI KABIRWALA POWER COMPANY LTD (FKPCL)

Fauji Kabirwala Power Plant is a 157 MW Combined Cycle Power Plant located near Kabirwala, District Khanewal. Fauji Foundation set up this US \$ 170 million plant in collaboration Messrs. El Paso Energy International, USA (now replaced by Messrs. Pendekar Kabirwala Power Company of Malaysia) with debt equity ratio of 75:25. ADB and EDC of Canada have financed a major portion of the debt

The project commenced commercial operations on 21 Oct 1999 and ever since is supplying power to the National Grid. Subject to availability of gas, expansion in its capacity is also under consideration

The plant is being operated and maintained by own engineers and staff. During the last ten years of operation, it has achieved the highest rate of availability. Based on its performance, the plant has been declared the world's Best Combined Cycle Plant by Siemens / Westinghouse and awarded New Combined Cycle Power Plant of the Year Award for the Years 2000, 2001, 2002 and 2004.

#### 2. FOUNDATION POWER COMPANY DAHARKI LTD (FPCDL)

The Fauji Foundation had registered with PPIB, for setting up a 178MW Gas Based Power Plant in Daharki (Sindh) in April 2004. Foundation Power Company Daharki Limited (FPCDL) was thus incorporated in November 2005. The Foundation Stone laying ceremony was presided over by the then President of the Islamic Republic of Pakistan, General Pervez Musharraf, NI(M), TBt, on 24 May 2007 at Daharki. Construction work started in October 2007 under M/s Doosan Heavy Industries and Construction Company of South Korea. The project was financed by a consortium of 14 local banks, led by Askari Commercial Bank Limited. The project cost was approximately US\$ 217 million.

The installed Combined Cycle Power Plant (Gas Turbine of GE, USA & Steam Turbine of Fuji, Japan) has a gross output of 202 MW. It employs modern technology under strict international and environment friendly standards. The fuel source, from Mari Deep Well No. 6, has low BTU gas, which is otherwise unsuitable for domestic and industrial uses. By the Grace of Almighty Allah, the plant is fully operational since May 2011 and contributing 178MW electricity to the National Grid at comparatively lower cost than other IPPs. This output is sufficient to illuminate 250,000 urban homes, or meet the needs of 70 medium sized industrial units, or 1,500 small sized villages.



FPCDL entered into an agreement with KEPCO KPS Plant Services and Engineering Company Limited of South Korea for Operation and Maintenance.

The registered office of the Company is located at Fauji Towers, 68-Tipu Road, Chaklala, Rawalpindi.

# 3. FOUNDATION WIND ENERGY - I LIMITED

In light of its vision of diversification, Fauji Foundation initiated acquisition process of Beacon Energy Limited (BEL), 50MW wind energy project. After successful due diligence process, Fauji Foundation, in a private deal, acquired 100% shareholding in Beacon Energy Limited.

Beacon Energy Limited (BEL) was set up by the Beacon house Group (Kasuri family) for developing a 50 MW wind energy project. In 2005 BEL was awarded a development license by the AEDB for the construction and operation of a 50 MW wind farm near Karachi.

After acquisition, name of the company has been changed to Foundation Wind Energy-I Limited (FWEL-I).

FWEL-I project site is located at Khutti Kun New Island in the Taluka Mirpur Sakro of Thatta District. Project lies within the wind corridor identified by AEDB for commercial wind projects. The Government of Sindh, through AEDB, has allocated Land to the project. The total site land area is 1210 acres.

Fauji Fertilizer Company limited (Subsidiary of Fauji Foundation) is also developing a 50 MW Project in Jhampir, District Thatta Sindh.

The total investment required for FWEL-I is around US \$ 128 million with debt equity ratio of 75%:25%. The Lending for the project is arranged from foreign and local banks with a distribution of 66 % & 34% respectively. Asian Development Bank and Islamic Development Banks are the Lead Foreign Lenders while National Bank of Pakistanis the Lead Local Lender. The equity financing for the project is being arranged by Fauji Foundation (30%), Fauji Fertilizer Bin Qasim (35%) and Cap Asia (A Malaysian Private Equity Firm 35%).

The Engineering, Procurement and Construction (EPC) Contract of FWEL-I was successfully signed off on August 23, 2011 with M/s Nordex Germany (Lead) & M/s Descon Engineering Limited consortium. The EPC cost is USD 111 million.FWEL-I is to install 20 Nordex (Model N-100) wind turbine generators. Each turbine has an individual capacity of generating 2.5 MW. The electricity generated will be sold to the Central Power Purchasing Agency (CPPA) at 132 KVA National Transmission and Despatch Company (NTDC) Thatta grid station.

The Onshore Contractor, M/s Descon Engineering Limited and M/s Descon Integrated Projects Limited have been mobilized on site, since December 2011, for executing the preliminary works for project development. FWEL-I is targeting to achieve financial close



by September 2012. Main works related to construction and erection of wind turbines are to commence right after financial close and will be completed within 15 months' time. The Commercial Operation of FWEL-I is expected in 4th Quarter of 2013. FWEL-I is also working with Alternative Energy Development Board (AEDB) for seeking carbon credit benefits.

#### 4. FOUNDATION WIND ENERGY - II (PRIVATE) LIMITED

FWEL-II project site is located at KhuttiKun New Island in the Taluka Mirpur Sakro of Thatta District. Project lies within the wind corridor identified by AEDB for commercial wind projects. The Government of Sindh, through AEDB, has allocated Land to the project. The total site land area is 1656 acres.

Fauji Fertilizer Company limited (Subsidiary of Fauji Foundation) is also developing a 50 MW Project in Jhimpir, District Thatta Sindh.

The total investment required for FWEL-II is around US \$ 127 million with debt equity ratio of 75 %: 25 %. The Lending for the project is arranged from foreign and local banks with a distribution of 66 % & 34% respectively. Asian Development Bank and Islamic Development Banks are the Lead Foreign Lenders while National Bank of Pakistan is the Lead Local Lender. The equity financing for the project is being arranged by Fauji Foundation (20%), Fauji Fertilizer Bin Qasim (35%), Cap Asia (A Malaysian Private Equity Firm 25%) and Tapal Group (20%).

The Engineering, Procurement and Construction (EPC) Contract of FWEL-II was successfully signed off on August 23, 2011 with M/s Nordex Germany (Lead) & M/s Descon Engineering Limited consortium. The EPC cost is USD 110 million. The electricity generated will be sold to the Central Power Purchasing Agency (CPPA) at 132 KVA National Transmission and Dispatch Company (NTDC) Thatta grid station.

Public Hearing for Tariff determination with National Electric Power Regulatory Authority (NEPRA) was held on Oct 18, 2011. FWEL-II was awarded Tariff by NEPRA on March 16, 2012.

The Onshore Contractor, M/s Descon Engineering Limited and M/s Descon Integrated Projects Limited have been mobilized on site, since December 2011, for executing the preliminary works for project development. FWEL-II is targeting to achieve financial close by September 2012. Main works related to construction and erection of wind turbines are to commence right after financial close and will be completed within 15 months' time. The Commercial Operation of FWEL-II is expected in 4thQuarter of 2013. FWEL-II is also working with Alternative Energy Development Board (AEDB) for seeking carbon credit benefits.

### A. PLANT CHARACTERISTICS & TECHNOLOGICAL CONFIGURATION

The Plant configuration consists of 2 x 26.3 MW Gas Turbines (ISO rating) and 01 Steam Turbine Generator of up-to 24 MW installed rating at 60 Hz. The 2 x 26.3 MW Gas Turbines are of GE make (single shaft, 2 stage turbine) while the condensing Steam Turbine is in the procurement stage. Following are the detailed specifications for the Gas Turbines:

#### 26.3 MW Gas Turbine and System

G	asi Turibine
ISO Rating	26.3 MW
Туре	Heavy Duty
Configuration	Single Shaft / 2 Bearing
Operating Speed (RPM)	5,094

Auxiliary S	y xous	
Accessory Gear:		
Manufacturer	Philadelphia Gear or Equal	
Model	GE-51 PA	
Configuration	Multi—Drive Shaft	
Speed (RPM)		
Main L.O. Pump	1415 (output)	
Main Hydraulic Pump	1415 (output)	
Input Shaft	5100 (input)	
Fuel:		
	Natural Gas (Customer's Fuel	
Delesson	Gas in compliance with GEI-	
Primary	41040E) — see Fuel	
	Specifications	
Pressure Req'd:		
Max. / Min. (PSIG	275/200	
Fuel Gas Temperature (Min.)	>50F° of Superheat	
Lubrication Oil:		
Configuration	Common—Turbine/Generator	
Oil Type	Mineral Oil (GEK-32568)	
Initial Charge, (Gal.)	2000	
Reservoir Capacity, (Gal.)	1700	
Retention Time, (Min.)	7	
Bearing Supply Pressure (PSIG)	25	
Bearing Supply Temperature (°F)	120-130	
Main Oil Pump	Positive Displacement	
Driver	Accessory Gear Driven	
Auxiliary Oil Pump	Centrifugal	
Driver	AC Motor	
Emergency Oil Pump	Centrifugal	

Driver	DC Motor
ube Filters	Duplex, p. nom.
ube Coolers	Duplex, Shell & Tube—Water
	Cooled
Cooling Water:	
Iominal Heat Duty* (BTU/Min.)	49,000
Supply Temperature, Max. (°F)	135
Supply Pressure, (PSIG)	75
Expected System Pressure Drop (PSI)	25
Nom. Water Flow. (GPM)	450
tarting System:	
Configuration	Diesel Engine
Mfg./Model	Cummings KT-1150
Rated HP/Speed (RPM)	465 HP/2100 RPM
tart Time to Base Load:	
Iormal (Min.)	13.17 Mins
ast (Min.)	9.67
Vater Injection: (For NOx Emissio	ns Control)
Required Pressure, Max./Min. PSIG)	40/1
Max. Temperature, (°F)	150
/lin. Temperature. (°F)	40
nlet Air/Exhaust:	
	Donaldson. Farr, Pneumafil or
Air Filter Mfg.	Equal
Гуре	Self—Cleaning
Normal AP, in. H2O	2
Max. AP, Dirty. in H2O	4
nlet Duct/Silencer	
Material	3/16" Carbon Steel with
IVIALCI Idi	Galvanized Liner
Pressure Loss, in H2O	2
ire Protection:	
Гуре	High Pressure CO2
Detectors/Mfg.	Temperature Sensors/Fenwal

Manufacturer Philadelphia G		r or Equal
Model	664B	
Configuration	Vertical Offset	5
Speed Ratio (RPM)	5094 / 3000	<u> </u>
Maximum HP Rating	68,390	112 M
Service Factor	1.1	

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Genencitor			
Synchronous Generator:			
Туре	Open Ventilated		
Model	5A4		
KVA Output @ .90 PF	36600		
KV Terminal Voltage	13.8		
Rated Current (AMPS)	1531		
Cooling System	Air Cooled		
Filtration	Self—Cleaning		
Insulation Class	F/F		
Short Circuit Ratio	0.45		
Excitation System:			
Туре	Brushless		
Rated Output. (KW)	98		
Rated Voltage	125		

Control Panel:			
Manufacturer	General Electric		
Model	Mark V Speedtronic		
	Triple Module Redundant		
Туре	(TMR). Microprocessor—		
	Based		
Display	Color Graphics (CRT)		
	Keyboard and/or Cursor		
Operator Input	Positioning Device (CPD)		
Control Panel Supply	125 VDC		
Auxiliary Power Supply	120 VAC		
Enclosure	NEMA Class I		

The auxiliary consumption of the Turbines is expected to be as follows:

Gas Turbines:	0.30 MW
Steam Turbine:	1.63 MW
Total:	1.93 MW

This is the auxiliary consumption for turbines (GT & ST) only. The auxiliary consumption of a power plant includes all the power consumption of the following:

- Heat Recovery Steam Generator
- All auxiliary equipment, like cooling water system, demineralization plant, compressed / service air system etc.
- Offices, accommodation area, plant lighting, etc.

As this is a special built power plant @ 60 Hz, there is no separate auxiliary consumption is available, however the overall power of consumption of FFBL is around 22 MW.

Process Flow Diagram (PFD) for Gas Turbine is attached as Annex XVI.

# B. COOLING WATER SOURCE

The cooling water system will utilize Canal Water with five (05) Cycles of concentration of cooling water. The counter flow induced draft cooling towers are designed by M/s GEA – USA, and installed at Utilities Unit to remove non-recoverable heat generated during production of Ammonia & Urea vis-à-vis to cool process fluids through cooling water. Cooling Water system consists of total 10 Cells.

Side stream pressure filtration system has also been installed to remove suspended solids from circulating cooling water. The specifications of cooling water system are given below:

Manufacturer	M/s GEA Thermal – Dynamic Towers, Inc. USA	
Tower Type	Induced Draft Counter Current Concrete Tower Up-spray	
Distribution Type		
No. of Cooling Tower Cells	04	06
Capacity of each Cell	4,583 m <sup>3</sup> /hr	3,859 m³/hr



# 76.6 MW POWER GENERATION FACILITY FOR POWER EXPORT

# **FEASIBILITY REPORT**



08 APRIL 2021

FAUJI FERTILIZER BIN QASIM LIMITED

FFBL Tower Plot No C1/C2, Jinnah Boulevard, Sector B, DHA Phase II, Islamabad, Islamabad Capital Territory 44000



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# A. BACKGROUND

Fauji Fertilizer Bin Qasim Limited (FFBL) is a Public Limited Company incorporated under Companies Ordinance 1984. It has a modern Granular Urea and Di-Ammonium Phosphate (DAP) fertilizers manufacturing complex, built at a cost of US\$ 468 Million and located in Eastern Zone of Bin Qasim, Karachi, with Head Office at DHA-II, Islamabad. Company is listed on Pakistan Stock Exchange (PSX) since May 14, 1996 and the trade symbol of the company is "FFBL". https://www.ffbl.com/

Its ammonia plant was relocated from Lake Charles, USA which was designed and operated on 60 Hz power system, (whereas Pakistan National Grid operates at 50 Hz). <u>In lieu of this</u> <u>FFBL has to established its own power generation plant i.e. 02 Gas Turbines 52.6 MW @</u> <u>60 Hz</u>, to meet the requirement for Urea and DAP as well (both new Urea and DAP Power and Control Systems were also designed on 60Hz).

At present FFBL is considering to expand its business (The Project) as under:

- 1. Expansion in existing DAP plant to meet the growing fertilizer demand of the country
- 2. M/s Risesince Steel Mill, RSL (Chinese Group) Foreign Direct Investment (FDI)

Note: RSL will establish Steel Mill within FFBL premises and their machinery is designed on 60 Hz power system with total power requirement of  $\sim$  60 MW (FFBL will meet their power requirement).

To meet the requirement of above business, FFBL needs to increase the capacity of its power plant from 52.6 MW @ 60 Hz to 76.6 MW @ 60 Hz. The existing Gas Turbines (@ 52.6 MW) will be operating on RLNG fuel whereas, the increase in generating capacity will be achieved by installing a new 24 MW Steam Turbine Generator.

This Project will also serve the Government of Pakistan vision for creating jobs especially for youth of the country, open additional avenues for joint ventures along with strengthening the economic partnership between Pakistan and China.

# B. SITE

FFBL is located in the Eastern Industrial Zone, Bin Qasim, Karachi. Given the following characteristics, the site meets the essential criteria for The Project:

- 1. Infrastructure for supply of Natural Gas / RLNG from SSGC
- 2. Land availability for The Project
- 3. Availability of water and other utilities
- 4. Port vicinity for import of equipment and spares
- 5. Road infrastructure
- 6. Low cost of site development and suitable topographic-geological conditions
- 7. Minimum socio-economic and environment implications of The Project

The site co-ordinates are 67° 25' longitudes east, 24° 50' latitude north, about 45 km east / south east from Karachi.



#### C. FUEL

The Project expects to utilize approximately 15 MMSCFD of RLNG. RLNG will be supplied thru SSGC (Sui Southern Gas Company Ltd) network to the power generation facility. The heating value of RLNG will be 1,000 to 1090 MMBTU / MSCF.

RLNG is the only sources of fuel for Gas Turbines and no alternative fuel can be utilized to generate electricity from the Gas Turbines.

# D. INTERCONNECTION WITH GRID & CONTROL METERING / INSTRUMENTATON

The Project is designed on 60Hz frequency. Due to difference in National Grid and Project power frequency i.e. 50 Hz vs 60 Hz, therefore interconnection between National/KE Grid and FFBL/Project Grid is not possible. Accordingly, FFBL will directly supply power to RSL at 13.8kV / 60 Hz with Power Factor of 0.9 lagging, within FFBL existing boundary limits.

As **The Project** is not connected with the National Grid / KE-Grid, therefore no Grid Interconnection Studies (Load Flow, Short Circuit & Transient Stability) are required to be carried out.

Metering will be at 0.2 S accuracy Class. Instrumentation will be of any reputable brand and there will be minimum Over current, Ground fault, Over & Under Voltage, Current unbalance protections provided on power dispatch Feeders to RSL.

#### E. ENVIRONMENTAL AND SOCIAL IMPACT

FFBL complex including Ammonia, Urea, DAP and Utilities plants started its commercial operations in Year 2000. Since FFBL operates forty (40) Steam Turbines, three (03) Gas Turbines and eight (08) Boilers in its complex.

Accordingly, the addition of one (01) Steam Turbine will have no impact on the environment as there are no emissions from Steam Turbine. EIA study of the complex was carried out by M/s Hagler Bailly. The Gas Turbines that will be used for power generation were already part of the Complex and covered in EIA scope.

The SEQs (Sindh Environment Quality Standards) emission value limits for Gas Turbines are given below:

		Panary Ruch	Aligneilve Fuel
i.	CO2	-	
ii.	СО	800 mg/ Nm <sup>3</sup>	
iii.	SOx	400 mg/ Nm <sup>3</sup>	<b>N/A</b>
iv.	NOx	400 mg/ Nm <sup>3</sup>	
<b>I</b>	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		



Following is recorded yearly average emissions values of Gas Turbines from Year 2009 to Year 2017, which are within SEQs limits:

	Year		2009	2010	2011	2012	2013	2014	2015	2016	2017
	iese	Unit 1					velues				
	CO2	%	2.05	2.03	2.1	1.9	2	1.94	1.98	1.93	1.94
Gas	со		<100	<100	<100	<100	<100	<100	<100	<100	<100
Turbine 1	SOx	mg/Nm <sup>3</sup>	<50	<50	<50	<50	<50	<50	<50	<50	<50
	NOx		<200	<200	<200	<200	<200	<200	<200	<200	<200
	CO2	%	2.03	2.09	2.1	1.9	1.8	2.04	2	1.97	1.93
Gas	со		<100	<100	<100	<100	<100	<100	<100	<100	<100
Turbine 2	SOx	mg/Nm <sup>3</sup>	<50	<50	<50	<50	<50	<50	<50	<50	<50
	NOx		<200	<200	<200	<200	<200	<200	<200	<200	<200

Note: The Gas Turbines are not in operation since 2018, therefore data from 2018 onwards is not available.

The Project entails operation and maintenance of already installed Gas Turbine Generators (GTs) and installation, operation and maintenance of a new Steam Turbine Generator (STG) along with new DAP Plant. This will have positive impact on the socio-economic environment through direct and in-direct employment generation and increased business opportunities. The expansion of the existing FFBL fertilizer plant operation along-with Risesince Steel Pvt. Ltd. will be beneficial to the country as a whole and will enhance fertilizer and steel production capacities of Pakistan.

Environmental sensitivities and impacts, as well as the associated mitigation plan has been addressed in the EIA. Further, FFBL has ensured that The Project staff is adequately trained in Health, Safety and Environment sensitivities and operational management procedures, so that all levels of staff effectively contribute to impact prevention and mitigation at all times.

Fauji Group has a number of on-going community development programs with an objective of a literate and functional community, skilled and employed youth, empowered women, health and hygiene awareness and self-reliance through targeting following areas:

- Social Mobilization
- Health
- Education
- Environmental Sustainability
- Economic Development

# F. PROJECT DUE DILIGENCE

The Project is expected to generate significant local job opportunities both during the construction phase and operation phase. It is also expected that part of the available unskilled jobs will be provided to the locals belonging to the vicinity of Project area (as the



latter do not have the required education or skill for the skilled or semi-skilled jobs for The Project).

The Project will generate electricity @ 60Hz, which is essential for the construction of Risesince Steel Mill. The GoP concessions for Foreign Direct Investment (FDI) will allow steel production at highly competitive rate and will boost Pakistan's economy. Furthermore, The Project will open additional avenues for joint ventures and strengthen the economic partnership between Pakistan and China.

#### G. PLANT CHARACTERISTICS & TECHNOLOGICAL CONFIGURATION

The Plant configuration consists of 02 x 26.3 MW Gas Turbines (ISO rating) and 01 Steam Turbine Generator of up-to 24 MW installed rating at 60 Hz. The 02 x 26.3 MW Gas Turbines are of GE make (single shaft, 02 stage turbine) while the condensing Steam Turbine is in the procurement stage. Following are the detailed specifications for the Gas Turbines:

#### 26.3 MW Gas Turbine and System

	Gas Turdiae
ISO Rating	26.3 MW
Туре	Heavy Duty
Configuration	Single Shaft / 2 Bearing
Operating Speed (RPM)	5,094

n en feren i sen en e	Auxillery Systems		
Accessory Gear:			
Manufacturer	Philadelphia Gear or Equal		
Model	GE-51 PA		
Configuration	Multi—Drive Shaft		
Speed (RPM)			
Main L.O. Pump	1415 (output)		
Main Hydraulic Pump	1415 (output)		
Input Shaft	5100 (input)		
Fuel:			
	Natural Gas (Customer's Fuel Gas in compliance		
Primary	with GEI-41040E) — see Fuel Specifications		
Pressure Req'd:			
Max. / Min. (PSIG	275 / 200		
Fuel Gas Temperature (Min.)	>50F° of Superheat		
Lubrication Oil:			
Configuration	Common—Turbine/Generator		
Oil Type	Mineral Oil (GEK-32568)		
Initial Charge, (Gal.)	2000		
Reservoir Capacity, (Gal.)	1700		
Retention Time, (Min.)	7		
Bearing Supply Pressure (PSIG)	25		



Bearing Supply Temperature (°F)	120-130		
Main Oil Pump	Positive Displacement		
Driver	Accessory Gear Driven		
Auxiliary Oil Pump	Centrifugal		
Driver	AC Motor		
Emergency Oil Pump	Centrifugal		
Driver	DC Motor		
Lube Filters	Duplex, p. nom.		
Lube Coolers	Duplex, Shell & Tube—Water Cooled		
Cooling Water:			
Nominal Heat Duty* (BTU/Min.)	49,000		
Supply Temperature, Max. (°F)	135		
Supply Pressure, (PSIG)	75		
Expected System Pressure Drop (PSI)	25		
Nom. Water Flow. (GPM)	450		
Starting System:			
Configuration	Diesel Engine		
Mfg./Model	Cummings KT-1150		
Rated HP/Speed (RPM)	465 HP/2100 RPM		
Start Time to Base Load:			
Normal (Min.)	13.17 Mins		
Fast (Min.)	9.67		
Water Injection: (For NOx Emissions C	Control)		
Required Pressure, Max./Min. (PSIG)	40/1		
Max. Temperature, (°F)	150		
Min. Temperature. (°F)	40		
Inlet Air/Exhaust:			
Air Filter Mfg.	Donaldson. Farr, Pneumafil or Equal		
Туре	Self—Cleaning		
Normal AP, in. H2O	2		
Max. AP, Dirty. in H2O	4		
Inlet Duct/Silencer	-		
Material	3/16" Carbon Steel with Galvanized Liner		
Pressure Loss, in H2O	2		
Fire Protection:			
Туре	High Pressure CO2		
Detectors/Mfg.	Temperature Sensors/Fenwal		

Reduction Gear:			
Manufacturer	Philadelphia Gear or Ec	jual 🥖	
Model	664B	24	
Configuration	Vertical Offset		



Speed Ratio (RPM)	5094 / 3000	
Maximum HP Rating	68,390	
Service Factor	1.1	

	Generator
Synchronous Generator:	
Туре	Open Ventilated
Model	5A4
KVA Output @ .90 PF	36600
KV Terminal Voltage	13.8
Rated Current (AMPS)	1531
Cooling System	Air Cooled
Filtration	Self—Cleaning
Insulation Class	F/F
Short Circuit Ratio	0.45
Excitation System:	
Туре	Brushless
Rated Output. (KW)	98
Rated Voltage	125

	Controls
Control Panel:	
Manufacturer	General Electric
Model	Mark V Speedtronic
Туре	Triple Module Redundant (TMR). Microprocessor - Based
Display	Color Graphics (CRT)
Operator Input	Keyboard and/or Cursor Positioning Device (CPD)
Control Panel Supply	125 VDC
Auxiliary Power Supply	120 VAC
Enclosure	NEMA Class I

The auxiliary consumption of the Turbines is expected to be as follows:

Gas Turbines:	0.59 MW
Steam Turbine:	1.63 MW
Total:	2.22 MW

This is the auxiliary consumption for turbines (GT & ST) only. The auxiliary consumption of a power plant includes all the power consumption of the following:

- Heat Recovery Steam Generator
- All auxiliary equipment, like cooling water system, demineralization plant, compressed / service air system etc.
- Offices, accommodation area, plant lighting, etc.





As this is a special built power plant @ 60 Hz, there is no separate auxiliary consumption is available, however the overall power of consumption of FFBL is around 22 MW.

Process Flow Diagram (PFD) for Gas Turbine is attached as Annex-XVI.

# H. COOLING WATER SOURCE

The cooling water system will utilize Canal Water with five (05) Cycles of concentration of cooling water. The counter flow induced draft cooling towers are designed by M/s GEA – USA, and installed at Utilities Unit to remove non-recoverable heat generated during production of Ammonia & Urea vis-à-vis to cool process fluids through cooling water. Cooling Water system consists of total 10 Cells.

Side stream pressure filtration system has also been installed to remove suspended solids from circulating cooling water. The specifications of cooling water system are given below:

Description		<u> 1</u> 6		
Manufacturer	M/s GEA Thermal - Dynami	Thermal - Dynamic Towers, Inc. USA		
Tower Type	Induced Draft Counter Current Concrete Tower			
Distribution Type	Up-spray			
No. of Cooling Tower Cells	04	06		
Capacity of each Cell	4,583 m³/hr	3,859 m <sup>3</sup> /hr		

# I. OVERALL PLANT AND ENERGY BALANCE

The Project's estimated key performance data and energy balance is set out below:

Desanistion	
Power Installed Capacity	76.6 MW
Days Operation (Typical)	300
Heat Rate of Gas Turbine	ISO Heat rate (LHV) at ISO output: 11,990 BTU / KWh
Heat Rate of Steam Turbine	Will be provided later

# J. PLANT OPERATIONAL STRATEGY

The fertilize complex is operational since year 2000. The installation of one (01) Steam Turbine Generator (STG) along with the new DAP plant will managed by FFBL through its inhouse experienced Project team. The Project team has diversified experience of managing similar multi package projects like Balancing Modernization and Revamping of Ammonia & DAP Plants (120 Million USD), O&M of Gas Turbines & Steam Turbines at their Fertilizer Plant.

FFBL inhouse team is forming O&M of its Fertilizer Complex which consist of Ammonia, Urea, DAP and Utilities Plants consisting of a number of Reactors, Steam Reformer, proximately forty (04) Steam Turbines, three (0)3 Gas Turbines and eight (08) Boilers for the last 20 years. Accordingly, this team will continue to perform O&M of the Fertilizer Complex with addition

of a new STG.





#### K. TRAINING AND DEVELOPMENT

For sustainable optimized performance, FFBL strongly believes in allocating budget for the training and development of the Employees on an ongoing basis. Moreover, FFBL has its own technical training centers and a Training Need Analysis (TNA) based program which determines the training needs and provides training to its employees. The program has cross-functional trainings for the availability of multi skilled people. In order to upgrade the technical capabilities, different national and international certification programs are offered to FFBL employees. Training is provided to the new graduates for up-to 02 years. These graduates than either become part of FFBL or other industry to contribute towards national development.

#### L. SAFETY

Fauji Group operates in all parts of its organizational functionalities keeping safety as its top priority. Therefore, The Project being a core Project of Fauji Group adopts relevant guidelines to ensure safety of men and material deployed at plant site. Fauji as a group strives to ensure that the community works in a healthy, safe and environmentally friendly atmosphere. For this reason, the company has designed its values and behaviors amongst which Health, Safety and Environment (HSE) is of utmost importance and priority. Fauji Group is committed to building a safe and healthy workforce that contributes towards the business growth and sustainability. It has a proactive approach to achieve zero harm and making endeavors to align itself with internationally recognized Safety Management Systems.

In pursuit to meet the excellence in HSE&Q, FFBL has acquired the certification of three ISO Standards i.e. QMS 9001 (Quality Management System), EMS 14001 (Environment Management System) and OHSAS 18001 (Occupational Health and Safety Assessment Series). Furthermore, FFBL is also certified with International Fertilizer Association (IFA) and Pakistan Chemicals Manufacturers Association (PCMA).

FFBL not only has a tradition of safety at work, but strongly encourages its employees to carry this mindset beyond the workplace and into their homes and communities. Thus, FFBL ensures safety of all working personnel as well as the equipment by incorporating the most stringent safety laws and practices in its working boundaries. FFBL ensures that all the work practices are well within a healthy, safe and environmentally friendly atmosphere, by giving utmost importance and priority to the key factors and guidelines promoting safety and health.

#### M. PROJECT AGREEMENTS

As FFBL is already operational since year 2000, all required agreements are in place including PQA, SSGC and KWSB etc. The Company is expected to enter into Power Purchase / Services Agreements with Risesince Steel Mill.



# N. PROJECT COST

Fauji Fertilizer Bin Qasim Limited (FFBL) is a Public Limited Company incorporated under Companies Ordinance 1984. It has a modern Granular Urea and Di-Ammonium Phosphate (DAP) fertilizers manufacturing complex, built at a cost of US\$ 468 Million and located in Eastern Zone of Bin Qasim, Karachi, with Head Office at DHA-II, Islamabad. The budgetary cost for expansion is approximately US\$ 200 Million.

#### O. SPONSOR

FFBL is a public limited company incorporated in Pakistan under the Companies Ordinance, 1984, and its shares are quoted on the Karachi, Lahore and Islamabad stock exchanges in Pakistan. The Company commenced its commercial production effective January 01, 2000. Source of funding for expansion would be Loan Financing by FFBL.

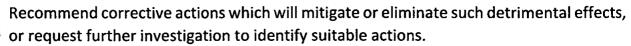
#### P. MANAGEMENT CAPABILITY

The Management Team of FFBL consists of energetic, highly qualified and experienced professionals. They excel in qualities like leadership, collaboration and project management etc. They have experience in managing the large industrial projects and commercial businesses. These Professionals are proficient with technical and entrepreneurial skills and are confident, dynamic, creative and ready to take future challenges.

#### Q. SAFETY & HAZOP PLAN FOR EXPANSION

Hazard and operability study (HAZOP) is applied worldwide as one of the process hazard analysis (PHA) techniques for processing plants. HAZOP is implemented for processing plants & utilities plant. The objectives of the HAZOP study is to identify and evaluate process safety hazards of new or existing facilities and to identify operability issues which could impact the facility's ability to achieve the required design intent and productivity. The objectives of the HAZOP are:

- Identify the reaction of plant and equipment systems to process perturbations and deviations;
- Assess whether the reaction of the system, or plant or equipment will produce effects which are detrimental to the public, personnel, environment and asset protection;
- Investigate the operability of the process;
- Identify availability and maintainability issues; and



The Plant Hazop will be performed reviewing various process nodes using guide words & deviations to develop potential hazard scenarios associated with the proposed project. The team will identify the existing levels of protection or safeguards that are in place to help minimize and eliminate the severity of the consequence or to mitigate the occurrence of the initiating event. Accordingly, Actions / Recommendations will be provided to prevent or



mitigate any residual hazard that is considered significant. HAZOP plan will cover following main areas of New plant and STG:

- High Pressure Steam (HPS) System
- Medium / Low Pressure Bleeding System
- Low / High Pressure
- Low / High flow
- Low / High temperature
- Low / high high level of tanks/ vessels
- Exhaust System
- Lube Oil & Control Oil Systems
- Utilities failure (Cooling Water, Instrument Air etc.)
- Equipment failure

Presently following Protections & Safety features are provided at FFBL to mitigate the Hazards scenarios:

- All monitoring & trip securities is provided based on 2002 / 2003
- Bentley Nevada Vibration system
- Low and remote pressure / flow / temperature indications with alarm/
- Fire resistant control oil
- Interlock/ shutdown system/ trip
- Generator Protections
- Alarm system for operator action
- Parallel / Redundant / Standby system
- Mechanical protection device (PSV's / Rupture Discs)
- Operating instructions and operating manual
- Fire water hydrants / Foam / CO2 extinguishing
- Smoke detectors & alarm in local control room

#### R. PLANT DETAIL

Name of Applicant	FFBL		
	FFBL Tower Plot No C1/C2. Jinnah Boulevard, Sector B, DHA		
Registered Office	Phase II, Islamabad, Islamabad Capital Territory 44000		
	FFBL Tower Plot No C1/C2. Jinnah Boulevard, Sector B, DHA		
Business Office	Phase II, Islamabad, Islamabad Capital Territory 44000		
Diant Logation	Plot No. EZ/I/P-1 Eastern Industrial Zone, Port Qasim,		
Plant Location	Karachi 75020		
Proposed Buyer	Risesince Steel Mill		
Total Gross Installed Capacity	76.6 MW		
Plant Configuration	02 x 26.3 MW & 01 x 24 MW (60 Hz)		
Power Factor	0.9 lag		
Generation Voltage (KV)	13.8		
Frequency (Hertz)	60		



Cooling Water Source/Cycle	Canal Water with 05 Cycles of concentration of cooling water
Life of facility	More than 20 Years
S. PROJECT TIMELINE	

At present FFBL is at the advance stage of negotiation with the GoP for concessions on DAP plant expansion along with negotiations with RSL. RSL project will start construction in June 2021, whereas it will be completed in two phases i.e. Phase 01 - 20 MW consumption will start from Jan 2022 & phase 2 – additional 40 MW will be consumed from Feb 2023.

Note: The agreements with RSL will be finalized after getting generation license from NEPRA.



#### A. BACKGROUND

Fauji Fertilizer Bin Qasim Limited (FFBL) is a Public Limited Company incorporated under Companies Ordinance 1984. It has a modern Granular Urea and Di-Ammonium Phosphate (DAP) fertilizers manufacturing complex, built at a cost of US\$ 468 Million and located in Eastern Zone of Bin Qasim, Karachi, with Head Office at DHA-II, Islamabad. Company is listed on Pakistan Stock Exchange (PSX) since May 14, 1996 and the trade symbol of the company is "FFBL". https://www.ffbl.com/

Its ammonia plant was relocated from Lake Charles, USA which was designed and operated on 60 Hz power system, (whereas Pakistan National Grid operates at 50 Hz). <u>In lieu of this</u> <u>FFBL has to established its own power generation plant i.e. 02 Gas Turbines 52.6 MW @</u> <u>60 Hz</u>, to meet the requirement for Urea and DAP as well (both new Urea and DAP Power and Control Systems were also designed on 60Hz).

At present FFBL is considering to expand its business (The Project) as under:

- 1. Expansion in existing DAP plant to meet the growing fertilizer demand of the country
- 2. M/s Risesince Steel Mill, RSL (Chinese Group) Foreign Direct Investment (FDI)

Note: RSL will establish Steel Mill within FFBL premises and their machinery is designed on 60 Hz power system with total power requirement of ~ 60 MW (FFBL will meet their power requirement).

To meet the requirement of above business, FFBL needs to increase the capacity of its power plant from 52.6 MW @ 60 Hz to 76.6 MW @ 60 Hz. The existing Gas Turbines (@ 52.6 MW) will be operating on RLNG fuel whereas, the increase in generating capacity will be achieved by installing a new 24 MW Steam Turbine Generator.

This Project will also serve the Government of Pakistan vision for creating jobs especially for youth of the country, open additional avenues for joint ventures along with strengthening the economic partnership between Pakistan and China.

# B. SITE

FFBL is located in the Eastern Industrial Zone, Bin Qasim, Karachi. Given the following characteristics, the site meets the essential criteria for The Project:

- 1. Infrastructure for supply of Natural Gas / RLNG from SSGC
- 2. Land availability for The Project
- 3. Availability of water and other utilities
- 4. Port vicinity for import of equipment and spares
- 5. Road infrastructure
- 6. Low cost of site development and suitable topographic-geological conditions
- 7. Minimum socio-economic and environment implications of The Project

The site co-ordinates are 67° 25' longitudes east, 24° 50' latitude north, about 45 km east / south east from Karachi.

#### C. SPONSOR

FFBL is a public limited company incorporated in Pakistan under the Companies Ordinance, 1984, and its shares are quoted on the Karachi, Lahore and Islamabad stock exchanges in Pakistan. The Company commenced its commercial production effective January 01, 2000. Source of funding for expansion would be Loan Financing by FFBL.

#### D. ENVIRONMENTAL AND SOCIAL IMPACT

FFBL complex including Ammonia, Urea, DAP and Utilities plants started its commercial operations in Year 2000. Since FFBL operates forty (40) Steam Turbines, three (03) Gas Turbines and eight (08) Boilers in its complex.

Accordingly, the addition of one (01) Steam Turbine will have no impact on the environment as there are no emissions from Steam Turbine. EIA study of the complex was carried out by M/s Hagler Bailly. The Gas Turbines that will be used for power generation were already part of the Complex and covered in EIA scope.

The SEQs (Sindh Environment Quality Standards) emission value limits for Gas Turbines are given below:

		R7IMary Puel	Alternative Fige
i.	CO <sub>2</sub>	-	
ii.	со	800 mg/ Nm <sup>3</sup>	N/A
iii.	SO <sub>x</sub>	400 mg/ Nm <sup>3</sup>	N/A
iv.	NO <sub>x</sub>	400 mg/ Nm <sup>3</sup>	

Following is recorded yearly average emissions values of Gas Turbines from Year 2009 to Year 2017, which are within SEQs limits:

	Year		2009	2010	2011	2012	2013	2014	2015	2016	2017
ET C	त्वस्व्या	(Unife					Values				
	CO2	%	2.05	2.03	2.1	1.9	2	1.94	1.98	1.93	1.94
Gas	со		<100	<100	<100	<100	<100	<100	<100	<100	<100
Turbine 1	SOx	mg/Nm <sup>3</sup>	<50	<50	<50	<50	<50	<50	<50	<50	<50
	NOx		<200	<200	<200	<200	<200	<200	<200	<200	<200
	CO <sub>2</sub>	%	2.03	2.09	2.1	1.9	1.8	2.04	2	1.97	1.93

Gas	со		<100	<100	<100	<100	<100	<100	<100	<100	<100
Turbine 2	SOx	mg/Nm <sup>3</sup>	<50	<50	<50	<50	<50	<50	<50	<50	<50
	NOx		<200	<200	<200	<200	<200	<200	<200	<200	<200

Note: The Gas Turbines are not in operation since 2018, therefore data from 2018 onwards is not available.

The Project entails operation and maintenance of already installed Gas Turbine Generators (GTs) and installation, operation and maintenance of a new Steam Turbine Generator (STG) along with new DAP Plant. This will have positive impact on the socio-economic environment through direct and in-direct employment generation and increased business opportunities. The expansion of the existing FFBL fertilizer plant operation along-with Risesince Steel Pvt. Ltd. will be beneficial to the country as a whole and will enhance fertilizer and steel production capacities of Pakistan.

Environmental sensitivities and impacts, as well as the associated mitigation plan has been addressed in the EIA. Further, FFBL has ensured that The Project staff is adequately trained in Health, Safety and Environment sensitivities and operational management procedures, so that all levels of staff effectively contribute to impact prevention and mitigation at all times.

Fauji Group has a number of on-going community development programs with an objective of a literate and functional community, skilled and employed youth, empowered women, health and hygiene awareness and self-reliance through targeting following areas:

- Social Mobilization
- Health
- Education
- Environmental Sustainability
- Economic Development

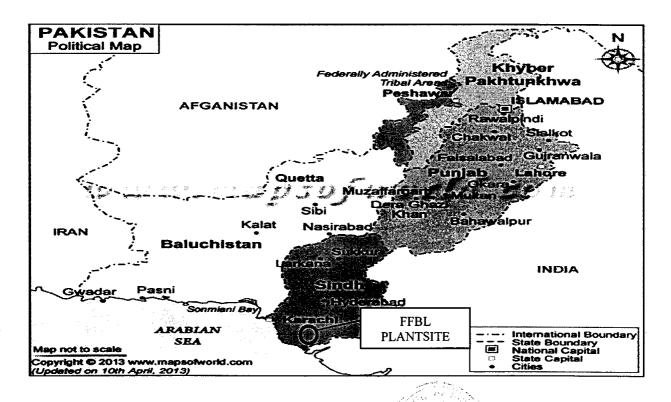


# LOCATION MAPS SITE MAPS & LAND

FFBL is located in the Eastern Industrial Zone, Bin Qasim, Karachi with overall ~ 250 Acre Land. Given the following characteristics, the site meets the essential criteria for The Project:

- 1. Infrastructure for supply of Natural Gas / RLNG from SSGC
- 2. Land availability for The Project
- 3. Availability of water and other utilities
- 4. Port vicinity for import of equipment and spares
- 5. Road infrastructure
- 6. Low cost of site development and suitable topographic-geological conditions
- 7. Minimum socio-economic and environment implications of The Project

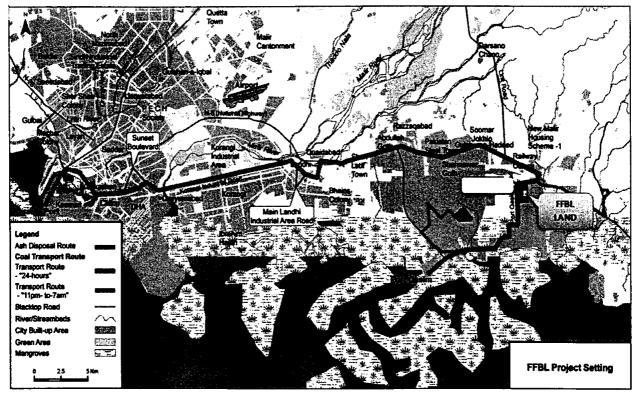
The site co-ordinates are 67° 25' longitudes east, 24° 50' latitude north, about 45 km east / south east from Karachi.



#### LOCATION MAPS SITE MAPS & LAND

#### Annex-18-A

#### SITE MAP



#### TOPOGRAPHY AND SUBSOIL CONDITIONS

The site is located in an almost flat zone close to the existing complex.

The available soils test 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 The Project location.

Based on the previous soil tests conducted, the allowable bearing pressure on the soil can reach 2.00 to 3.00 kg/cm<sup>2</sup> depending of the embedment depth.

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.

# TECHNOLOGY, SIZE OF PLANT, No. OF UNITS

The Plant configuration consists of existing 2 x 26.3 MW Gas Turbines (ISO rating) and 01 Steam Turbine Generator of up-to 24 MW installed rating at 60 Hz. The 2 x 26.3 MW Gas Turbines are of GE make (single shaft, 2 stage turbine) while the condensing Steam Turbine is in the procurement stage. Following are the detailed specifications for the Gas Turbines:

i.	Plant Installed Capacity (Gross)	76.6 MW							
ii.	Type of Technology	Gas Turbine (	Gas Turbine (02						
н.	Type of Technology	Steam Turbine (01 x Condensing)							
	Number of	GT	GT	STG					
iii.	Number of	Unit-1	Unit-2	Unit-3					
Units/Size (MW)	1 x 26.3	1 x 26.3	1 x 24						
		GT	GT	STG					
iv. Unit Make/Model & Year of Manufacture		Unit-1	Unit-2	Unit-3					
	GE	GE	Will be						
	Year of Manufacture	Model # GE-	Model # GE-	provided					
		51 PA	51 PA	later					
		Multi—Drive	Multi—Drive						
		Shaft	Shaft	N. C.					

Annex-18-B

# FUEL (Type, Logistics etc)

 $\hat{\mathbf{x}}$ 

The Project expects to utilize approximately 15 MMSCFD of RLNG. RLNG will be supplied thru SSGC (Sui Southern Gas Company Ltd) pipeline network to the power generation facility. The heating value of RLNG will be 1,000 to 1090 MMBTU / MSCF.

RLNG is the only sources of fuel and no alternative fuel can be utilized to generate electricity from the turbines.



#### Annex-18-C

# **EMISSION VALUES**

The SEQs (Sindh Environment Quality Standards) emission value limits for Gas Turbines are given below:

		Managay Fula	Alignative Fuel
i.	CO <sub>2</sub>	-	
ii.	CO	800 mg/ Nm <sup>3</sup>	
iii.	SO <sub>x</sub>	400 mg/ Nm <sup>3</sup>	- N/A
iv.	NO <sub>x</sub>	400 mg/ Nm <sup>3</sup>	

Following is recorded yearly average emissions values of Gas Turbines from Year 2009 to Year 2017, which are within SEQs limits:

	Year		2009	2010	2011	2012	2013	2014	2015	2016	2017
	TESE	Unit					Velieces				
	CO <sub>2</sub>	%	2.05	2.03	2.1	1.9	2	1.94	1.98	1.93	1.94
, Gas	CO		<100	<100	<100	<100	<100	<100	<100	<100	<100
Turbine 1	SOx	mg/Nm <sup>3</sup>	<50	<50	<50	<50	<50	<50	<50	<50	<50
	NOx		<200	<200	<200	<200	<200	<200	<200	<200	<200
	CO <sub>2</sub>	%	2.03	2.09	2.1	1.9	1.8	2.04	2	1.97	1.93
Gas	CO		<100	<100	<100	<100	<100	<100	<100	<100	<100
Turbine 2	SOx	mg/Nm <sup>3</sup>	<50	<50	<50	<50	<50	<50	<50	<50	<50
	NOx		<200	<200	<200	<200	<200	<200	<200	<200	<200

Note: The gas turbines are not in operation since 2018 therefore data from 2018 onwards is not available.

# **COOLING WATER SOURCE**

The cooling water system will utilize Canal Water with five (05) Cycles of concentration of cooling water. The counter flow induced draft cooling towers are designed by M/s GEA – USA, and installed at Utilities Unit to remove non-recoverable heat generated during production of Ammonia & Urea vis-à-vis to cool process fluids through cooling water. Cooling Water system consists of total 10 Cells.

Side stream pressure filtration system has also been installed to remove suspended solids from circulating cooling water. The specifications of cooling water system are given below:

Manufacturer	M/s GEA Thermal - Dynamic	M/s GEA Thermal - Dynamic Towers, Inc. USA		
Tower Type	Induced Draft Counter Curre	Induced Draft Counter Current Concrete Tower		
Distribution Type	Up-spray	Up-spray		
No. of Cooling Tower Cells	04	06		
Capacity of each Cell	4,583 m <sup>3</sup> /hr	3,859 m <sup>3</sup> /hr		

# INTTERCONNECTION WITH NATIONAL GRID

The Project is designed on 60Hz frequency. Due to difference in National Grid and Project power frequency i.e. 50 Hz vs 60 Hz, therefore interconnection between National/K-Electric Grid and FFBL/Project Grid is not possible.

As the project is not connected with the National Grid / K-Electric Grid, therefore no Grid Interconnection Studies (Load Flow, Short Circuit & Transient Stability) are required to be carried out.



#### Annex-18-F

### INFRASTRUCTURE, ROAD, RAILS, STAFF COLONY, AMENITIES

#### ROADS:

Fauji Fertilizer Bin Qasim (FFBL) lies in partially developed Industrial Zone of Port Bin Qasim Authority, having all the necessary road network interlinked with National Highway. The fertilizer complex already has its own road network which can be utilized for the Project and fulfills the requirement for any project related activities.

#### RAILS:

There is no requirement for the rail network as all the required transportation for fuel and logistics can be carried out through the existing road networks maintained by National highway authority and Port Qasim Authority (National Highway, Port Qasim road network) which are in vicinity.

#### **RESIDENTIAL COLONY:**

A residential colony is not required due to the location of the site being in close proximity to populated areas which are well developed and are assessed to be sufficient for the housing of staff during the construction and operation of the Project. The same practice is being followed by other Industries in the Bin Qasim Industrial Estate, accordingly no provision for the residential colony has been kept at present.

#### AMENITIES:

The basic amenities (portable water, electricity, restrooms) for labor are present in the existing Fertilizer Complex which is capable in meeting the requirements for such amenities, hence there is no need for developing a separate system for the Project.



#### PROJECT COST

Fauji Fertilizer Bin Qasim Limited (FFBL) is a Public Limited Company incorporated under Companies Ordinance 1984. It has a modern Granular Urea and Di-Ammonium Phosphate (DAP) fertilizers manufacturing complex, built at a cost of US\$ 468 Million and located in Eastern Zone of Bin Qasim, Karachi, with Head Office at DHA-II, Islamabad.

The Project consists of the expansion in the fertilizer and Power generation as under:

- 1. Expansion in existing DAP plant to meet the growing fertilizer demand of the country
- 2. Supply of power to M/s Risesince Steel Mill, RSL (Chinese Group) Foreign Direct Investment (FDI), which will be finalized after issuance of Generation License by NEPRA.

Note: RSL will establish Steel Mill within FFBL premises and their machinery is designed on 60 Hz power system with total power requirement of  $\sim$  60 MW (FFBL will meet their power requirement).

The budgetary cost for expansion is approximately US\$ 200 Million. The Engineering, Procurement and Erection of the new Steam Turbine Generator for Power Generations will be managed by FFBL in-house team of professionals on a non-EPC basis and will be funded by its own resources of debt/funds.

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# PROJECT COMMENCEMENT AND COMPLETION SCHEDULE

At present FFBL is at the advance stage of negotiation with the GoP for concessions on DAP plant expansion along with negotiations with RSL. RSL project will start construction in June 2021, whereas it will be completed in two phases i.e. Phase 01 - 20 MW consumption will start from Jan 2022 & phase 2 – additional 40 MW will be consumed from Feb 2023.

Note: The agreements with RSL will be finalized after getting generation license from NEPRA.



Annex-18-I

### SAFETY PLANS, EMERGENCY PLANS

Annex-18-K

Fauji Group operates in all parts of its organizational functionalities keeping safety as its top priority. Therefore, The Project being a core Project of Fauji Group adopts relevant guidelines to ensure safety of men and material deployed at plant site. Fauji as a group strives to ensure that the community works in a healthy, safe and environmentally friendly atmosphere. For this reason, the company has designed its values and behaviors amongst which Health, Safety and Environment (HSE) is of utmost importance and priority. Fauji Group is committed to building a safe and healthy workforce that contributes towards the business growth and sustainability. It has a proactive approach to achieve zero harm and making endeavors to align itself with internationally recognized Safety Management Systems.

In pursuit to meet the excellence in HSE&Q, FFBL has acquired the certification of three ISO Standards i.e. QMS 9001 (Quality Management System), EMS 14001 (Environment Management System) and OHSAS 18001 (Occupational Health and Safety Assessment Series). Furthermore, FFBL is also certified with International Fertilizer Association (IFA) and Pakistan Chemicals Manufacturers Association (PCMA).

FFBL not only has a tradition of safety at work, but strongly encourages its employees to carry this mindset beyond the workplace and into their homes and communities. Thus, FFBL ensures safety of all working personnel as well as the equipment by incorporating the most stringent safety laws and practices in its working boundaries. FFBL ensures that all the work practices are well within a healthy, safe and environmentally friendly atmosphere, by giving utmost importance and priority to the key factors and guidelines promoting safety and health.



# SYSTEM STUDIES, LOAD FLOW, SHORT CIRCUIT, STABILITY, RELIABILITY Annex-18-L

FFBL will directly supply power to RSL at 13.8kV / 60 Hz with Power Factor of 0.9 lagging, <u>within FFBL existing boundary limits</u>. As **the Project** is not connected with the National Grid / KE-Grid, therefore no Grid Interconnection Studies (Load Flow, Short Circuit & Transient Stability) are required to be carried out.



# PLANT CHARACTERISTICS

Name of Applicant	FFBL		
Registered Office	FFBL Tower Plot No C1/C2. Jinnah Boulevard, Sector B, DHA		
	Phase II, Islamabad, Islamabad Capital Territory 44000		
Business Office	FFBL Tower Plot No C1/C2. Jinnah Boulevard, Sector B, DHA		
	Phase II, Islamabad, Islamabad Capital Territory 44000		
Plant Location	Plot No. EZ/I/P-1 Eastern Industrial Zone, Port Qasim,		
	Karachi 75020		
Proposed Buyer	Risesince Steel Mill		
Total Gross Installed Capacity	76.6 MW		
Plant Configuration	02 x 26.3 MW & 01 x 24 MW (60 Hz)		
Power Factor	0.9 lag		
Generation Voltage (KV)	13.8		
Frequency (Hertz)	60		
Cooling Water Source/Cycle	Canal Water with 05 Cycles of concentration of cooling water		
Life of facility	More than 20 Years		

They 

# **CONTROL, METERING, INSTRUMENTATION & PROTECTION**

Annex-18-N

The Project is designed on 60Hz frequency. Due to difference in National Grid and Project power frequency i.e. 50 Hz vs 60 Hz, therefore interconnection between National/KE Grid and FFBL/Project Grid is not possible. Accordingly, FFBL will directly supply power to RSL at 13.8kV / 60 Hz with Power Factor of 0.9 lagging, within FFBL existing boundary limits.

Metering will be at 0.2 S accuracy Class. Instrumentation will be of any reputable brand and there will be minimum Over current, Ground fault, Over & Under Voltage, Current unbalance protections provided on power dispatch Feeders to RSL.



#### **TRAINING & DEVELOPMENT**

Annex-18-O

For sustainable optimized performance, FFBL strongly believes in allocating budget for the training and development of the Employees on an ongoing basis. Moreover, FFBL has its own technical training centers and a Training Need Analysis (TNA) based program which determines the training needs and provides training to its employees. The program has cross-functional trainings for the availability of multi skilled people. In order to upgrade the technical capabilities, different national and international certification programs are offered to FFBL employees. Training is provided to the new graduates for up-to 02 years. These graduates than either become part of FFBL or other industry to contribute towards national development.



### EFFICIENCY PARAMETERS

The Project's estimated key performance data and energy balance is set out below:

Deraring	deats
Power Installed Capacity	76.6 MW
Days Operation (Typical)	300
Heat Rate of Gas Turbine	ISO Heat rate (LHV) at ISO output: 11,990 BTU / KWh
Heat Rate of Steam Turbine	Will be provided later

The auxiliary consumption of the Turbines is expected to be as follows:

Gas Turbines:	0.59 MW
Steam Turbine:	1.63 MW
Total:	2.22 MW

This is the auxiliary consumption for turbines (GT & ST) only. The auxiliary consumption of a power plant includes all the power consumption of the following:

- Heat Recovery Steam Generator
- All auxiliary equipment, like cooling water system, demineralization plant, compressed / service air system etc.
- Offices, accommodation area, plant lighting, etc.

However, the power plant is part of the Fertilizer Complex, therefore the efficiency of the Power plant block is not available.

