

# **K-ENERGY (PRIVATE) LIMITED**

F-60, Park Lane, Block-5, Kehkashan, Clifton, Karachi, Pakistan  
Phone : +92-21-35157421, +92-21-35157422, +92-21-35157423 Fax: +92-21-3515-7424

November 20, 2013

The Registrar  
National Electric Power Regulatory Authority  
NEPRA Tower  
Attraturk Avenue (East)  
Sector G-5/1  
Islamabad, Pakistan  
Tel: +92 51 9206500  
Fax: +92 51 2600021

**Subject: Request for admission of application for generation license of K-Energy**

Dear Sir,

As already intimated to you in our application for a generation license, K-Energy is in process of setting up of a 420 (210 X 2) MW coal based power project within the premises of KESC's Bin Qasim thermal generation facility at Port Qasim, Karachi. The project, while establishing new coal boilers, coal handling equipment, and ancillary equipment, envisages leasing balance-of-plant assets, essentially comprising turbines and generators, of KESC's existing units' No. 3 and 4 at Bin Qasim, which are currently running on RFO/gas, subject, of course, to the approval of the authority. An understanding in this regard has been reached between K-Energy and KESC. It is important to mention that while the project will initially use imported coal the new boilers are being designed to operate on coal blended with Thar coal as and when this becomes commercially available.

The energy generated by this project shall be sold to KESC under a long term contractual arrangement as allowed by the Interim Power Procurement Regulations (IPPR) 2005. A key requirement of IPPR 2005 is the permission of the authority to KESC for the procurement of the power and determination of a feasibility stage tariff for which KESC has already filed its Power Acquisition Request (PAR) with the Authority on March 28, 2013 which was subsequently returned by the Authority based on the ground that KESC's assets to be leased are currently included in KESC's existing generation license and, therefore, cannot be leased to K-Energy without prior modification of the KESC's existing generation license in this regard.

Additionally as per IPPR 2005 rules, one of the pre-requisites for KESC's submission of PAR was the filing of an application for a generation license by K-Energy. This application to the Registrar was made on January 28 2013. However the Registrar had also returned K-Energy's generation application on the same grounds.

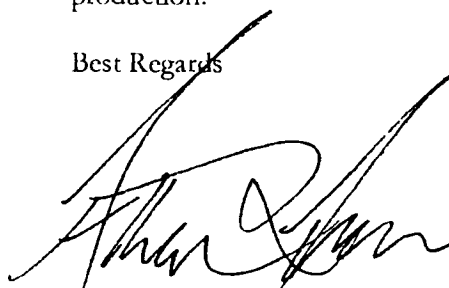
In this regard we would like to point out that KESC has already requested the Authority vide its letter dated August 01, 2013 for the modification of Generation License GL/04/2002 for exclusion of the assets to be leased out to K-Energy. A public hearing on the matter was conducted in Karachi on November 19, 2013.

In view of the above we are re-submitting our application for Generation License and would request the Authority to please process our application for the Generation License expeditiously for the following reasons:

- a) The process for issuing generation license to K-Energy has already been substantially delayed pending the modification of the existing generation license of KESC to exclude the said assets to be leased out to KESC; and
- b) Financing arrangements and commitments from investors are already in place and we are already running out of time to draw against these commitments, prior to the expiry of these commitments. You will appreciate that K-Energy was scheduled to commence drawing much earlier as per the standard procedures for the issuance of generation license to K-Energy, permission of the authority to KESC for the procurement of the power and determination of a feasibility stage tariff for which KESC has already filed its PAR.

We would like to assure the Authority that all required permissions/approvals for the project shall be obtained as per existing rules. Please also consider that K-Energy will be Pakistan's first coal-fired generation project and thus an important milestone in lowering the cost of energy production.

Best Regards

  
Athar Hameed Naseem Shaikh  
Advisor  
K-Energy (Private) Limited



# **K-ENERGY (PRIVATE) LIMITED**

43/3/J/1, Block-6, P.E.C.H.S. Karachi.

Phone : +92-21-34301940, +92-21-34301941 Fax: +92-21-34301942

**RESOLUTION OF THE BOARD OF DIRECTORS  
PASSED THROUGH CIRCULATION  
DATED JANUARY 21, 2013  
RESOLUTION NO. KE-001/2013**

Resolved that: Mr. Athar Haneef Naseem Shaikh, Advisor of K-Energy, is hereby authorized to produce affidavit on stamp paper to the National Electric Power Regulatory Authority on behalf of the K-Energy regarding all the filings of application for Generation License in respect of its 420 MW Coal based Power Project. And in relation thereto enter into and execute all required documents, make all filings and pay all applicable fees and take all other steps in connection therewith, in each case, of any nature whatsoever.

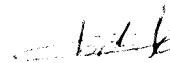
We the undersigned hereby give our consent to the passing of the above resolution by circulation and put our signatures hereunder in token of the approval thereto.



**Shaheryar Arshad Chishty**  
Chief Executive



**Shaheryar Arshad Chishty**  
Director 1



**Chaudhary Abdul Qayyum**  
Director 2



SECURITIES AND EXCHANGE COMMISSION OF PAKISTAN  
COMPANY REGISTRATION OFFICE, KARACHI

CERTIFICATE OF INCORPORATION

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


Corporate Universal Identification No. 0081549

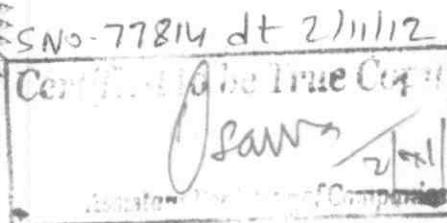
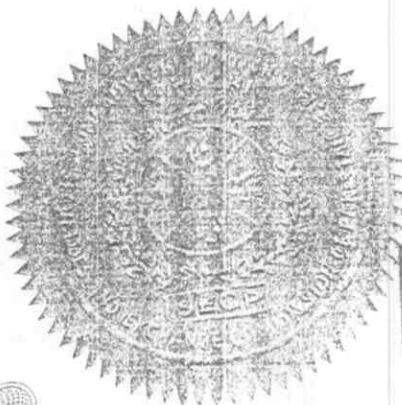
I hereby certify that K- ENERGY (PVT.) LIMITED is this day incorporated under the Companies Ordinance, 1984 (XLVII of 1984) and that the company is limited by shares.

Given under my hand at Karachi this Thirtieth day of October, Two Thousand and Twelve.

Fee Rs. 5,000 /-



  
(Sidney Custodio Pereira)  
Joint Registrar of Companies  
Karachi





THE COMPANIES ORDINANCE, 1984  
(XLVII OF 1984)

(Company Limited by Shares)

MEMORANDUM

AND

ARTICLES OF ASSOCIATION

OF

K-ENERGY (PRIVATE) LIMITED

The Companies Ordinance, 1984  
COMPANY LIMITED BY SHARES  
Memorandum of Association  
of  
K-ENERGY (PVT) LIMITED



- I. The name of the Company is K-ENERGY (PVT.) LIMITED
- II. The Registered Office of the Company will be situated in the Province of Sindh.
- III. The objects for which the Company is established are to do all or any of the following:-
  1. To design, insure, build, establish, own, operate, maintain, manage electric power generating plants for the generation, supply & transmission of electric power and in relation hereto, to establish, fix, carry out and maintain without limitation, any ancillary works, cables, wires, meter, lines, interconnect facilities, grid stations, transmission facilities, civil, electrical and mechanical works.
  2. To carry out feasibility study for and to carry on the business of power generation and in relation thereto, to generate, accumulate, transmit, distribute and sell electric power to the public sector, including the Water and Power Development Authority, National Transmission and Dispatch Company, Government and Government bodies, and the private sector.
  3. To manufacture, purchase, import or otherwise acquire, construct, own, process, lease, operate and maintain buildings, apparatus, fixtures, fittings, plants, machinery, materials, and thing as may be necessary, incidental to or convenient in connection with power generating plants for the generation of electric power and or in connection with supply, transmission and distribution of electric power.
  4. To buy, sell, manufacture, repair, alter, improve, exchange or let out, import, export and deal in all works, plant, machinery, engines, tanks, cylinders, valves, regulators, testing equipment, tools, utensils, appliances, cookers, stoves, heaters, apparatus, products materials, substances, raw materials, chemicals, natural gas, liquefied petroleum gas, fuel and coal, lubricants, articles and things and to manufacture, experiment with, render marketable and deal in all products, incidental to or obtained in the business carried on by the Company.



5. To purchase, take on lease or tenancy or in exchange, hire, take options over or otherwise acquire for any estate or interest whatsoever and to hold, develop, work, cultivate, deal with and turn to account concessions, grants, decrees, licenses, privileges, claims, options, leases, property, real or personal or rights or powers of any kind which may appear to be necessary or convenient for the business of the Company but not to act as a leasing company or property developer.
6. To sell, exchange, mortgage, let on royalty or tribute, grant licenses, easements, options and other rights over and in any manner deal with or dispose of the Company's property or any part thereof for such consideration as may be thought fit and in particular for stocks, shares or securities of any company but in any event not to act as an investment company or leasing company.
7. To establish laboratories and to employ and promote scientific research and invention, patronize such invention and enter into manufacture in collaboration with outside parties for transfer of technology from abroad and to promote transfer of technology from Pakistan abroad, and to carry on business in all other allied fields permissible by law.
8. To invest and deal with any surplus moneys of the Company not immediately for the time being required for any of the Purposes of the Company in such investments as may be thought proper and to hold, sell or otherwise deal with such investments but in any event not to act as an investment company.
9. For the purposes of the business of the Company only, to advance money upon such terms as the Company may approve, and to guarantee the obligations and contracts of customers and others but not to act as a banking company. Pakistan or elsewhere any patents, patent rights, brevets, inventions, trademarks, design licenses, protections, concessions and the like conferring any exclusive or non-exclusive or limited right to use any secret or other information as to any invention, process or privilege which may seem capable of being used for any of the purposes of the Company or the acquisition of which may seem calculated directly or indirectly to benefit the Company and to use, exercise, develop, manufacture under grant, licenses, privileges in respect of, or otherwise turn to account the property, rights and information so acquired and to carry on any business in any way connected therewith.
10. To get insured against losses, damages, risks, accidents and liabilities of all kinds which may affect the company whether in respect of its contracts, agreements, advances or securities or in respect of servants or employees or directors of the company, or in respect of property belonging to or leased to or hired by the company.



either by setting apart funds of the company or by effecting such insurance and in later case to pay the premium thereon.

11. To train personnel and workers, in Pakistan and/or abroad, to obtain technical proficiency in various specialties connected with the business of the Company.
12. To undertake and execute any project the undertaking whereof may seem desirable, and either gratuitously or otherwise.
13. To procure the Company to be registered or recognized in any foreign country or place.
14. To acquire and undertake all or any part of the business, property, goodwill and liabilities of any person or company carrying on any business which the Company is authorized to carry on or possessed of property suitable for the purposes of the Company.
15. To adopt such means of making known the business and/ or services of the Company as seem expedient and in particular by advertising in the press, or in the other media or by way of participation in exhibitions.
16. For the purposes of the Company, to purchase, mortgage of, sell, exchange, turn to account any part of the property and rights of the Company To employ or appoint any person, experts, consultants, advisers, contractors (including O&M contractors), brokers in connection with the business of the Company.
17. To pay for any property or rights acquired by the Company, either in cash or fully paid shares or by the issue of securities, or partly in one mode and partly in another and generally on such terms as may be determined banking or finance company.
18. Only in connection with the business of the Company to open and operate any current, overdraft, loan, fixed or savings bank accounts for the Company, and draw, make, accept, discount, endorse, execute and issue promissory notes, bills of exchange, bills of lading and other negotiable or transferable instruments or securities and to deposit money, securities or property with any persons, firm or company and on any terms with or without security and to advance money to the Company's executives, officers and employees/agents/customers and others having dealings with the company but in any event not to act as an investment, banking or finance company.
19. In connection with the business of the Company only, to give guarantees and indemnities for the payment of money or the performance of contracts or obligations by this Company but in any event not to act as an investment, banking or finance company.
20. In connection with the business of the Company only, to borrow and where required,





to secure the payment of money in such manner as the Company shall think fit and in particular by the creation of mortgages and charges over the (present and future) property, assets and/or undertaking of the Company and/or by issue of debentures, participation term certificates, term finance certificates and other securities charged upon all or any of the Company's property both present and future, and to purchase, redeem and payoff any such securities.

21. To take, or otherwise acquire, and hold shares in any other company having objects altogether or in part similar to those of this Company or carrying on any business capable of being conducted so as directly or indirectly to benefit this-Company but in any event not to act as an investment company.
22. Enter into partnership or into any agreement or agreements for sharing profits, union of interests, cooperation, joint venture, reciprocal concession and/or facilities with any person or company whether or not having objects similar to those of this Company but in any event not to act as Managing Agent.
23. So far as is permissible in law, to offer stock option schemes to employees, to grant funds, donations, annuities, pensions, allowances, gratuities, bonuses to any employees or Directors or employees of the Company or any dependent thereof or to any charitable, religious, social, scientific, educational, industrial institutions or organization and to establish provident, gratuity and/or superannuation funds for the benefit of present or ex-employees or Directors or former directors of the Company.
24. To enter into any agreement or agreements with any government or other authority, supreme, municipal, local or otherwise, that may seem conducive to all or any of the objects of the Company and/or to obtain from such government or authority including the State Bank of Pakistan or National Electric Power Regulatory Authority (NEPRA) any rights, concessions or privileges, licenses which the Company may think desirable to obtain and to carry out, exercise and comply with any such arrangements, rights, privileges, concessions and licenses.
25. To pay all or any costs charges and expenses preliminary and incidental to the promotion, formation, establishment and registration of the Company and to pay any development costs incurred (whether before or after the incorporation of the Company) by the sponsors of the Company in connection with any project of the Company.
26. To pay brokerage or commission to any person or persons in consideration of his/their subscribing, or agreeing to subscribe, whether absolutely or conditionally, for any shares or debentures of the Company, or for procuring or agreeing to procure subscriptions whether absolute or conditional for the same which brokerage or commission may be paid either cash or shares of the Company, credited as fully paid up.



27. To distribute any of the Company's property among the members in specie in the event of winding up of the Company.
28. To amalgamate, consolidate, or merge, either in whole or in part with or into any other companies, associations, firms or persons carrying on any trade or business of a similar nature to that which this Company is authorized to carry on.
29. To resolve, settle disputes by negotiation, conciliation, mediation, arbitration, litigation or other means, judicial or extra judicial, and to enter in compromise agreement with creditors, members and any other persons in respect of a difference or dispute with them and to exercise the power to sue and be sued and to initial or oppose all actions, steps, proceedings or application which may seem calculated directly or indirectly to benefit or prejudice, as the case may be, the interest of the Company or of its members.
30. To do all or any of the things herein in any part of the world either as principals, agents, contractors or otherwise, and either alone or in conjunction with others but in any event not.
31. To provide engineering, construction, consultancy and design services and radio and other communication systems and services, and any facilities, equipment and installations whether related to such services and systems or otherwise.
32. To carry on any other business whether manufacturing or otherwise that may seem to the Company capable of being conveniently carried on in connection with the above objects or calculated directly or indirectly to enhance the value of or render profitable any of the Company's property or rights or which it may be advisable to undertake with a view to improving, developing, rendering or turning to account any property real or personal belonging to the Company or in which the Company may be interested and to do all or any of the above things either as principals, agents, contractors or otherwise, and either alone or in conjunction with others and either by or through agents, sub-contractors, trustees or otherwise, and to do all such things as are incidental or conducive to the attainment of the above objects but in any event not to act as managing agents.
33. To do all and everything necessary, suitable or proper or incidental or conducive to the accomplishment of any of the purposes or the attainment of any of the objects or the furtherance of any of the powers hereinbefore set forth, either alone or in association with other corporate bodies, firms or individuals or with any Government authority or public or quasi-public authority or any other authority, and to do every other act or thing incidental or appertinent to or arising out of or connected with the business or powers of the Company or part thereof, provided the same be lawful.
34. 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 anyone 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 sub-clauses 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.

35. IT IS HEREBY UNDERTAKEN that the Company shall not engage in the banking business, business of a finance, investment, leasing or insurance company, or as a Modaraba management company, or the business of land development or a managing agent or any unlawful business and that nothing in the objects clause shall be construed to entitle it to engage in such business.
36. AND it is hereby declared that the word "COMPANY" when used herein and when by the context it appears that it does not refer to the above-named Company shall be deemed to include any Government body, authority, partnership or other body of persons whether incorporated or not and whether registered or not or domiciled in Pakistan or elsewhere, and that the objects set forth in any sub clauses of this clause shall both except when the same be in any way limited or restricted by reference to or inference from the terms of any other sub clause or by the name of the Company or by the nature or description property hereinafter stated to be acquired or by the juxtaposition of any two or more or by any objects being or being deemed a main or dominant object but each shall be to be an independent object.
37. AND that none of such-clauses or the objects therein specified or the power conferred shall be or be deemed to be subsidiary or ancillary or ancillary merely to the object mentioned in any of the other sub clause of this clause or any of them out, the Company have full power to exercise all or any of the power conferred by any part of this clause in any part of the world, notwithstanding that the business undertaking property rights or acts proposed to be transacted, acquired, dealt with or performed do not fall within the objects of the earlier or any other sub-clauses of this clause or any of them.
38. Notwithstanding anything stated in any object clause, the company shall obtain such other approval or license from the competent authority, as may be required under any law for the time being in force, to undertake a particulars business.
39. It is undertaken that the company shall not by advertising, pamphlets, other mean or other negotiation offer for sale or take advance money, for the further sale of plots, houses, flats etc. to the general public or individual unless such plots, houses, or flats etc. are acquired and have been developed by the company and shall not indulge in any sort of housing finance company business as mentioned in NBFC Rules 2003.



40. The Company shall not launch multilevel marketing (MLM), Pyramid and Ponzi Schemes.

IV. The liability of the Members is limited.

V. The authorized capital of the Company is Rs. 100,000 (Rupees One Hundred Thousand) divided into 10,000 shares of Rs. 10 each, with power of the Company, specifically to increase the Authorized share capital to include a further issue including of preference shares and generally, to increase or reduce the capital and to divide the shares in the capital for the time being into several classes in accordance with the provisions of the Companies Ordinance, 1984 and any rules made there under, and to attach thereto respectively such preferential, deferred, qualified or special rights, privileges or conditions as may be determined by or in accordance with the Articles of Association of the Company for the time being, and to vary, modify or abrogate any such rights, privileges or conditions in such manner as may for the time being be provided by the Articles of Association of the Company in accordance with law.



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

S.N o.	Name and Surname(Present and Former) in full Block Letters	Father's/Husband 's Name in full	Nationality with any former Nationality	Occupation	Residential Address in Full	No. of Shares Taken	Signature of the Subscriber
1	SHAIERYAR ARSHAD CHISHTY  42301-1471141-9	ARSHAD MUNIR AHMED	PAKISTANI	BUSINESS MAN	HOUSE # 40, NAVEL HOUSING SCHEME, ZAMZAMA, CLIFTON, KARACHI.	01  (One)	
2	CHAUDHARY ABUDL QAYYUM  33100-0620538-1	CHAUDHARY GHULAM RASOOL	PAKISTANI	BUSINESS MAN	HOUSE # B-95, BLOCK-A, KDA OFFICER COOPERATIVE HOUSING SOCIETY, KARACHI	01  (One)	

Certified to be True Copy  
Saw 2/11/12  
SV-77814 dt 2/11/12

Total: (02)  
Two

DATED THE 23<sup>rd</sup> DAY OF October 2012.

Witness:

Muhammad Shahid Jamal  
S/o Muhammad Jamaluddin  
CNIC 42101-1553872-1  
R-608, Block-18, F.B.Area, Karachi.

K-energy (Pvt) Ltd

30.10.2012

K

THE COMPANIES ORDINANCE 1984

(Company Limited by Shares)

ARTICLES OF ASSOCIATION

OF

K-ENERGY (PRIVATE) LIMITED



PRELIMINARY

1. Interpretation:

In these Articles, unless there is anything repugnant in the subject or context:

- (a) "Articles" means these Articles of Association as originally framed or as may be amended from time to time.
- (b) "Board" means the board of directors of the Company for the time being;
- (c) "Chief Executive" means the Chief Executive for the time being of the Company;
- (d) "Directors" means the directors of the Company for the time being;
- (e) "General Meeting" means a general meeting of the Company;
- (f) "Member" means a member of the Company as defined in Section 2(1)(21) of the Ordinance,
- (g) "Ordinance" means the Companies Ordinance, 1984, or any statutory modification or reenactment thereof for the time being in force;
- (h) "Ordinary Resolution" means a resolution passed at a general meeting when the votes cast (whether on a show of hands or poll, as the case may be) in favour of the resolution (including the casting vote, if any, of the Chairman) by members who, being entitled to vote in person or by proxy, do so vote, exceed the votes, if any, cast against the resolution by members entitled and voting;
- (i) "Register" means the register of Members to be kept pursuant to Section 147 of the Ordinance; and



- (j) "Special Resolution" means the special resolution of the Company as defined in Section 2(1)(36) of the Ordinance.
2. The 'regulations contained in Table 'A' in the First Schedule to the Ordinance ("Table 'A') shall not apply to the Company except to the extent and as hereinafter expressly incorporated.
3. In the interpretation of these Articles words importing the singular shall include the plural, and vice versa and words importing the masculine gender shall include the feminine gender and words Importing persons shall also include corporate bodies.

#### **BUSINESS**

4. (1) The business of the Company shall include the several objects in the Memorandum of Association or any of them.
- (2) The Company shall have its Registered office at Karachi along with its branches at such places as may be decided by the Board.
- (3) The business of the Company may be commenced as soon after the incorporation of the Company as the Directors shall think fit.

#### **PRIVATE COMPANY**

5. The Company is a private company within the meaning of section 2(1)(28) of the Ordinance and accordingly (i) no invitation shall be issued to the public to subscribe for any shares, debenture or debenture stock of the Company (ii) the number of members of the Company (exclusive of the persons in the employment of the Company) shall be limited to fifty, provided that for the purpose of these provisions where two or more persons held one or more shares jointly in the Company, they shall be treated as a single member and (iii) the right to transfer shares in the Company is restricted in the manner and to the extent hereinafter provided.

#### **SHARES**

6. The authorized share capital of the Company is Rs. 100,000 (Rupees One Hundred Thousand only) divided into 10,000 Ordinary shares of Rs.10/- each but the Company may from time to time, by Special Resolution increase, consolidate, sub-divide or otherwise reorganize its share capital.





7. The shares shall be under the control of the Directors who may allot or otherwise dispose of the same or any of them to such persons on such terms and conditions and at such times as the Directors think fit and with full powers to give to any persons the call of any shares at a premium or at par or (subject to the provisions of the Ordinance) at a discount and for such time and for such considerations as the Directors think fit.

8. No shares shall be offered for subscription except upon the term that the amount payable on application shall be the full amount of the nominal amount of the shares.

9. Regulations 4 to 7 in Table 'A' shall apply to the extent applicable to private limited companies.

#### **TRANSFER AND TRANSMISSION OF SHARES**

10. No transfer of any share shall be made or registered in the Register without the previous sanction of the majority of the Directors who may without assigning reason decline to give any such sanction.

11. Regulations 8 to 13 in Table 'A' shall apply to the Company.

#### **ALTERATION OF CAPITAL**

12. Regulations 14 to 18 in Table 'A' shall apply to the Company.

#### **GENERAL MEETING & NOTICES**

13 (i) Regulations 20 to 22 in Table 'A' shall apply to the Company for general meetings and

(ii) Regulations 23 to 33 in the Table shall apply to notice and proceedings of general meetings.

#### **VOTES OF MEMBERS**

14. Regulations 34 to 40 in Table 'A' shall apply to the Company.

#### **DIRECTORS**

15. (i) The number of Directors shall not be less than two.

(ii) The first Directors of the Company shall be:

- a) Mr. Shaheryar Arshad Chishty
- b) Mr. Chaudhary Abdul Qayyum





16. The First Directors of the Company shall retire from office at the first Annual General Meeting of the Company. The Board will consist of at least two Directors. A Director, including the Chief Executive, shall hold office for not more than three years unless he resigns earlier, becomes disqualified for being a Director or otherwise ceases to hold office.

#### INELIGIBILITY OF CERTAIN PERSONS TO BECOME DIRECTOR

17. No person shall be appointed as a director of the Company if 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 un-discharged 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 behaviour 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 clause (h) shall not apply in the case of: i) a person representing the Government or an institution or authority which is a member, ii) a whole time director who is an employee of the Company, iii) a chief executive, or iv) a person representing a creditor.

#### VACATION OF OFFICE BY A DIRECTOR

18. A Director shall ipso facto cease to hold office if: a) he becomes ineligible to be appointed a director on any one or more of the grounds enumerated in clauses(s) (a) to (h) of article 17, b) he absents himself from three consecutive meetings of Directors or from all the meetings of the Directors for a continuous period of three months, which ever is the longer, without leave of absence from the Directors; c) he or any firm of which he is partner or any private company of which he is a director: i) without the sanction of the Company in General Meeting accepts or holds an office of profit under the Company other than that of chief executive or legal or technical adviser or a banker, or (ii) accepts a loan or guarantee from the Company in contravention of Section 195 of the Ordinance.
19. The Directors shall be elected in a General Meeting by the Members for three years in the following manner: a) A member shall have such number of votes as is equal to the product of the number of voting shares or securities held by him and the number of Directors to be elected, b) A member may give all his votes to a single candidate or divide them between more than one of the candidates in such manner as he may choose, c) The candidate who gets the highest number of votes shall be declared elected a Director and then the candidate who gets the next highest number of votes shall be so declared until the number of Directors to be elected have been so elected.
20. If any Director shall be called upon to perform any extra service or to make special exertion or to go or reside out of Islamabad for any purpose of the Company or to give special

attention to the business of the Company, the Company may remunerate the Director for so doing either by fixed sum or by percentage of profit or otherwise as may be determined by the shareholders in a General Meeting.



### ALTERNATE DIRECTOR

21. A Director who is about to leave or is absent from Pakistan may with the approval of the Directors appoint any person to be his alternate director during his absence from the country provided such absence shall not be less than for a period of three months and such appointee whilst he holds office as an alternate shall be entitled to notice of the meetings of the Directors and to attend and vote thereat accordingly but shall ipso facto vacate office on the return of his appointing Director to Pakistan. Any appointment or removal under this article shall be effected by notice in writing under the hand of the Director making the same.

### REMOVAL OF DIRECTOR

22. The Company may by resolution in General Meeting remove a Director appointed under section 176 or section 180 of the Ordinance or elected in the manner provided for in section 178 of the Ordinance, 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:
- i) 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 sub-section (5) of section 178 of the Ordinance; or (ii) the total number of votes for the time being computed in the manner laid down in subsection (5) of section 178 of the Ordinance divided by the number of directors for the time being, if the resolution related to removal of a director appointed under section 176 or section 180 of the Ordinance.

### POWER AND DUTIES OF DIRECTORS

23. The regulations 44 and 45 in Table 'A' shall apply to the Company.

### POWER AND DUTIES OF CHIEF EXECUTIVE

24. a) Subject to the provisions of the Ordinance, the management of the business of the Company shall be carried on by the Chief Executive or any one of the Directors. Such Director or Chief Executive shall, subject to the supervision of the Board, have powers for engagement and dismissal of managers, technicians, assistants, accountants clerks, labourers, and the general direction and management of the business of the Company



with full power to do all acts matters and things deemed necessary, proper or expedient for carrying on the business of the Company as he shall think fit and to make and sign all contracts and draw, sign accept, endorse, and negotiate on behalf of the Company all bills of exchange, promissory notes, cheques drafts and other securities and instruments and to negotiate with bankers to obtain loan and overdraft facilities for the Company; subject to the provisions of sub-section (2) of section 196 of the Ordinance.

- b) The Chief Executive may, with the consent of the other Directors delegate his powers to any other person or persons so authorized in his behalf to make, sign and execute any contract and agreement as may be necessary and to draw, sign, accept, endorse and negotiate on behalf of the Company, all bills of exchange, promissory notes, cheques, drafts, securities and other instruments.

#### THE SEAL

- 25. The Board shall provide a common seal for the purposes of the Company, and shall have power from time to time to destroy the same and substitute a new seal in lieu thereof and they shall also provide for the safe custody of the seal and the seal shall never be affixed except by the authority of the Chief Executive or the Board previously given. And every deed or other instrument to which the seal of the company is required to be affixed shall be sealed in the presence of and be signed by at least one of the Directors.

#### PROCEEDINGS OF DIRECTORS

- 26. Regulations 51 to 53 and 55 and 56 in Table 'A' shall apply to the Company.

#### FILLING OF VACANCIES

- 27. Regulations 57, 58 to 62 in Table 'A' shall apply to the Company.

#### DIVIDEND AND RESERVE

- 28. (i) Regulations 63 to 70, in Table 'A' shall apply to the Company
- (ii) No dividend or bonus shall bear interest as against the Company:
- (iii) Any General Meeting declaring a dividend may direct payment of such dividend wholly or partly by the distribution of specific assets and, in particular, of paid up shares or debentures of any other Company or in any one or more of such ways and the Board

shall give effect such resolution, and

- (iv) Notwithstanding anything contained in any other of these Articles the Company may by Ordinary Resolution on the recommendation of the Board determine that any realized accretion of capital assets shall be divided amongst the members in proportion of the amounts paid up on the shares held by them respectively.



### CAPITALISATION OF PROFITS

29. The Company in General Meeting may at any time and from time to time upon the recommendation of the Board by resolution declare that it is expedient to capitalize any sum or sums:

- (i) standing to the credit of any of the Company's reserve funds; or
- (ii) being undivided profits in the hands of the Company and available for distribution and not required for the payment of any dividend which at the date of resolution is due to any shares of the Company and that the same be set free for distribution accordingly and may direct the appropriation of any such sum or sums among the members or any class of members who would be entitled to such profits if distributed as dividend and in the same proportion in which they would have been so entitled by applying the same in issuing fully paid shares or debentures of the Company for distribution among such members or towards payment of the uncalled liability on any issued shares or debentures or in any one or more of such ways and the Board shall give effect to such resolution.

### ACCOUNTS AND AUDIT

30. Regulations 71 to 78 in Table 'A' shall apply to the Company.

### AUDIT

31. Auditors shall be appointed and their duties regulated in accordance with section 252 to 255 of the Ordinance.

### NOTICE

32. Regulations 79 to 83 in Table 'A' shall apply to the Company.

### BORROWING POWERS



33. The Board may from time to time at their discretion borrow or secure the payment of any sums of money for the purposes of the Company.
34. The Board may borrow or secure the payment or repayment of such sum or sums in such manner and on such terms and conditions in all respects in a manner as they may think fit, and in particular, by the issue of bonds, perpetual or redeemable debentures or debenture stock, PTCs or any mortgage or charge or other security of or on the undertaking of the whole or any part of the property of the Company both present and future and such mortgage may contain a power of sale and such other powers and provisions as the Board may think fit.

#### **WINDING UP**

35. If the Company shall be wound up, the surplus assets shall be applied first in repayment of the capital paid upon the ordinary shares and the excess if any, shall be distributed among the Members holding ordinary shares in proportion to the number of ordinary shares held by them respectively at the commencement of the winding up.
36. Regulations 84 to 85 in Table 'A' shall apply to the Company.

#### **SALE OF TOTAL UNDERTAKING**

37. A special resolution, sanctioning of sale to any other Company, duly passed pursuant to the provisions contained in the Ordinance, may in like manner as aforesaid determine that any shares or other consideration recoverable by the liquidators be distributed amongst the members otherwise than in accordance with their existing rights and such distribution shall be binding upon all members subject to the right of dissent and consequential rights conferred by the said section.

#### **SECRECY**

38. No member shall be entitled to visit or inspect any works of the Company without the permission of the Managing Director or require discovery of any information respecting any detail of the Company's trading or any other matter which is or may be in the nature of a trade secret, mystery of trade or secret process or which may relate to the conduct of the business of the Company and which in the opinion of the Directors will be inexpedient in the interest of the members of the Company to communicate to the public.

Every Director, Manager, Auditor, Trustee, Members of a Committee, Officer, Servant, Agent, Accountant or any other person employed in the business of the Company shall, if so required by the Directors before entering upon his or their duties sign a declaration pledging himself or themselves to observe strict secrecy respecting all transactions of the Company

with the customers and the state of account with individuals and in matters relating thereto and shall by such declaration pledge himself or themselves not to reveal any of the matters which may come to his or their knowledge in the discharge of his or their duties except when required to do so by the Directors or by any Meeting or by a Court of Law and except so far as may be necessary in order to comply with any of the provisions in these presents contained.

## INDEMNITY

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

## ARBITRATION

40. Whenever any difference arises between the Company on the one hand and any of the members, their executors and administrators or assigns on the other hand, touching the true intent or construction, or the incidents or consequences of these Articles, or of the statutes, or touching anything then or there after done, executed, omitted or suffered in pursuance of these Articles, or of the statutes or touching any breach or alleged breach of these Articles, or any claim on account of any such breach or alleged breach or otherwise relating to the premises, or to these presents or to any statute affecting the Company, or to any of the affairs of the Company, every such difference shall be referred under the Arbitration Act, 1940, to the decision of an arbitrator to be appointed by the parties in difference, or if they cannot agree upon a single arbitrator, to the decision of two arbitrators, of whom one shall be appointed by each of the parties in difference, or an umpire to be appointed by the arbitrators.





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

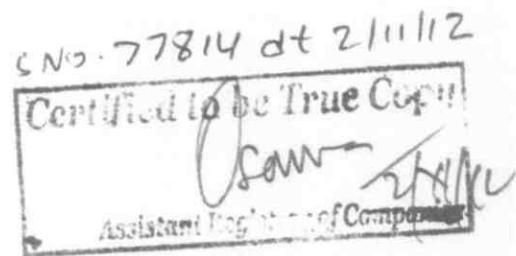
S.N o.	Name and Surname(Present and Former) in full Block Letters	Father's/Husband 's Name in full	Nationality with any former Nationality	Occupation	Residential Address in Full	No. of Shares Taken	Signature of the Subscriber
1	SHAHERYAR ARSHAD CHISHTY  42301-1471141-9	ARSHAD MUNIR AHMED	PAKISTANI	BUSINESS MAN	HOUSE # 40, NAVEL HOUSING SCHEME, ZAMZAMA, CLIFTON, KARACHI.	01  (One)	
2	CHAUDHARY ABUDL QAYYUM  33100-0620538-1	CHAUDHARY GHULAM RASOOL	PAKISTANI	BUSINESS MAN	HOUSE # B-95, BLOCK-A, KDA OFFICER COOPERATIV E HOUSING SOCIETY, KARACHI	01  (One)	

Total: (02)  
Two

DATED THE 23<sup>rd</sup> DAY OF October 2012.

Witness:

Muhammad Shahid Jamal  
S/o Muhammad Jamaluddin  
CNIC 42101-1553872-1  
R-608, Block-18, F.B.Area, Karachi.



K-energy (Pvt) Ltd

30.10.2012

K



**STRICTLY CONFIDENTIAL**

16 January 2013

**The Registrar**

National Electric Power Regulatory Authority  
OPF Building, 2nd Floor,  
Shahrah-e-Jamhuriat, G-5/2,  
Islamabad, Pakistan

Dear Sir,

**Subject: Confirmation of Investment in K-Energy (Pvt) Limited ("K-Energy")**

We are writing to inform you that PT Titan Mining Indonesia has entered into a memorandum of understanding with Bright Eagle Enterprises Group Limited ("BEEGL"), to provide equity funding of up to US\$ 50 million to K-Energy which is undertaking the fuel-conversion project of KESC's Bin Qasim Power Plant. K-Energy is a wholly owned subsidiary of BEEGL established as the project IPP Company under the laws of Pakistan. The investment will be made through PT Titan Mining Indonesia's shareholding in BEEGL.

It is to be understood that this information is given to you on a strictly confidential basis.

Sincerely,

For and on behalf of:

**PT Titan Mining Indonesia**

Graha BIP, 5th Floor  
Jl. Jend. Gatot Subroto Kav. 23  
Jakarta 12930, Indonesia

---

Authorized Signatory





January 29, 2013

Mr. Shaheryar Ghishry  
Director  
K-Energy (Pvt) Limited  
43/3/J/1, Block 6, PECHS  
Karachi 75400


Dear Sir,

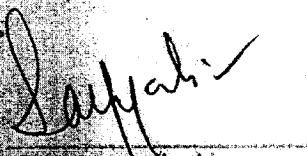
We refer to the Independent Power Project ("Project") which is being developed by K-Energy (Pvt) Limited ("K-Energy"). The Project, we understand, will be converting up to 420 MWs of the existing thermal capacity located at the Karachi Electric Supply Company's Bin Qasim plant, to use coal as primary fuel. In this context, we also acknowledge receipt of the signed copy of the Financial Advisory Mandate executed between K-Energy and our Consortium (Habib Bank Limited and Faysal Bank Limited).

The financial advisory mandate will allow us to structure and assist K-Energy in arranging up to USD 150 million debt financing from local and/or international sources for the Project. Exact quantum of debt required for the Project will be determined as the Consortium and K-Energy develops the financial model and refines it after appointment of the Engineering Procurement and Construction contractor.

We look forward to working with K-Energy on this important energy project.

Sincerely,

  
Investment Banking  
Habib Bank Limited  
01-Habib Bank Plaza  
I.I. Chundrigar Road, Karachi

  
Investment Banking  
Faysal Bank Limited  
Faysal House, ST-02,  
Shahrah-e-Faisal, Karachi

## Employment Record

## Employment Records of Engineers &amp; Technical Staff

Full Name: SON, YOUNG SEB

Term	Place of Work	Performed Service
Sep. '87~May. '94	BoRyeong Thermal Power (500MW × 6 Units)	SteamTurbine Maintenance
May. '94~Feb. '07	JungBu Technical Support Team	SteamTurbine Maintenance
Feb. '07 ~Up to now	Tae An Thermal Power (500MW × 6 Units)	Thermal Power Plant Maintenance
Nov. '03~Dec. '03	(Germany) Alstom Company	STM & GAS TBN Maintenance Training
Mar. '05~Jun. '05	(Australia) Eraring Thermal Power (600MW×4)	#4 Unit O/H
May. '08~Aug. '08	South Africa Grootvlei Power	Turbine Maintenance

Full Name: ABID MAHMUD

Term	Place of Work	Performed Service
Mar 12 ~ present	Saudi Arabia Samsung C&T Corporation	Chief Project Coordinator
Nov 08 ~ Mar 12	Pakistan The Hub Power Company Limited,	Project Director / Senior Manager Operations
Dec 07 ~ Nov 08	Pakistan Karachi Electric Supply Company Limited (Utility Company	Project Director / Director Analysis & Review

**Full Name:** KUSNADI SUKARJA

Term	Place of Work	Performed Service
Oct 2012 – Now	PAKISTAN Titan Mining Indonesia	Director
August 2010 – Sep 2012	KDV Consultant	Management Consulting
July 2007 – July 2010	METRODATA, Leader in Information Technology (IT) Industry in Indonesia	CEO of METRODATA

**Full Name:** SHAHERYAR CHISHT

Term	Place of Work	Performed Service
Present	Asiapak Investments	CEO
January 2009	Nomura International	Global Head of Industrials Investment Banking

## Overall Management

There shall be senior management team of the K Energy to run the company as per the contractual obligations with the regulator (PPA), lenders (offshore and on shore financiers and stakeholders agreements), regulatory authorities (SEPA, NEPRA, Federal & Local Government bodies etc.). Responsibility of operation and maintenance of the plant shall be contracted out to competent parties with back to back contractual binding ensuring the interest of the sponsor.

## Operation

### *Basic Philosophy*

Following are the different segments of the plant operation and maintenance-

### *Overall Plant Operation*

O&M Staff will be carrying out daily operation and maintenance of the plant. There would be long term Parts and Service Agreement with the OEM or any competent party for periodic maintenance of the ST and BOP.

### *Coal yard*

The plant would be operating on imported coal from Indonesia. Coal shall be imported to Port Qasim/ Karachi Port and to be hauled by trucks to the coal storage yard having 30 days storage capacity along with blending facility for coal. This yard location is planned to be on PQA area. There is another piece of land adjacent to the plant where there would be 7 days storage capacity for coal. Coal shall be stored in piles here. From the piles front end loaders (Bulldozer – Etc) shall pour the coal into the hopper through screens. Oversize reject coals shall travel to supplementary coal crusher. Crusher will send the crushed to size coal to hopper. Hopper will convey the coal to the bunker of boilers.

### *Coal conveying*

Coal from coal yard will be transferred to the Coal Bunker through coal conveyer. Conveyer will have the redundancy to allow for maintenance with interruption in service. Coal Bunker shall be a temporary storage/ drying storage which will act as buffer in case there is an interruption in coal conveyor operation. Coal Bunker shall give constant feed to Coal Pulverizer. There shall be 5x25% (as per ITB, 6x25% )pulverizer with a redundancy of 25% to make room for maintenance without interruption of service. From pulverizer the coal powder will be pneumatically pushed into the burner of the boilers.

### *Boiler*

Boiler shall be of Pulverized Coal type with startup fuels LDO/HSD and HFO. Coal will be supplied into the burner which is going to pressurize the fuel using compressed air. The burned high temperature working fluid will heat the water into superheated steam. Super-heater will heat

## Operation, Maintenance, Planning and Development of the Generation Facility

the steam into superheated zone. After that there shall be re-heater which shall reheat the steam from exhaust of HP Turbine. Also there may be an economizer to heat feed water. Also exhaust gasses will heat the incoming air and also air for drying of coal in pulverizer. Exhaust gas will then be sent to Electro Static Precipitator (ESP). The heavier remaining of coal/ pyrite/ ash generated due to burning of fuel shall be collected from the bottom to bottom ash handling system and storage.

### *ESP*

The electrostatic precipitator will remove fly ash from the exhaust and then forward the exhaust to the chimney. Chimney will emit the combusted cleaned gaseous substance into the ambient. Exhaust height shall be sufficient to meet the compliance requirement of emission determined by the Air Plume Modeling under the Environmental Impact Assessment (on-going)

### *Ash Handling/ Disposal*

Ash produced will be stored in ash silo. 2 fly ash silos and 1 bottom ash silo would be there to allow up to 14 days storage capacity of the ash generated. Ash from ash silo shall be transferred into special (closed tank) dump trucks which shall further transfer it to Ash pond created near the Coal yard/ nearby disposal land (there are abundant land which might be leased for landfill).

### *Cooling Water*

#### Main Cooling:

Main cooling pumps shall supply sea water for condenser cooling. These pumps are installed with an Auxiliary pump which is smaller in size and comes into operation during startup and time unit is shutdown and there is not a massive cooling water requirement.

#### Closed Cooling:

Main purpose of Closed cooling is cooling of turbine and boiler auxiliaries. There are two circuits for Cooling of Turbine Hall Auxiliaries. New pumps may be installed or may not (based on design) for new Boiler Auxiliaries and Coal handling system Cooling water requirements. Existing consists of systems operating at different pressures. This cycle cools the BFP's, CEP's, Turbine Lube Oil, Generator, and all turbine hall auxiliaries.

#### Coal Yard Cooling:

EPC may decide to use water from plant or may install new system in Yard area.

### *Fire Fighting*

Existing system will be renovated for Turbine hall and dedicated pumps and system will be installed for new installations. For Storage Yard Contractor may decide to provide from New pumps installed in plant premises or may decide to install new dedicated Pumps and system at coal storage yard.

### *Operation Personnel*

After commissioning first 2 Years Operation will be carried out by EPC Contractor Supervision. EPC contractor may or may not use local personal already working on the units. EPC contractor

# Operation, Maintenance, Planning and Development of the Generation Facility

will provide on Job training to O&M staff during 2 Year O&M Period. After O&M Period O&M Company employees will take over.

O&M Company shall be responsibility shall start from hopper in the coal yard. All the activity related to coal transportation from the primary storage and secondary storage and ash pond management shall be outsourced contractor.

O&M Company shall carryout all operation of the plant including all preventive and periodic maintenance either by themselves or by using third parties whichever is applicable.

O&M Organogram shall be as following

## Maintenance

After commissioning of the plant 2 year Maintenance shall be under contractor scope. They will train O&M Staff during 2 year period as there are no coal related power plant staff readily available in the Pakistan market. After this period Sponsor shall engage a O&M Company for the general O&M of the plant and engage some OEMs as long term parts and service provider (for critical equipment like Boiler, Pulverizer, Steam Turbines etc.) to address reliable parts and service availability for periodic specialized maintenance needs.

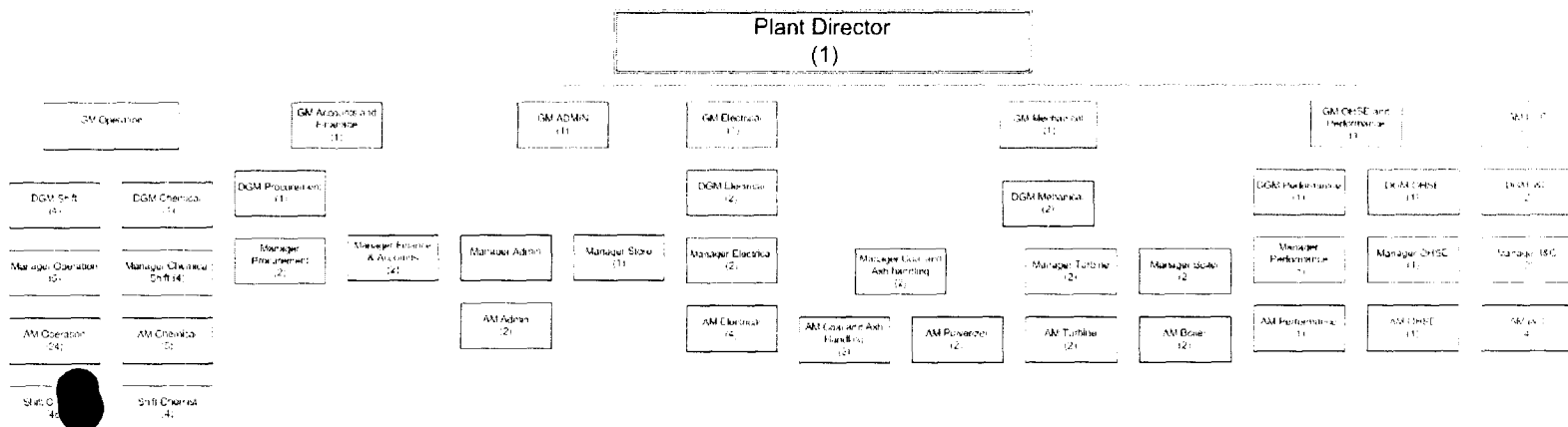


Chart 1: O&M Organogram

## Logistics and Procurement

Sponsor shall have own team to ensure smooth supply of required parts and third party services provider in time within budget to ensure reliable operation of the plant.

## Fuel Supply

The plant will be using LDO/HSD as the startup fuel and coal as the primary fuel. LDO/HSD shall be sourced from PSO/any other refinery within Pakistan. Coal shall be supplied to the plant under a coal supply agreement from the offshore supplier. All responsibility of coal logistic shall be with a competent contractor to ensure reliable supply chain management.

## Planning and Development

### *Future Supply*

In future when Thar coal becomes available Thar coal will replace imported coal as fuel. For this reason the boiler has been designed on similar high moisture Lignite coal so that switch over to Thar coal will take place without any major modification

### *Coal Supply Reclamation*

#### *When Thar coal is Available*

When Thar coal becomes available coal is going to be transported through rail line which will be extended to coal storage yard. Coal storage yard land reclamation will be done by coal ash produced by the boilers to have concrete like foundation to facilitate the future rail line extension to coal yard.

#### *When Thar is not Available*

Right now coal supply route is through trucks from PIBT. Later on in Phase-II the coal requirement will be high such that truck transport may not remain feasible. At that time dedicated Jetty will be built at the edge of coal yard and coal will be unloaded using floating type unloading jetty

### *FGD Installation*

Space for future FGD installation will be provided with each of the Boiler. Associated utilities will also be expanded such that capacity for this shall be there at the time of installation of FGD(when required in future) and no major modification shall be required at that time.

## Type of Technology

### New Equipments

	Technology as per ITB
Boiler	Pulverized Coal
Pulverizer	Ball mill type
Coal Feeder	Gravimetric or volumetric type feeders
Water Washing	EPC not constrained
Emission Control	ESP(Electro Static Precipitator) FGD (flue gas desulfurization) Low NOx burners High combustion efficiency for Low CO
Fan	
Primary air fan	Air Foil Type
Secondary air fan	Air Foil Type
Over Fire Air Fan	Air Foil Type
Motors	High efficiency type
CEP	Centrifugal Type
BFP	Centrifugal Type
Chlorination Plant	Sea water electrolysis
Water treatment	RO + EDI
Coal Conveyer	-ve Pneumatic type
Ash System	PLC-based control system
Control System	Distributed Control System
ESP	Microprocessor based control system/process 100 percent of the total exhaust flue gas
CEMS	data links utilizing MODBUS protocol for interface between the GEMS and DCS
Chimney	wet stack design, 120 m height
Instrument Air	Screw type oil free air compressors/PLC-based control system
Service Air	Screw type oil free air compressors/PLC-based control system
Distributed Control System	Emerson Ovation
Turbine Control System	Interface with DCS, manual control as well as automatic turbine start-up, auto synchronizing, and loading functions
Turbine Supervisory Instrumentation	
Generator Excitation System	Static Exciter Type
MV Switch gears	Vacuum Type, motor charged
LV Switchgears	3200 A, Short Circuit 50 kA
Inverter	Input 210~280 VDC, +/- 5% of Nominal Voltage ,Slew Rate 2.0 H
UPS	40 kVA, N+1 Config.
Cables (6.9kV,8-5kV,1-0.6kV,0.6-0.3kV)	Cu material XLPE Class B



## Type of Technology

### New Equipments

Diesel Generator	750 kVA
Cathodic Protection	Electrochemical corrosion Proof
LV Coal Handling Transformer	Dry Type Rating TBD by Contractor
LV Boiler Auxiliaries Transformer	Dry Type Rating TBD by Contractor
LV Lighting Transformer	Dry Type Rating TBD by Contractor
LV Chemical Water Treatment Transformer	Dry Type Rating TBD by Contractor
ESP Transformer	Dry Type Rating TBD by Contractor
Chemical Laboratory	

### Existing Equipments

	As Existing
Turbine	Tandem Compound Double Flow
Electric generator	247 MVA at 0.85 p.f, Hydrogen Cooled
Condensate Polisher	Mixed bed Type
Main Cooling Pump	Centrifugal Type
Main Step Up Transformer	247 MVA Oil type with Air fans
Auxiliary Transformer	36 MVA Oil Type
Start up transformer	44 MVA Oil type
220 kV Switch yard	SF-6 Insulated
Main Cooling Water Pumps	18745 m <sup>3</sup> /h/single suction
Open System Pumps	380 m <sup>3</sup> /h/Double suction
Closed System Pumps	1150 m <sup>3</sup> /h/Double suction
Hydrogen Generation Plant	Electrolysis Plant
Fire Detection and Protection System	National Fire Protection Association (NFPA)

# Prospectus

Bin Qasim Coal Power Project – 420 M.W



# Core Project Sponsor

The Titan Group of Companies is one of the fast growing privately held IT, Telecommunication, Energy, Property, and Agro Business organization in Indonesia. The Group owns or holds interests in companies ranging from IT system integration and distribution services, contact center outsourcing, wire-line telecom development to coal and minerals mining, oil & gas upstream and downstream businesses

Titan Group is broadly diversified and continually capturing new opportunities in mining & energy, oil and gas downstream storage and distribution, information technology and communication (ICT) consulting and outsourcing, , property and community development and agro business.

The group is committed to build shareholder value by leveraging synergies among its core businesses and partners to deliver products, values and total solutions to its customers. Titan extensive backgrounds provide strategic natural advantages to position it securely to maintain its healthy performance.

Titan business practices are diverse yet streamlined. It combines solid management with experienced professional team and aggressive sales/marketing strategies. Titan is determined to achieve progress and seize the existing opportunity, to provide the best service to our stake holder or customer.

Titan has developed strong ties with regional as well as national Indonesian authorities and strategically positioned itself to build mutually advantageous business alliances regionally and globally.

Titan mining and energy group is established to answer the challenge of ever increasing global and domestic energy demand. Ever since its inception, Titan mining and energy division has focused its business practices on the field of coal and minerals mining, oil and gas trader and operator.

The energy division's main business ranges from obtaining mineable sites, managing and operating mines, trading coal and minerals, producing briquette, trading and operating oil and gas distribution.

The energy group's integrated logistics and efficient operation is aimed to ensure consistent quality, supply and pricing to valued customers.

Titan Mining Energy	Holding Company of Coal Mining and Energy
Titan Mining Indonesia	Coal and Minerals Miner, Producer and Operator
Titan Dayak Usaha	Coal Trader and Briquette Producer
Titan Multi Daya	Oil and Gas Downstream Business
Titan Mineral Utama Nusantara	Nickel Mining

# The Project

The project envisages the setting up of a 420 MW Coal Power Plant at the Bin Qasim Karachi. The project is to be carried out through a Special Purpose Company (SPC) under the name and style of "K-Energy (Pvt.) Limited". The Project primarily entails conversion of existing oil-fired generation units 3 and 4 of KESC's existing thermal plant into coal-fuelled power generation units. The feasibility study of the project has been carried out by Knight Piesold and project is expected to be completed over a period of 2.5 years from commencement.

The project involves the engineering, procurement, construction of two pulverized coal boiler islands and integrating them with existing turbine islands and the successful commissioning of the entire unit. The work will also include performance testing and major overhaul of the existing steam turbines and generators and all auxiliary systems. The works will include coal unloading, coal handling, storage, covered conveyors, coal crusher building, truck unloading building, water treatment facilities, Condensate Polisher, MCC, Switchgear, PLC, Fly ash handling conveyors, bottom ash handling conveyors, ash storage silos and relocated water storage and pump stations.

Project also includes relocation/demolition of certain facilities such as water treatment plant & storage tanks, hydrogen plant, warehouse & workshop etc. New water treatment plant and storage tanks will be constructed prior to demolition of existing ones in order to minimize the plant downtime. Certain balance of plant equipment in Turbine Island is also identified for replacement and up gradation. A new DCS system will be installed in boilers as well as in existing Power Island for synchronization of the converted units and all ancillary systems. Once installed the new boilers and existing steam turbines and generators and auxiliary systems will operate to produce a guaranteed unit output (one pulverized coal fired boiler with the existing turbine generator unit) gross capacity at the contractually agreed efficiency. Once the fuel conversion has been completed and commissioned, each unit will have the contractually agreed availability and emissions. The work scope includes the design, supply, erection, overhauls, testing, and commissioning of the converted unit. The contractor will be responsible for all aspects required to fully integrate the pulverized coal fired boiler with the existing turbine generator unit. The contractor will be responsible to train the Owner's personnel who will operate the converted units and coal systems under contractor's guidance. The conversion project will encompass all works and equipment necessary to complete a working coal fired power unit, including all major activities and equipment, as well as all auxiliary plant and systems needed for the successful operation of the plant. The coal boilers are single reheat with 680-702 T/H, 145 bar, 530 degrees Celsius of main-steam generation. The project sponsors would lease the existing assets of unit 3 & 4 from KESC whereas new equipment and up-gradation of leased assets shall be arranged through an EPC Contract.



# Salient Features of the Project

Project Description	420 MW Coal Power Project														
Location	Bin Qasim, Karachi, Pakistan														
Project Company	K -Energy (Pvt) Limited														
Project Sponsor	Private Limited Company														
Project Description	K -Energy (Pvt) Ltd. is a special-purpose company that has been acquired to commission and operate a 420 MW Coal Power Project at Bin Qasim. Titan Group, Indonesia is the main core sponsor of this project.														
Project Description	Titan mining and energy group is established to answer the challenge of ever increasing global and domestic energy demand. Ever since its inception, Titan mining and energy division has focused its business practices on the field of coal and minerals mining, oil and gas trader and operator.														
Project Description	The energy division main business is ranging from obtaining mineable sites, managing and operating mines, trading coal and minerals, producing briquette, trading and operating oil and gas distribution														
Power Generation	420 MW														
Project Costs	<table border="1"> <thead> <tr> <th>Item</th> <th>Amount (US\$)</th> </tr> </thead> <tbody> <tr> <td>EPC Costs</td> <td>275.6</td> </tr> <tr> <td>Non-EPC Costs</td> <td>50.6</td> </tr> <tr> <td>Existing Assets</td> <td>207.9</td> </tr> <tr> <td>Land for Coal Yard</td> <td>4.6</td> </tr> <tr> <td>IDC</td> <td>21.0</td> </tr> <tr> <td>Total</td> <td>559.7</td> </tr> </tbody> </table>	Item	Amount (US\$)	EPC Costs	275.6	Non-EPC Costs	50.6	Existing Assets	207.9	Land for Coal Yard	4.6	IDC	21.0	Total	559.7
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Equity	150.0														
Total	559.7														
Construction Period	2.5 years														
Project Life	20 Years														
Annual Electricity Generation	2,655 GWH														
Investment Cost	PKR 9.013														

K Energy  
420 MW Coal Power Project  
Bin Qasim, Karachi, Pakistan  
K -Energy (Pvt) Limited  
Private Limited Company

K -Energy (Pvt) Ltd. is a special-purpose company that has been acquired to commission and operate a 420 MW Coal Power Project at Bin Qasim. Titan Group, Indonesia is the main core sponsor of this project.

Titan mining and energy group is established to answer the challenge of ever increasing global and domestic energy demand. Ever since its inception, Titan mining and energy division has focused its business practices on the field of coal and minerals mining, oil and gas trader and operator.

The energy division main business is ranging from obtaining mineable sites, managing and operating mines, trading coal and minerals, producing briquette, trading and operating oil and gas distribution

420 MW

Item	Amount (US\$)
EPC Costs	275.6
Non-EPC Costs	50.6
Existing Assets	207.9
Land for Coal Yard	4.6
IDC	21.0
Total	559.7

Item	Amount (US\$)
Debt	409.7
Equity	150.0
Total	559.7

2.5 years

20 Years

2,655 GWH

PKR 9.013

# Environmental and Social Considerations

The Proposed Project entails construction of new coal-fired boilers to replace existing oil-fired boilers. The EIA has documented all major environmental concerns associated with the project. The main environmental concerns are:

- Disposal of waste from structure replacement
- Air quality issues
- Occupational health and safety management during construction
- Marine ecology issues

A series of mitigation and monitoring measures have been included to address the concerns for these measures. Assuming effective implementation of the mitigation measures and monitoring requirements the adverse environmental and social impacts of the proposed Project are likely to be within the acceptable limits.

Location

Bin Qasim, Karachi

Site Map



Sr	Description	Values
1	Technology	Coal Power
2	Size	420 MW
3	No of Units	2 units (210x2)



Sr	Description	Values
1	Fuel	Imported Coal (with specifications close to Thar Coal)

## Emission Values

Parameters	Units	Unit # 3	Unit # 4
CO	mg/Nm3	18.4	10.2
SO2	mg/Nm3	2,525	2,377
NO <sub>x</sub>	mg/Nm3	324.5	282.4
O <sub>2</sub>	%	6.8	7.3
CO <sub>2</sub>	%	10.4	10

## Description

There are two distinct Cooling water cycles

1. Sea Water Cooling System
2. De-Mineralized (Demin) Water Cooling System

Sea water cooling cools the steam turbine condenser while demin water cools the turbine and Boiler Auxiliaries. And later on demin water exchanges the heat gained with sea water to cool itself.

### 1. Sea Water Cooling System

Cooling water will be taken from sea water intake channel, currently being used for Unit 3 , 4 , 5 and 6 water supply

The distance from Unit is shown in the following map

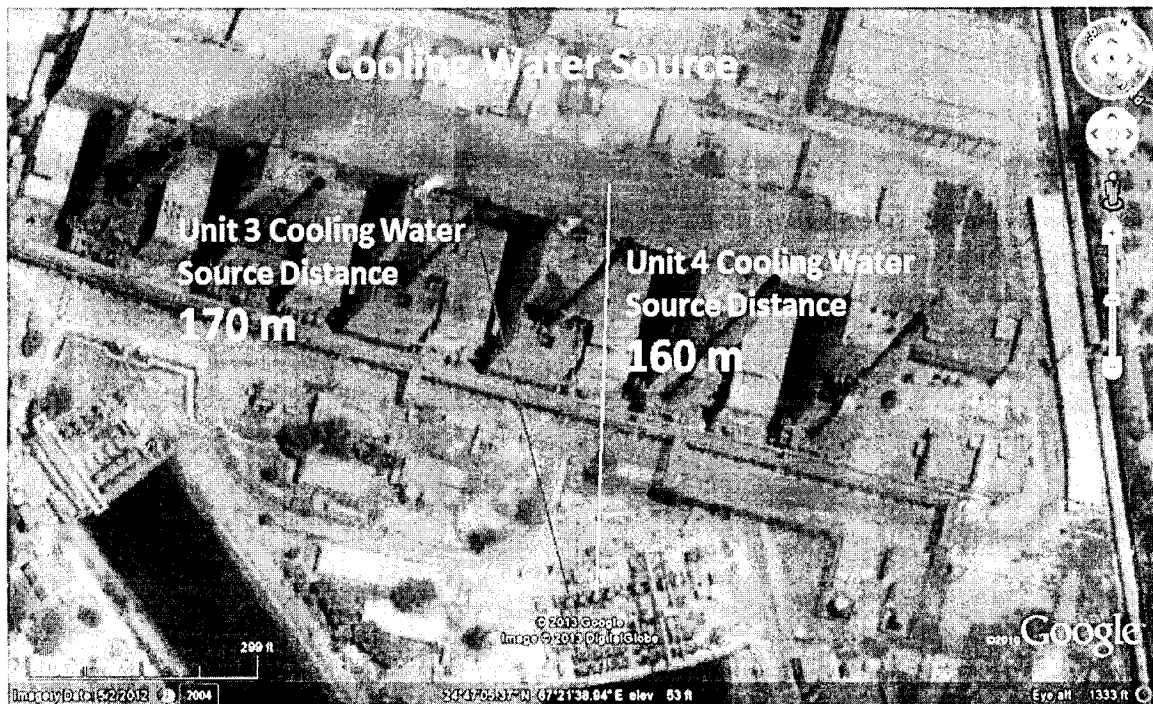


Figure 1: Approx. Distance of Sea Water source from Unit 3 and 4 Condensers

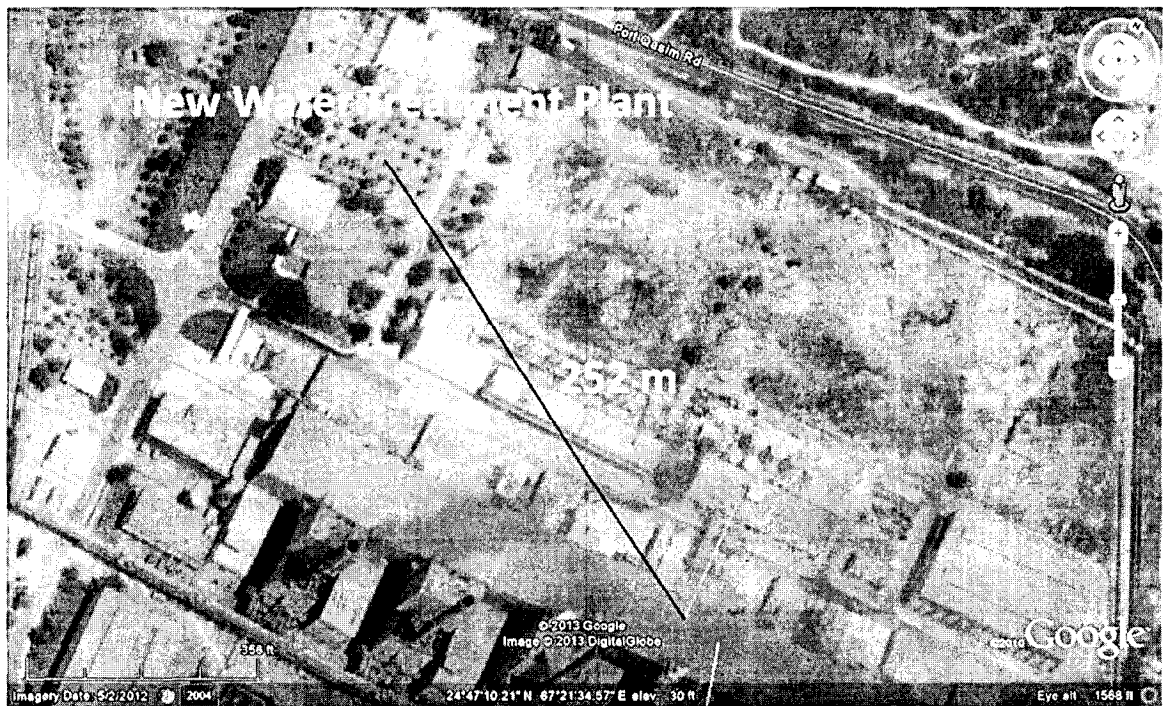
### 2. Demin Water Source:

Demin water cooling is done in close cycle which eliminates the distance criteria. The distance from cooling water source is approximately 100m as shown in the diagram below.



Figure 2 : Existing Distance from water treatment to Unit 3 and 4.

The new distance after project implementation will be as following (252 m)



## Grid Interconnection & SLD

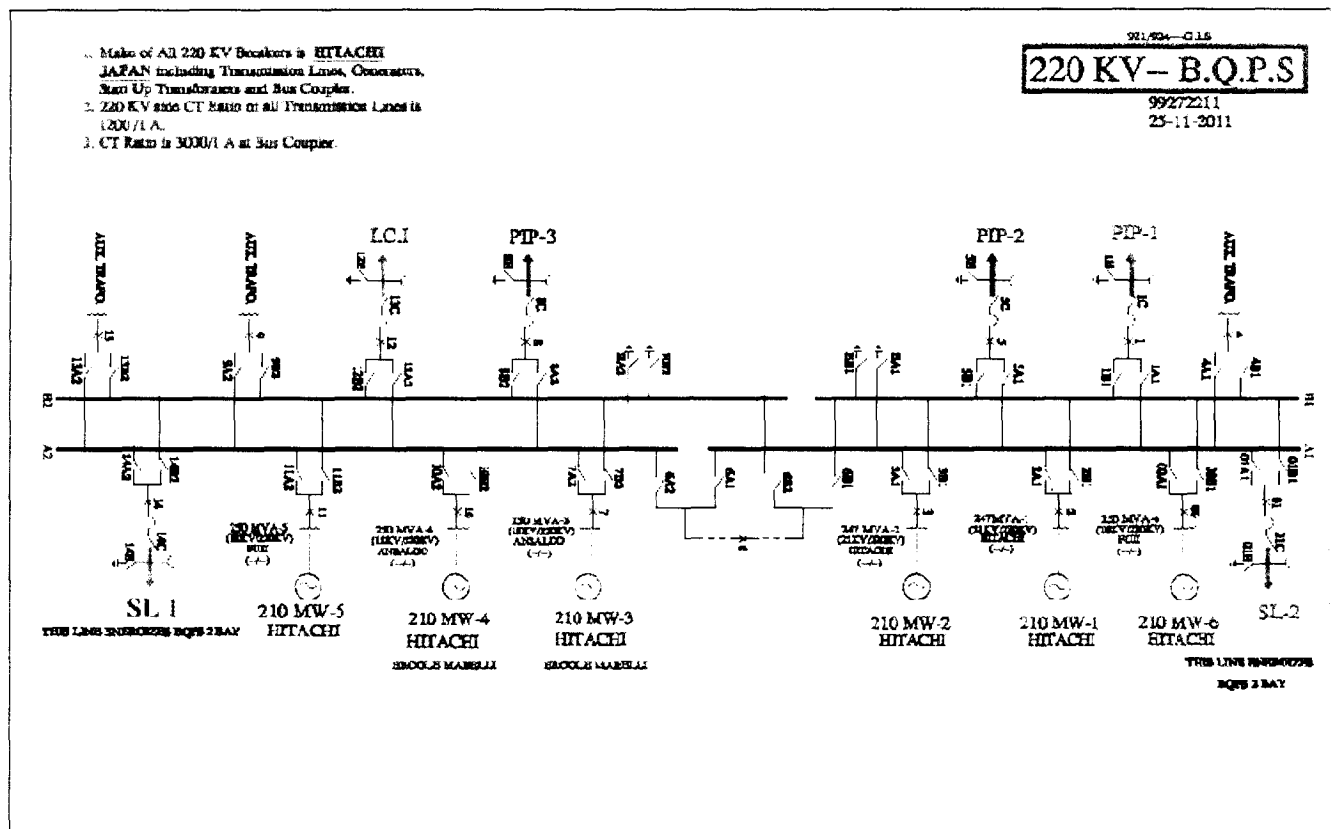
The 18 kV outgoing from Generator's terminal is step up to 220 kV for transmission. There is an indoor, 220 kV, SF-6 Substation with 4 transmission lines from BQPS-1 namely:

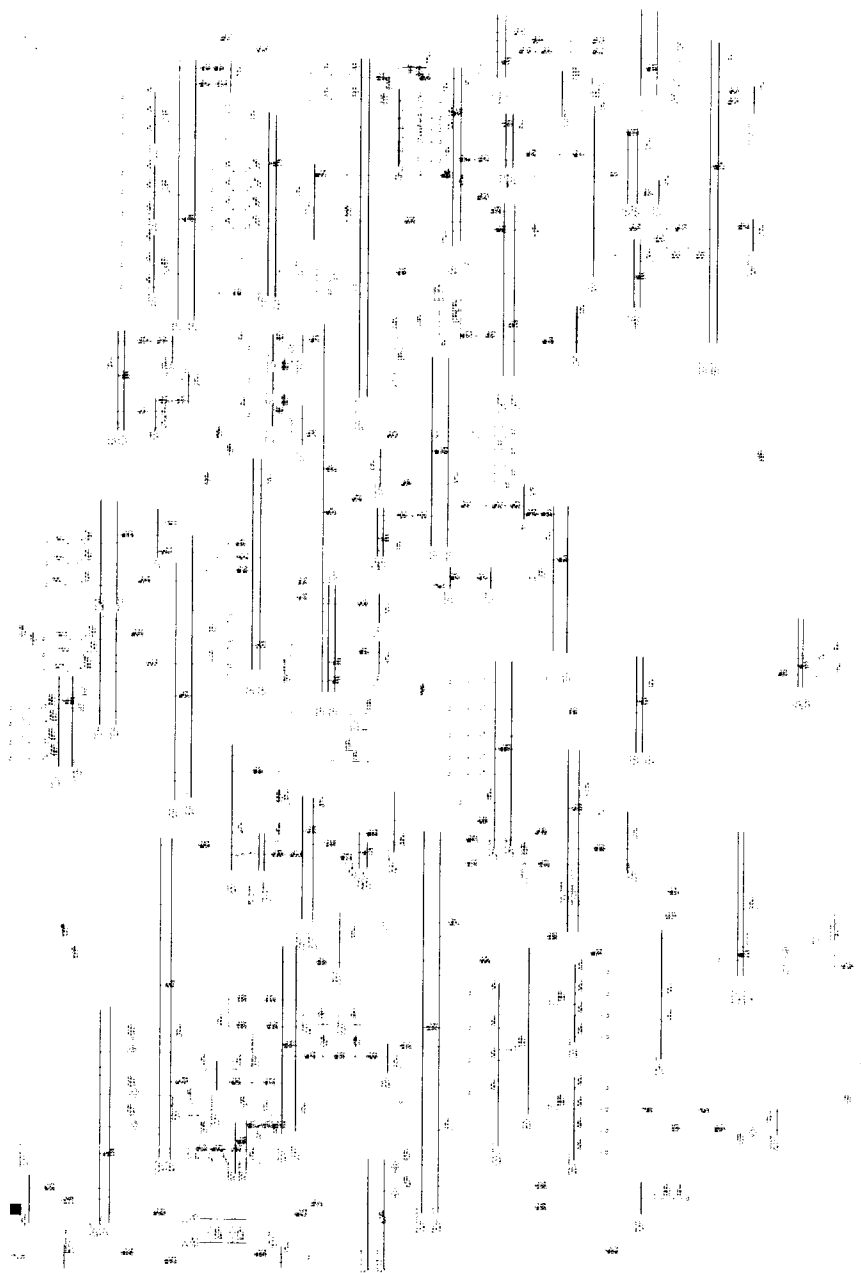
- ICI
- Pipri-1
- Pipri-2
- Pipri-3

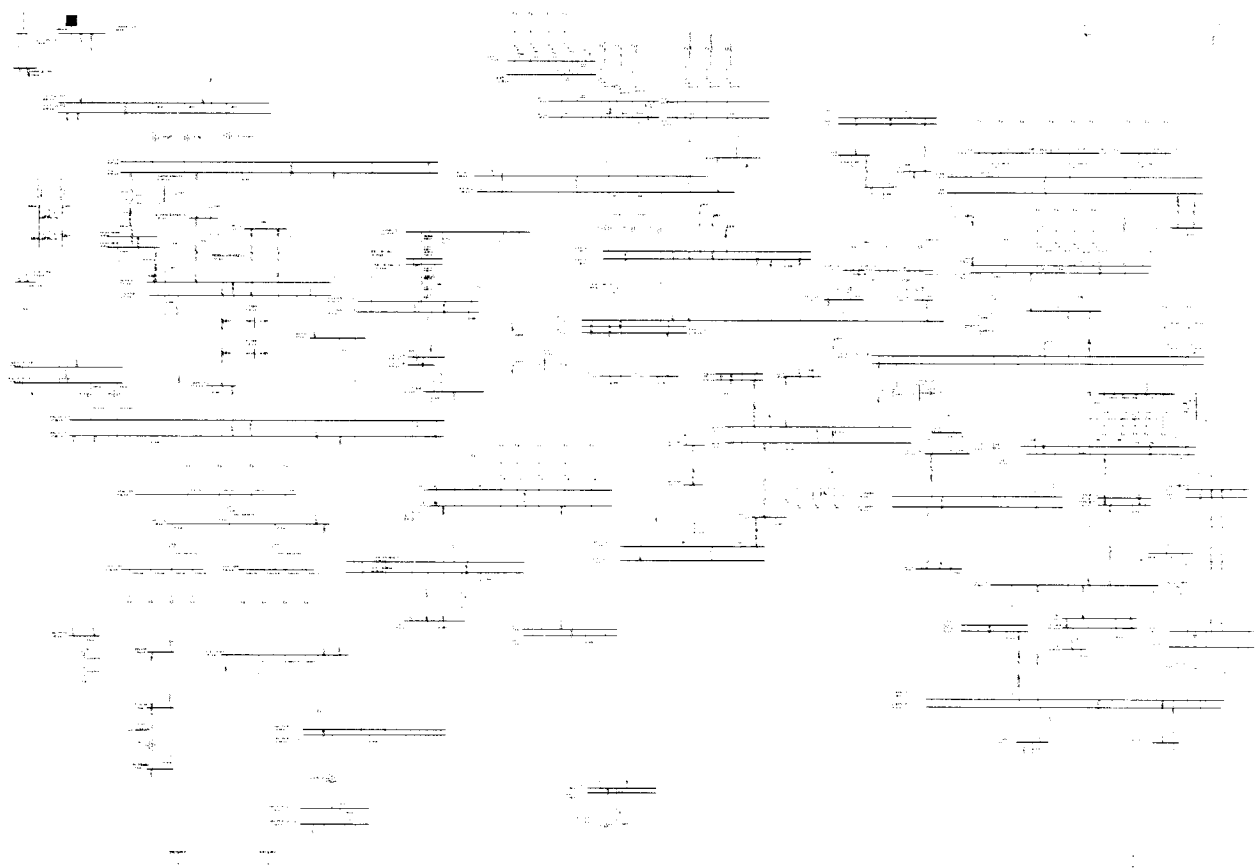
The distances of these lines to the terminating Grid stations are:

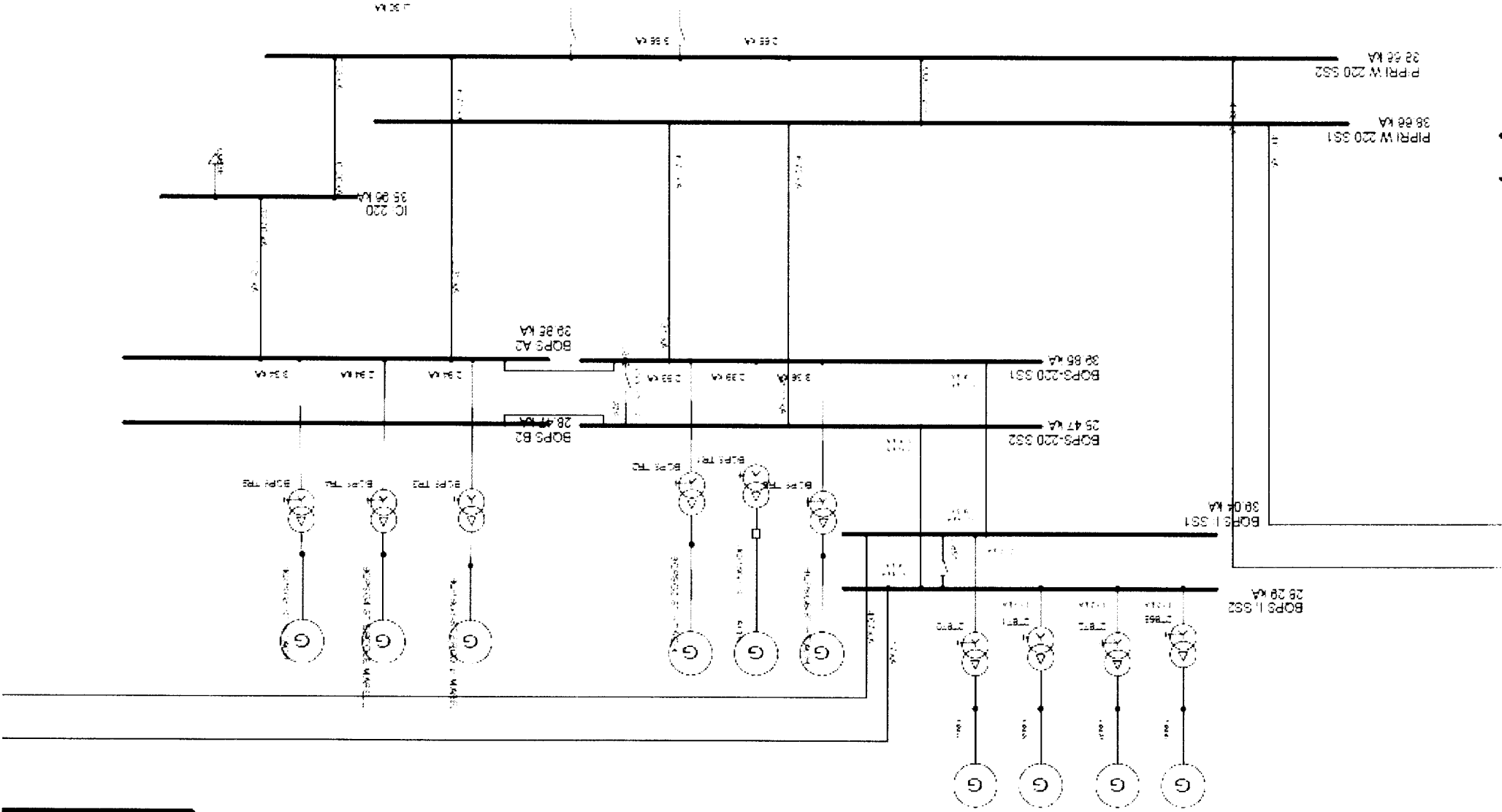
- 1) BQPS - Pipri 1 = 8.67 kms (approx)
- 2) BQPS - Pipri 2 = 8.67 kms (approx)
- 3) BQPS - Pipri 2 = 8.67 kms (approx)
- 4) BQPS - ICI = 0.5 kms (approx)

The SLD for the 220 kV BQPS Substation is given below











## Grid Connectivity

The existing unit 3 and 4 are already connected with KESC grid, therefore there is no need to Interconnection Study. KESC letter in this regard is attached herewith.

KESC

**KARACHI ELECTRIC SUPPLY COMPANY LIMITED**

KESC House, 39 B, Main Sunset Boulevard, Phase II, DHA  
Karachi, Pakistan

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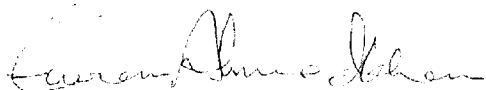
February 21, 2013

Mr. Shaheryar Chishty  
Chief Executive Officer  
K – Energy (Pvt.) Limited  
43/3/J/1, Block 6, PECHS  
Karachi 75400

**Subject: Interconnection of 420 MW Coal Power Project**

We hereby confirm that existing units 3 and 4 of Bin Qasim Power Station - 1 are already connected to KESC grid, therefore no interconnection study is required for the proposed project.

Yours Truly



Emran Ahmed Khan  
Technical Director  
Karachi Electric Supply Company

## Infrastructure

	The plant will be connected to Coal Bulk Storage area by 17m wide road with a distance of approx 9 km one way
	No Rail interconnection at this point
	No Staff Colony
	Guest House, Staff & Officer canteens, Car Parking etc

## Project Cost and Financing Plan






EPC Costs	275.6
Non-EPC Costs	50.6
Existing Assets	207.9
Land for Coal Yard	4.6
IDC	21.0
<b>Total</b>	<b>559.7</b>

Equity	409.7
Debt	150.0
<b>Total</b>	<b>559.7</b>

## Project Timeline:

1Q			2Q			3Q			4Q			5Q			6Q			7Q			8Q			9Q			10Q			PNTP	Unit 3 from FNTF	Unit 4 from FNTF	Total From PNTF
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	(Months)	(Months)	(Months)	(Months)
																														2	24	28	30

### Legend

	Design Period
	PTOC Unit 3
	PTOC Unit 4
	Ongoing Activities
	PNTP Duration

## Definitions:

PNTP

Preliminary Notice to Proceed. Means the preliminary notice issued by the Owner to the selected Bidder after signing of the Contract to commence the Preliminary Works. After PNTP the contract will be negotiated between owner and Contractor, during this period contractor shall do the leg work that has low cost and high lead time to shorten the project time. Contractor has quoted separate cost for these works, in case of contract termination contractor shall complete preliminary works and will be paid for those works as quoted in the Bid.

**FNTP**

Final Notice to Proceed. Means the notice issued by the Owner to the Contractor declaring the execution of the Contract upon fulfillment of obligations of both the Parties under the relevant clause(s) of the Contract.

**PTOC**

Preliminary taking Over Certificate. It's the date of commencement of Unit commercial operation, for unit 3 indicated by red square and for Unit 4 indicated by Yellow Square. From this date 2 year O & M Period shall begin.

**PD**

Project Design period. During this period EPC shall finalize the design with minute details of each equipment. EPC shall submit the design to owner for final review and approval.

# Annual Return – K Energy (Private) Limited

K – Energy is a newly incorporated Company and its annual return is yet to be filed.

## **1. Safety**

During the construction period Contractor shall ensure safety. Conformance to standards and codes will be ensured.

After Commissioning during and after 1 year O&M Period safety will be followed as per safety plans developed with mutual consent working of KESC and Sponsor.

Please See Annexure 4 for sample safety Plans that will be developed for new plant during construction phase and implemented from commercial operation commencement.

## **2. Emergency Plans**

During Commissioning period and after commissioning emergency plan will be followed as per above mentioned (Safety Plan) principles.



**Plant Characteristics**

S. No.	Characteristic	Unit	Value
1	Generation Voltage	kV	220
2	Power Factor	%	85
3	Frequency	Hz	50
4	Automatic Generation Control	Yes/No	No
5	Ramping Rate	%/min	0.5, 1, 3 and 5

## **Control, Metering, Instrumentation and Protection**

There are individual meters for each unit installed with

1 meter for Main Generator in Unit's Control Room (refer to Pic-1 & Pic-2)

1 meter for Unit Auxiliary Transformer in Unit's Control Room (refer to Pic-1 & Pic-2)

1 meter for Sent out from Main Transformer (refer to Pic-3)

1 meter for Start up Transformer Common to unit 3&4 (refer to Pic-4)

All the metering for 6.6kV load and 0.4kV load is done by meters installed over respective 6.6kV and 0.4kV switchgears.

**Moreover, there are meters installed on 4 outgoing lines. Three lines going to Pipri West and one line going to ICI.**

## Description

EPC to provide trainings during 2 year O&M as following

### 1. On job training

In on job trainings or hands-on training contractor will train owner employees such that they are able to operate units with same fluency after EPC departure.

### 2. Off job training

Off job trainings will be Classroom trainings to train employees for all possible scenarios' especially those that will arise during aging of the equipment's or not likely to occur during the 2 year O & M period.

The EPC contractor will conduct comprehensive training of Owner's personnel in the operations and maintenance of the coal fired units.

After O&M Period in house and external training shall be performed as per then requirements.

## Medium of Trainings

Training will be done in English and/or Urdu, as required, with a competent translator. The training will be documented in training manuals and these manuals will be made available to the Owner staff members being trained.

## Training Documentation

The training and operations and maintenance manuals will be submitted 6 months before scheduled unit commissioning for Owner approval

# Audited Financial Statements – K Energy (Private) Limited

As K – Energy is a newly incorporated Company and its first financial year would end on 30<sup>th</sup> June 2013, therefore no audited financial statements are available as of today. However financial statements of main sponsor Titan Group have been provided to NEPRA.

## Capacity Information

Gross Installed Capacity	420 M.W
De-rated Capacity at Mean Site Conditions	410 M.W Approx.
Auxiliary Consumption	41.07 M.W
Net Capacity	387.93 M.W

## EPC Contractor

K – Energy has only completed the feasibility report and being a coal project it is applying for feasibility stage/advance tariff therefore EPC contract shall be finalized later and we would duly submit the details of the contractor to NEPRA.