

PPA.

SBD/AR/NEPRA-46/2014-0714

July 14, 2014

The Registrar
NEPRA Tower, Ataturk Avenue (East)
Sector G - 5 / 1
Islamabad

Subject: Power Acquisition Request ("PAR") of K-Electric for Purchase of 12.5 MW Power (Coal Fired) from Al Abbas Sugar Mills Limited ("AASML")

Dear Sir,

K-Electric Limited ("K-Electric") is pleased to submit for the approval of Authority, the Power Acquisition Request for the purchase of 12.5 MW power from Al Abbas Sugar Mills Limited ("AASML") under the Interim Power Procurement (Procedures & Standards) Regulation, 2005.

We look forward to the admission of the subject PAR within the timeframe stipulated in the IPPR 2005 and grant of Power Acquisition Permission by the Authority in order to expedite the availability of power from the said source.

Thanking you.

Yours sincerely,

Adnan Rizwi
Director
K-Electric Limited

For information &
M.A.M.
18/07/14
cc: vc/m(Lic)
M(T)
21/7 MCCA
— Reg (AR-II)
— SA (Tech)
— SAT-I
— LA (KIP)
— m/F

Enclosed:

1. Power Acquisition Request of K-Electric
2. Letter from Company Secretary of K-Electric Ltd. confirming authorization
3. General Power of Attorney of CEO of K-Electric Ltd.
4. Power Sale Proposal of AASML
5. Copy of Generation License of AASML

SAT-II 22/07
Dkt-T-1

Mr. Kamran

Comments sent
to Registrar
for info.

Pl. get copy of the Power Sale Proposal/PPA for
further processing & comments for our info.
DDP-V 23/7/14

Senior Advisor Tariff-I
Dr. No. 4767
Date: 21-7-14

Registrar 5964
Dr. No. 18-07-14
Dated: 18-07-14

(5)

National Electric Power Regulatory Authority
(Registrar's Office)

No. NEPRA/R/PAR-100/8525


July 21, 2014

Subject: **POWER ACQUISITION REQUEST (PAR) OF K-ELECTRIC FOR PURCHASE OF 12.5 MW POWER (COAL FIRED) FROM AL ABBAS SUGAR MILLS LIMITED (AASML)**

Enclosed please find herewith a copy of subject Power Acquisition Request (PAR) alongwith all annexures, submitted by K-Electric vide letter No. SBD/AR/NEPRA-46/2014-0714 dated July 14, 2014 (received on July 18, 2014), for comments.

2. Being time bound case; the provision of requisite comments by 24-07-2014 shall be highly appreciated.

Encl: As Above

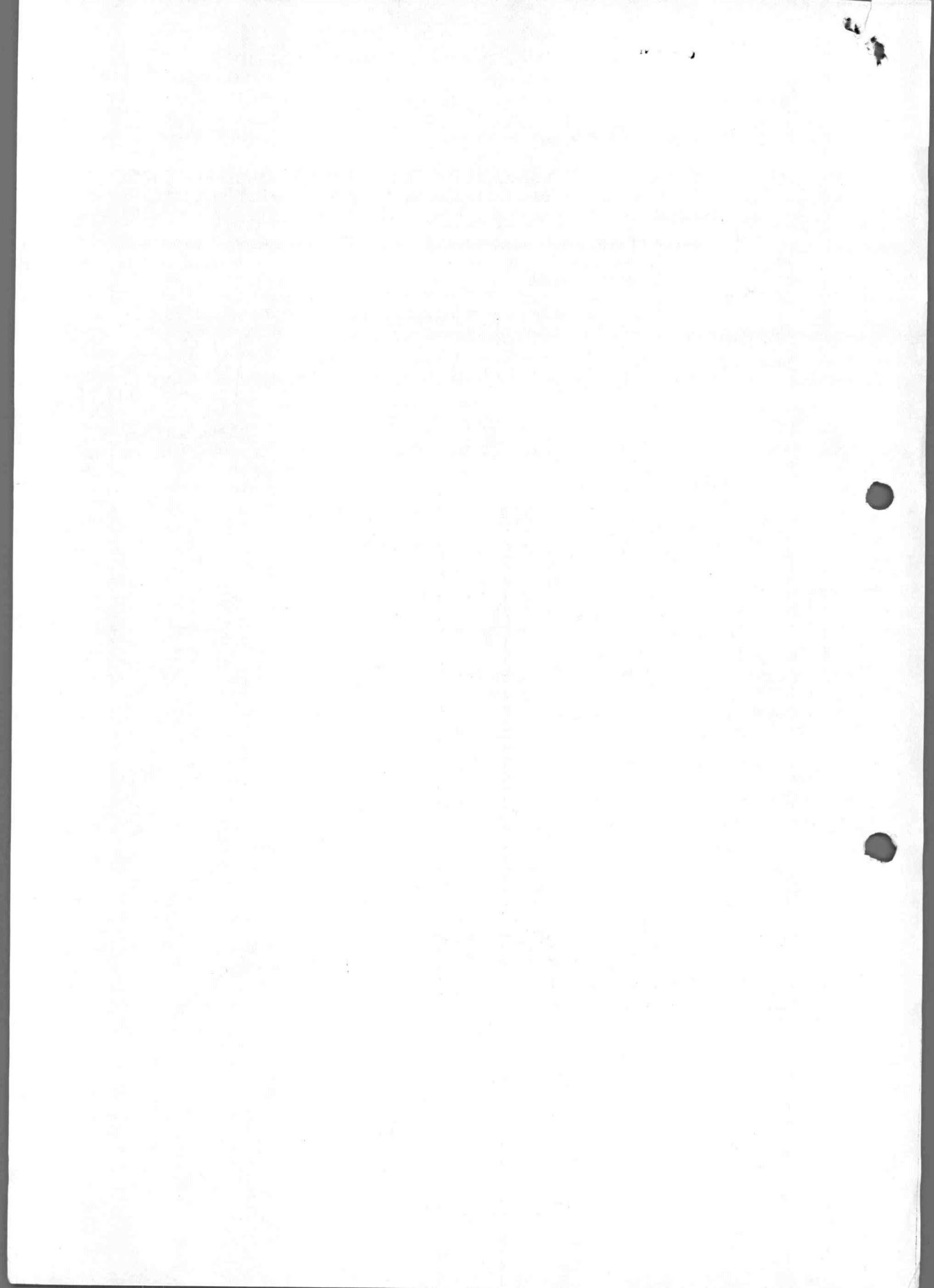
 21/7/14.
(Iftikhar Ali Khan)
Deputy Registrar

1. SA (Tech)
2. SA (Tariff-I)
3. Director (Licensing)
4. Legal Advisor (KIP)

CC for Information:

1. V. Chairman / Member (T)
2. Registrar
3. Master File
4. Mr. Zain Ullah Shah, OS (To update the status)

Mr. Kauran



SBD/AR/NEPRA-46/2014-0714

July 14, 2014

The Registrar
NEPRA Tower, Ataturk Avenue (East)
Sector G - 5 / 1
Islamabad

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We look forward to the admission of the subject PAR within the timeframe stipulated in the IPPR 2005 and grant of Power Acquisition Permission by the Authority in order to expedite the availability of power from the said source.

Thanking you.

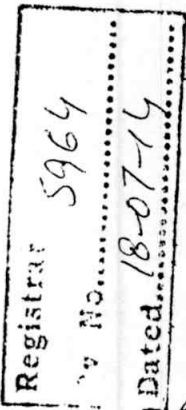
Yours sincerely,

Adnan Rizwi
Director
K-Electric Limited

For information &
M.A.M.
18/07/14
ce.vc/m(Lic)
M(T)
MCCA
— D.R. (AR-II)
— SA (Tech)
— SAT-I
— LA (KIP)
— m/f

Enclosed:

1. Power Acquisition Request of K-Electric
2. Letter from Company Secretary of K-Electric Ltd. confirming authorization
3. General Power of Attorney of CEO of K-Electric Ltd.
4. Power Sale Proposal of AASML
5. Copy of Generation License of AASML



KESC

KARACHI ELECTRIC SUPPLY COMPANY LTD.
2nd Floor, KESC House, Phase-II, Sunset Boulevard, Defence Housing Authority,
Karachi, Pakistan
Phone: (92 21)38709132(7245) – Facsimile: (92 21) 9920 5192

Ref # GM(RA)/NEPRA/2013/1193
September 05, 2013

Mr. Iftikhar Ali Khan,
Deputy Director,
NEPRA,
Islamabad

Sub: Receipt of un-necessary communication in NEPRA


This is with reference to NEPRA letter no. NEPRA/R/LAG-30/10709 dated: August 30, 2013 and received in this office dated: September 03, 2013 regarding "Receipt of un-necessary communication in NEPRA".

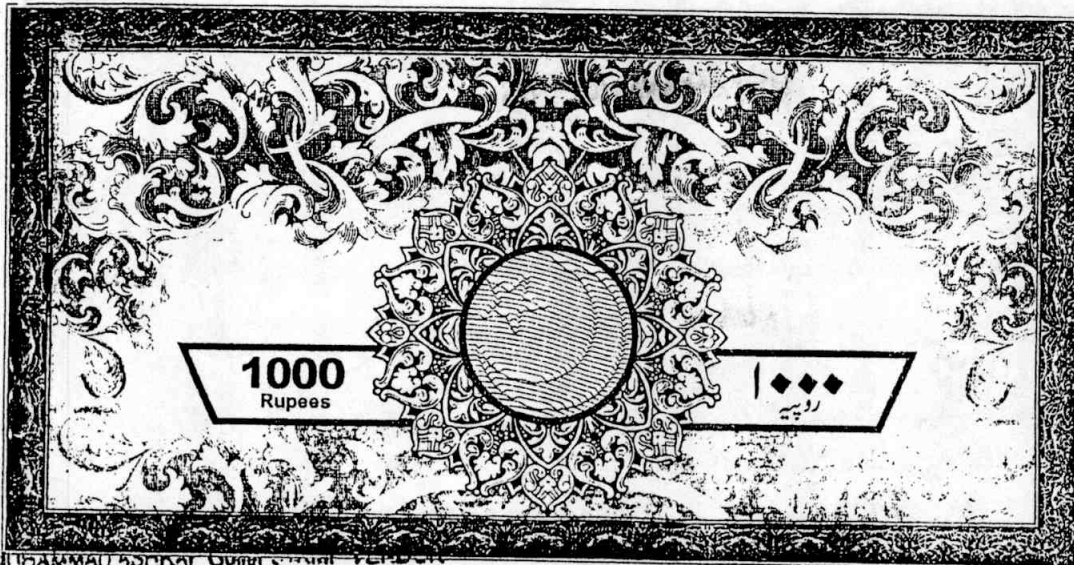
In this regard, we submit that we have checked the recent correspondences carried with NEPRA and didn't find any unnecessary internal communication, which is sent to NEPRA by KESC. Even then we will ensure compliance of the directives of NEPRA as required in the letter referred above.

Further, the following officers of KESC are authorized to communicate with NEPRA:

S.N	Name	Designation	Email	Contact Numbers
1.	Syed Moonis Abdullah Alvi	Chief Financial Officer & Company Secretary	moonis.alvi@kesc.com.pk	Direct: 021-32647017 PABX: 02138709132 (Ext: 7220) Fax: 021-35647155
2.	Muhammad Aamir Ghaziani	Director Controlling, Accounting & Regulations	muhammad.aamir@kesc.com.pk	Direct: 021-32647015 PABX: 02138709132 (Ext: 7207) Fax: 021-99205192
3.	Adnan Rizwi	Director Strategy & Business Development	adnan.rizwi@kesc.com.pk	Direct: 021-32647064 PABX: 02138709132 (Ext: 7034) Fax: 021-99205192
4.	Rafique Ahmed Shaikh	General Manager, Regulations	rafique.shaikh@kesc.com.pk	PABX: 021-38709132 (Ext: 7245) Fax: 021-99205192

Best Regards,


Syed Moonis Abdullah Alvi,
Chief Financial Officer & Company Secretary,



MUHAMMAD KAMRAN Qureshi
 Licence No. 67, House No. 1085, Street No. 1
 Uleghat Ashraf Colony No. 2, Mahmoodabad 8, Karachi
 Br. No. 33534 Date 12 FEB 2013
 Issued To with Address _____
 Through with Address _____
 Purpose _____
 Value Rs. 1000/-
 Stamp Vendor Signature _____

12 FEB 2013

GENERAL POWER OF ATTORNEY

TO ALL TO WHOM these presents shall come, KARACHI ELECTRIC SUPPLY COMPANY LIMITED, having its registered office at KESC House, 39-B, Sunset Boulevard, Phase-II, DHA, Karachi (hereinafter called the "Company") send greetings.

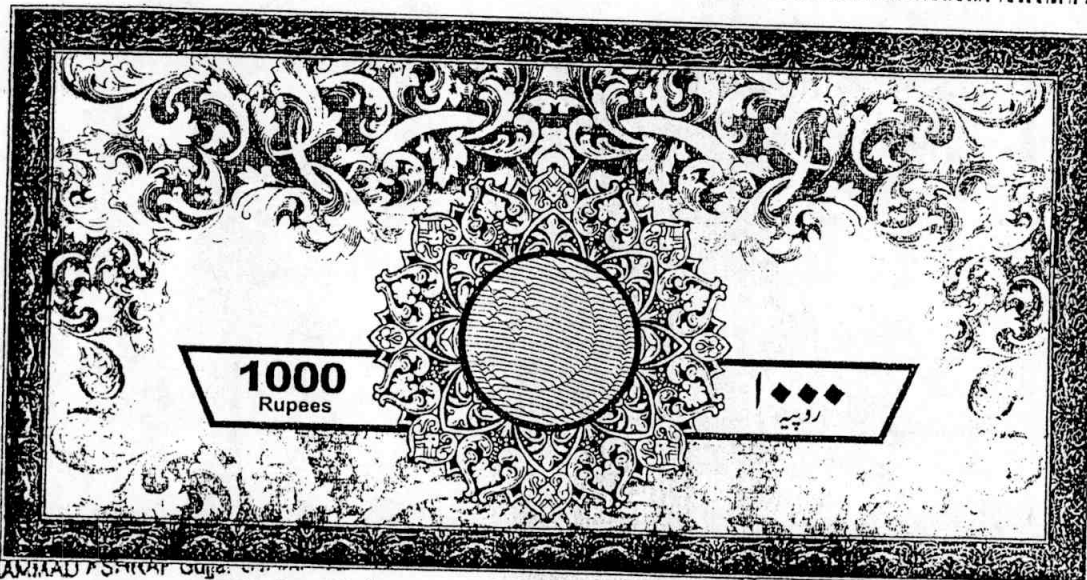
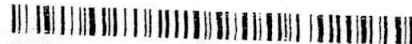
WHEREAS the Company was incorporated under the Companies Act 1882 as a company limited by shares and continues to operate as such under the Companies Ordinance 1984;

AND WHEREAS by virtue of the powers conferred upon them by Article 77 of the Company's Articles of Association, the Board of Directors of the Company have passed the resolution dated 11 February 2013 and entrusted to and conferred upon Mr. Nayyer Hussain, the Chief Executive Officer of the Company, the following powers which shall be exercisable by him from the date that a Power of Attorney enumerating the same is executed in his favor by any two (2) directors of the Company.

NOW THESE PRESENTS WITNESS THAT Mr. Nayyer Hussain son of Syed Shahid Hussain, CNIC # 42301-3968741-3 the Chief Executive Officer of the Company, is hereby appointed Attorney of the Company to act in the name and on behalf of the Company to do and perform the following acts and things only:

- 1) To purchase, sell, endorse, transfer, negotiate, encash, receive interest or otherwise deal in securities of all kinds including Government of Pakistan securities and securities of the Provincial Governments of Pakistan;
- 2) To sign all registers, reports and returns and others documents as may be required by law to be signed or filed with any Federal, Provincial or Local Governmental authority including but not limited to the Securities and Exchange Commission of Pakistan, Stock Exchanges, Registrar Joint Stock Companies, State Bank of Pakistan and Income Tax, Customs and other authorities;
- 3) To sign all acceptances and endorsements on bills of exchanges, hundies, securities and cheques drawn on behalf of the Company and to receive the amount of bills, hundies, securities and cheques and to give receipts and discharge for the same and to sign all documents drawn on or by the Company to which the signature of the Company as agents is required;

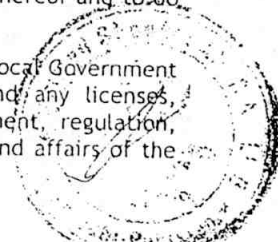


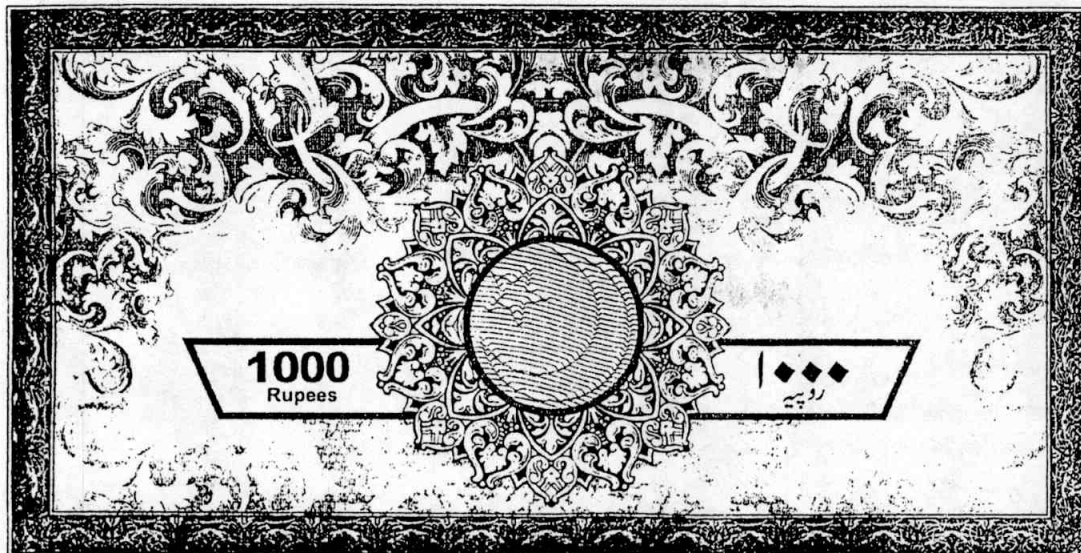


MUHAMMAD ASHRAF Qureshi
 Licence No. 87, House No. 1085, Street No. 1
 Usqueet Aerial Colony No. 2, Mehroodabad 6, Karachi
 Sr. No. 1000 Date 12 FEB 2013
 Issued To with Address
 Through with Address
 Purpose
 Value Rs. 1000
 Stamp Vendor Signature

12 FEB 2013

- 4) To sign for and on behalf of the Company all documents, assurances, deeds, and matters or things in or about the business of the Company as fully and effectively as the Company could do if personally present, to present such documents and deeds to the registering authority and admit execution thereof;
- 5) To process certificates of shares of the Company and to sign all papers relating to the transfer of shares including temporary receipts thereof;
- 6) To process Dividend Warrants and their revalidation;
- 7) To authenticate and or cancel the registration of Debentures;
- 8) To sign all correspondence that may be necessary in the ordinary course of the business of the Company;
- 9) To sign all deeds of sale, purchase, lease, mortgage, redemption, re-conveyance and present them before the registering authority and admit execution thereof;
- 10) To execute all bonds, deeds and documents and give such security as may be required now or at any future time by the Government of Pakistan or by any person, corporate body, company or firm to enable the Company to carry on its business;
- 11) To appoint and authorize any officer of the Company as his agent or agents to admit execution of deeds and documents of whatsoever nature before the registering authority and to revoke such appointment or appointments;
- 12) To sign, execute, determine or terminate and negotiate terms and conditions thereto agreements/appointment for employment and training with employees and trainees, in line with requirements of the Companies Ordinance and Code of Corporate Governance as applicable;
- 13) To sign for and on behalf of the Company all documents, agreements, contracts, assurances, deeds, matters or things in or about the business of the Company as fully and effectively as the Company could do personally and to present such documents, agreements, contracts, assurances, deeds, matters or things to the registering authorities and appear before such authorities and admit execution thereof and to do all such other things and acts that may be necessary for registration;
- 14) To make and sign applications to appropriate Federal, Provincial or Local Government departments, authorities or other competent authority for all and any licenses, permissions and consents required by any order, statutory instrument, regulation, byelaw or otherwise in connection with the business, management and affairs of the Company;





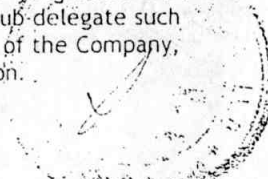
MUHAMMAD ASHRAF Gujjar STAMP VENDOR

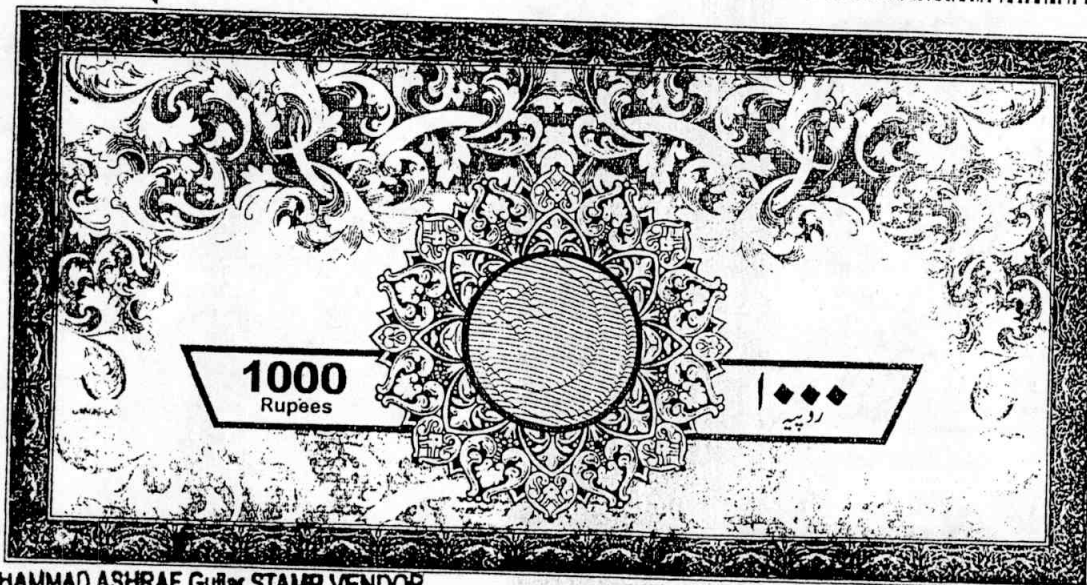
Licence No. 67, House No. 1086, Street No. 1
 Usman Ashraf Colony No. 2, Matimoodabad 6, Karachi

12 FEB 2013

St. No. 12531 Date 12 FEB 2013
 Issued To with Address: [Signature]
 Through with Address: [Signature]
 Purpose: [Signature]
 Value Rs. [Signature]
 Stamp Vendor Signature: [Signature]

- 5) To obtain securities from any person, corporate body, company or firm for the due performance of any contract in respect of rendering any service or supplying any material to the Company and to accept the same on such terms as may be deemed proper or expedient by the Attorney;
- 16) To realize debts due to the Company and to receive any money due to the Company from any person, corporate body, company or firm and to grant receipts and discharges for the same;
- 17) To make payments to any person, corporate body, company or firm for any service rendered to the Company and for such other purposes of the Company and for carrying on of the Company's business and to sign and deliver all receipts, charges and drafts on the bank and other accounts of the Company or on the customers of the Company and to endorse all bills and bills of exchange received by the Company which may be necessary or expedient to be signed, endorsed or given for the purpose of carrying on of the Company's business;
- 18) To represent the Company before any Court of law, Federal, Provincial or Local Government authority or any other authority in all matters concerning the business or property of the Company;
- 19) To commence, institute, prosecute, and to defend, compound and abandon all proceedings, actions, suits, petitions, appeals, claims and demands by or against the Company or its officers in relation to the business or property of the Company or otherwise and for such purpose to sign, verify and present any document, pleading, complaint, writ, affidavit application or other instrument in writing and to appear and make statements on oath or otherwise in relation to the affairs of the Company and to appoint and remunerate any barrister, solicitor, advocate, pleader, vakil, mukhtar, or any legal practitioner or any revenue agent, accountants, valuers or surveyors for the said purpose and to obtain legal advice on behalf of the Company on any matter, contentious or otherwise, affecting the Company;
- 20) To write off amounts as approved by the Board of Directors arising as a result of correction / cancellation / adjustment of electricity bills in the normal course of business of the Company. To approve formula for write offs, adjustment and settlement of electricity bills based on prudent business practices / judgement and within the policy framework approved by the Board of Directors. To sub-delegate such of the powers as he deems fit to the concerned executives / officers of the Company, to fix authority limits, thereof, and to revoke the same at his discretion.



**MUHAMMAD ASHRAF Gujar STAMP VENDOR**

Licence No. 87, House No. 1085, Street No. 1
 Ulequeet Ashraf Colony No. 2, Mahmoodabad 6, Karachi

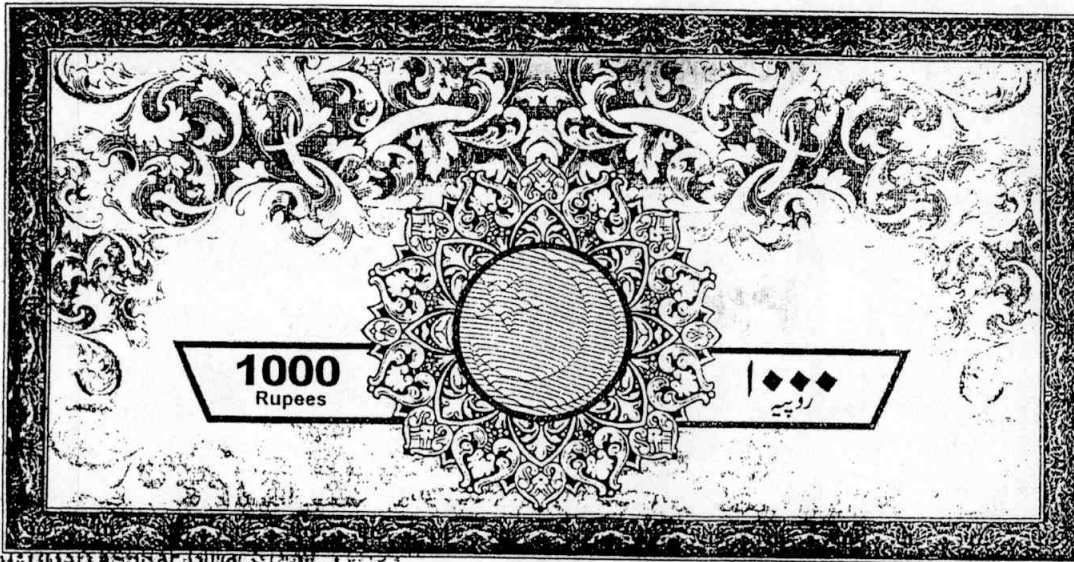
12 FEB 2013

Br. No. 2537 Date 12/2/13
 Issued To with Address K.E.C.
 Through with Address Q/A
 Purpose Stamp
 Value Rs 1000
 Stamp Vendor Signature [Signature]

- 21) To obtain refund of stamp duty or repayment of court fees;
- 22) To appear and act in the offices of the District Registrar and Sub- Registrar of Deeds and Assurances for registration of documents and in any other office of the Federal, Provincial and local Government, including without prejudice to the generality of the foregoing, City District Government Karachi, any Union Council, District Council, Cantonment Board, Municipal Corporation, any Co-operative Society, State Bank of Pakistan, Collector of Customs, Excise & Taxation Offices and the Chief Controller of Imports and Exports in all matters concerning the business or property of the Company;
- 23) To file and receive back documents, to deposit and withdraw money and to grant receipts therefore;
- 24) To negotiate and to enter into and complete contracts with any person, corporate body, company or firm for the lease or purchase of any lands and buildings and to alter, repair, add to, and improve any building or structure and to let or sub-let any immovable property held by the Company and to submit plans of buildings relating to the Company's properties or lands on the Company's behalf before any competent authority and to obtain receipts therefor;
- 25) To use, sign and attest the name and style of the Company in any transaction, deed, document or muniment of title on all such occasions as may be necessary or expedient for conducting the business of the Company or for the due and proper management of the lands and buildings leased or purchased or to be leased or purchased by the Company and to execute and sign all such deeds and documents as may be required or proper for or in relation to all or any of the matters or purposes aforesaid;
- 26) To delegate to any person such of the powers as he deems fit and revoke the same at his discretion.
- 27) Generally to do all other acts and things incidental to the exercise of the aforesaid powers; and
- 28) The Company hereby agrees to ratify and confirm all and whatever the said Attorney shall lawfully do or cause to be done by virtue of this Power of Attorney.



111300



MUHAMMAD ASHRAF Gujar Street
 Licence No. 67, House No. 1025 Street No.
 Usqueat Ashraf Society No. 2, Mohamoodabad 8, Karachi
 Sr. No. 3758
 Issued To with Address
 Through with Address
 Purpose
 Value Rs
 Stamp Vendor Signature

12 FEB 2013

The Power of Attorney executed in favor of Mr. Tabish Gauhar pursuant to the Resolution of the Board of Directors passed on 28 October 2009 is hereby revoked. This Power of Attorney will be valid till the time Mr. Nayyer Hussain holds the position of Chief Executive Officer of KESC Limited.

IN WITNESS WHEREOF the Common Seal of the Company has been affixed hereto at Karachi on this 12th day of February 2013 by the undersigned directors of the Company pursuant to the resolution dated 11 February 2013 passed by the Board of Directors of the Company.

Signature of Mr. Nayyer Hussain
 Attorney

THE COMMON SEAL of
 the Company is hereunto
 affixed in the presence of

Muhammad Tayyab Tareen
 Director



Syed Arshad Masood Zahidi
 Director

WITNESSES:

1.
MUHAMMAD ARIF
42401-1868587-5
2.
Iqbal Uddin
42401-3577139-7

ATTESTED

Munir Ahmad Shaukat Ali
 14TH COMMISIONER KARACHI



13 FEB 2013

1111

Power Purchase Request

In relation to:

Al-Abbas Sugar Mills Ltd.

Submitted before:

National Electric Power Regulatory Authority

Submitted by:

K-Electric Limited

July 14, 2014

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K - Electric Limited ("KEEL") is the only vertically integrated utility in Pakistan engaged in Generation, Transmission and Distribution of electricity. KE was incorporated on 13 September 1913, under the Indian Companies Act. It was subsequently nationalized in 1952 and brought in under the Federal Government umbrella within the Ministry of Water and Power. It is a public limited company with its shares listed on all three bourses, i.e., Karachi, Lahore and Islamabad Stock Exchange. The KE was privatized on November 29, 2005, and majority share ownership was transferred to a consortium of Al-Jomaih Group (Saudi Arabia) and National Industrial Group (Kuwait). Abraaj Capital (Dubai) took control of KE management in September 2008 and since has raised an investment of circa US\$ 1.0 billion including their own equity injection of US\$ 361 million to embark upon an aggressive turnaround.


K-Electric has an installed capacity of around 2000 MW gross. The actual availability is less because of site conditions, reduced capacity of older units in BQPS-I and non-availability of gas to run the available capacity at higher loads. Additionally, it purchases electricity from Independent Power Producers, Captive Power Producers and National Transmission and Distribution Company ("NTDC"). KE serves all segments of the society including industrial, commercial, agricultural and residential consumers within Karachi and adjacent areas of Sindh and Baluchistan. The company has a rapidly increasing consumer base which currently stands at 2.3 million. More importantly, within its franchise area, KE is faced with the challenge to serve more than 20 million people which constitute over 10% population of population in Pakistan. KE's vast transmission network area spans across 6,000 square kilometres.

The Company is principally engaged in generation, transmission and distribution of electric energy to industrial, commercial, agricultural and residential consumers of Karachi under the Electricity Act, 1910 as amended to date and NEPRA Act 1997, to its licensed areas.



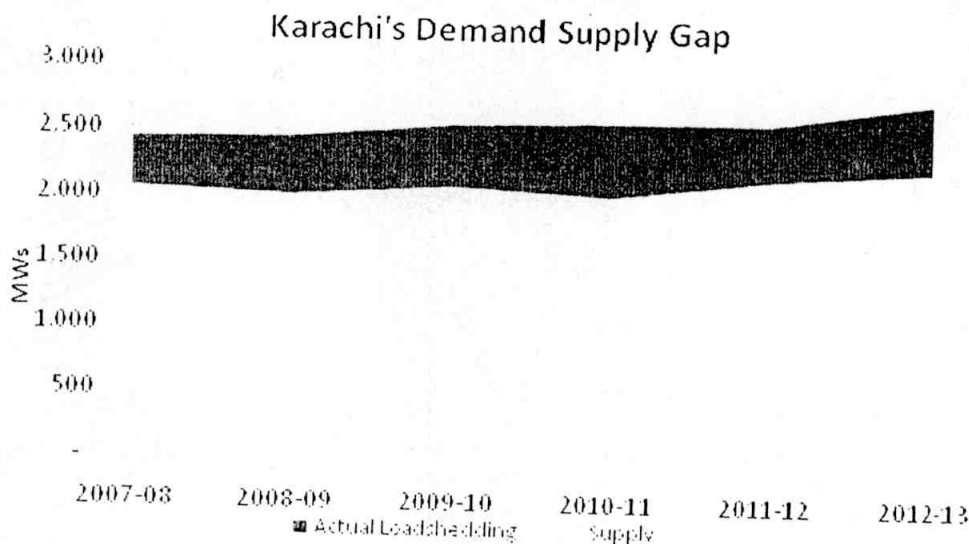
Al-Abbas Sugar Mills Limited ("AASML") is a public limited company listed at the Karachi Stock Exchange (guarantee) limited. The company owns and operates a sugar mill, located at Mirwah Gorchani, with an installed crushing capacity of 7,500 tons per day and processing capacity of molasses to industrial alcohol of 170,000 liters per day. At this location the Company has also installed a 6 MW power plant to cater to the power requirement of sugar and distillery unit.

In addition, AASML also has a Ferro Alloy Furnace and a 15 MW captive coal fired plant located at Dhabeji, Thatta. Although, the coal plant was initially used to provide power to the Ferro Alloy Furnace, the company could not compete with imported alloy from China and subsequently shut down its Ferro Alloy operations. As a result, the power plant became available for sale of electricity to K-Electric under a long term power acquisition contract.



Karachi is the financial and trading hub of Pakistan. The city has two ports which handles Pakistan's sea trade with rest of the world. The availability of port facilities attracted energy related investments over several decades thus positioning Karachi at the mouth of energy corridor of Pakistan. The opportunities offered by Karachi attracted entrepreneurs from all over the country thus leading to a vigorous growth in the field of manufacturing including textiles, chemicals, pharmaceuticals, steel etc. which is besides being the largest commodities market in the country. The significant level of commercial activities provided numerous opportunities which resulted in influx of population to Karachi from various parts of the country. With nearly 20 million people living within 3,527 km², Karachi is easily the largest city in Pakistan.

K-Electric supplies power to about 2.3 million customers including residential, commercial, industrial and agricultural consumers. In terms of population coverage, K-Electric serves around 20 million people within its franchise area. The demand of electricity has been exponentially increasing with the passage of time. With the decrease in gas supply to K-Electric, the only option which is found seemingly open to produce energy, is furnace oil that is 3 times more costly than gas. The substantial decline in gas supply to K-Electric's generation units has led to higher consumption of furnace oil for power generation. The price of furnace oil which used to be a little over Rs. 10,000 per ton a decade ago is currently 7 times higher. Therefore, generation on oil considerably impacted the consumer tariff and working capital of the utility. As the proportion of power generation on furnace oil is increased, the final consumer tariff rises sharply and working capital worsens quickly thus creating phenomenal problems for the utility to continue its service to the large consumer base across various segments of the society.



K-Electric continues to receive applications for new connections on a daily basis. These applications are received from industrial, commercial and residential consumers. At any particular instant, the volume of these applications usually adds up to several hundred MW. K-Electric recorded a peak demand of 2778 MW in June 2013 with a load shed of 532 MW.

In view of the demand-supply gap, K-Electric is pursuing purchase of power from independent power producers as well as captive power sources.

[Signature]

AASML owns a captive power plant with installed capacity of 15 MW gross (available capacity of 13.72 MW gross) which was dedicated for the purpose of Ferro Alloy Furnace. The Ferro Alloy Furnace operations were shutdown since it could not compete in the market with the imported material from China. Hence the power plant was shut down and remained idle. Considering the shortage of power supply in Karachi, it is in the interest of consumers to have this plant operational again with K-Electric purchasing the power.

K-Electric has received a Power Sale Proposal from AASML, which is attached as Annexure-II. The power sale proposal is based on the Plant specifications and provides details forming the basis of their tariff proposal.

Upon receipt of the Power Sale Proposal from AASML, K-Electric intends to enter into a formal arrangement with AASML for acquisition of power on the basis of this proposal subject to the approval from NEPRA. To pursue this objective, K-Electric hereby submits its Power Acquisition Request ("PAR") to NEPRA in accordance with Interim Power Procurement Regulations (IPPR) 2005.

K-Electric hereby requests the following from the Authority:

- Approve the proposed power acquisition by K-Electric from AASML under IPPR 2005;
- Review the proposed Tariff as provided in the Power Sale Proposal and its assessment provided in the Power Acquisition Request and approve Reference Tariff;
- Review the Indexation, Escalation and Adjustment methodology as described in the Power Sale Proposal keeping in perspective the assessment of Power Purchaser as provided in the Power Acquisition Request and approve accordingly;
- Consider any other matters stated in the Power Acquisition Request.

Given the shortage of power in the country and the benefit of this Project in adding additional power to K-Electric's network for the consumers, the Authority is requested to kindly fast track this Power Acquisition Request under the IPPR 2005 so that the K-Electric and AASML should proceed further and formalize the arrangements.



5.0 Project Synopsis

Project Capacity	15 MW (Gross)
Contract Capacity	12.5 MW (Net)
Demand	Peak Demand of 2778 MW with Load Shed of 532 MW in 2013
Interconnectivity	Evacuation at 11 kV to K-Electric. Already connected and adequate
Cost of Interconnection	N/A as already connected
Project Location	Dhabeji, Thatta, Sindh, Pakistan
Plant Type	Steam Turbine
Contract Term	5 Years from Commercial Operations Date
Power Purchaser	K-Electric Limited
Fuel Type	Steam (Non-Coking) Coal
Operation Costs	PKR (000)
	Fuel Cost 857,575
	Other Variable Costs 46,168
	Total Fixed Costs 192,148
	Total Costs 1,095,891
Tariff	PKR 10.01/kWh @100 % Dispatch; PKR 10.32/kWh @ 85% Dispatch
Justification of Rate	This is a Captive Power Unit which has a very low efficiency of 18.5% LHV (net) as opposed to 36% or higher in the case of newer larger capacity coal fired power plants. This causes the FCC to be PKR 7.83 per kWh. However, in the absence of debt financing which is required in case of a brand new plant, the Capacity Charge is much lower than the Upfront Tariff announced by NEPRA. The total tariff is of PKR 10.01 is also much lower than the furnace oil operated IPPs (Tapal Energy and Gul Ahmed Energy) and hence is appropriate.
Concession Documents	Power Acquisition Contract (PAC)
Contract Nature	Take or Pay
Generation License	Available and valid until 18-May-2025
Applicable Framework	Interim Power Procurement Regulations 2005

The coal to be used in the boiler shall be of sub-bituminous quality. The coal specification for use in plant shall be in the following range:

Total Moisture	8 – 10 %
Inherent Moisture	3 – 4 %
Ash Content	8 – 12 %
Volatile Matter	25 – 35 %
Carbon	35 – 45 %
Total Sulphur	0.5 – 1 %
NCV	6000 – 6500 kcal/kg
Grindability (HGI)	55
Size 0 – 50 mm	97 – 99 %

Source:

South Africa

Reference Coal Price:

- FOB USD 73.70 per ton API4 Index (Richards Bay)
- Sea Freight USD 17.00 per ton
- CFR Karachi USD 90.70 per ton – 6000 NAR basis
- Stevedoring, Weightment, Wharfage, KPT dues, Clearing and Forwarding charges – PKR 375 per ton
- Transport Rate – PKR 500 per ton
- I/C opening charges, Insurance, Excise & Taxation, Document Retirement charges, etc. @2.05% applied on CFR value
- Coal handling loss of 1.5%

Storage Facility & Quantity:

Approximately 18,000 MTon storage capacity in a concrete floor yard in front of the boiler. Sufficient to store 45 Days inventory proposed under the agreement.

No Alternate Primary fuel. No Backup Fuel



- The net power delivered at metering point per hour = 12.5 MW
- No. of hours per annum for the plant in operation = 7460 hrs.
- No. of Units Supplied per Annum = $12500 \times 7460 = 93,250,000$ kWh
- 85% Annual Availability

The connection point and metering system already exist between AASML power plant at Dhabeji and K-Electric grid at Dhabeji. AASML will deliver the available electrical energy to K-Electric at 11 KV bus bar located at the interconnection point. The billing meter and check meter are installed on the interconnection point, whereas backup meter is installed on K-Electric Grid station

The expected time of commercial operation of the generation facility shall be 02 months from the date of approval and go ahead given by NEPRA.

Al Abbas Sugar Mills Limited was provided Generation License in relation to the 15 MW coal fired plant by NEPRA effective from May 19, 2010 and valid until May 18, 2025. A copy of the License is attached as Annexure - III.



0-25199576

The fuel cost component of the tariff represents the coal consumption based on net plant heat rate while the plant is operating at 100% load. The main assumptions are as follows:

Net Plant Heat Rate 18,440 Btu per kWh
 Net Efficiency 18.5%
 Reference Coal Price 10,117 PKR per ton
 Calorific Value (NAR) 6,000 kcal per kg
 Exchange rate US\$=1 PKR 98.30
 Fuel Cost Component 7.83 PKR per kWh

efficiency
 37% — 40%

Rs/kwh.

— 4.5233 Fuel

Coal FOB Price Indexation:

local tariff
 8.3911 @ 97.10

9.1100

7.0453

Total — 1-10 year.

Total 11-30 year.

The coal FOB price will be adjusted in accordance with the coal price indices of API4 (Richards Bay) applicable at the time of invoicing and subject to foreign exchange adjustments.

8.4947 @ 98.30

Sea Freight Variations:

Sea freight shall be charges at actual based on the shipper's invoice.

Foreign Financing

Clearing & Forwarding:

To be indexed with the WPI

Transportation:

To be indexed to HSD price

local

Foreign

6.5983

1-10 year

7.1474

11-30 year.

local tariff

9.3967 @ 97.10

9.5128 @ 98.30

This component includes the cost of consumables such as lubricant, chemicals, spares, stores, coal handling at plant site including stacking and piling, minor maintenance and water charges.

Indexation:

The Variable O&M Component of the energy charge will be quarterly indexed to Pakistan Wholesale price index (WPI) (manufacturing), as notified by the Pakistan Federal Bureau of Statistics.

Cost associated with ash handling system includes ash collection system for both dry and wet ash, shifting to ash storage area and then ash dumping / disposal systems. These costs include acquisition of ash disposal sites and its maintenance.

[Signature]

Indexation:

The Ash Removal Component of the energy charge will be quarterly indexed to Pakistan Wholesale price index (WPI) (manufacturing), as notified by the Pakistan Federal Bureau of Statistics.

The fixed O&M cost component represents (a) cost of staff for operation & maintenance of the plant (b) the cost of spares and services for routine maintenance and major overhaul (c) third party services; and (d) administrative cost and office expenses.

Indexation:

The Fixed O&M component will be quarterly indexed to Pakistan Wholesale price index ("WPI") (manufacturing), as notified by the Pakistan Federal Bureau of statistics.

The cost of working capital is based on investment in 45 Days coal inventory and Energy Purchase Price outstanding for 25 Days.

Working Capital Charge

Investment in Inventory (Days)	45
Dispatch Factor	100%
Dispatch at 100% in (kWh)	13,500,000
Coal Consumption in (tons)	10,451
Total Value of Coal (PKR)	105,728,434
Energy Purchase Price (PKR/kWh)	8.25
Invoice Outstanding (Days)	25
EPP Invoice O/S for 25 Days	61,900,211
Total Working Capital (1+2)	167,628,645
KIBOR	10.16%
Margin	2.00%
Working Capital Rate	12.16%
Working Capital Charge	20,383,643

Indexation:

Changes in 3 months KIBOR and variation in fuel price will be adjusted.

This includes insurance of Plant and Machinery, stock in trade (coal) and stores and spares. It also includes terrorism etc.

Indexation:

The insurance component will be quarterly indexed to Pakistan Wholesale Price Index (WPI) (Manufacturing), as notified by the Pakistan Federal Bureau of Statistics.

- Reference Exchange Rate = 98.30 PKR/USD
- Reference Wholesale Price Index ("WPI") as on June 2014 = 214.6
- Reference ISD Price as on 1-Jul-2014 = PKR 109.34 per Litre



The K-Electric intends to purchase power under a Power Acquisition Contract with AASML which shall have a Take or Pay arrangement. The summary of the costs submitted by AASML is reproduced below:

Description	Rs. In 000	Per kWh
Variable Charges		
Fuel - Coal Consumed	857,575	7.83
Ash and Removal charges	24,090	0.22
Variable O&M	22,078	0.20
Spares and Stores	10,318	0.09
Water	11,760	0.11
Total Variable Charges	903,743	8.25
Capacity Charges		
-Working Capital Charges	20,384	0.19
-Insurance Expenses	11,190	0.10
-Fixed Operation and Maintenance Charges		
Salaries & Wages	33,600	0.31
Stores & Spares Consumed	24,074	0.22
Third Party Services	3,900	0.04
Administrative Expenses	8,250	0.08
	69,824	0.64
-Return on Investments	90,750	0.83
Total Fixed Charges	192,148	1.75
Total Fixed & Variable Charges	238,316	2.18
Grand Total	1,095,891	10.01

CALCULATION OF CAPACITY PURCHASE PRICE


Total cost in Rs.	1,095,891,119
Quantity produced in kWh	109,500,000
Total charge per kWh	PKR 10.01

9-3967.

Reasonably correct to 0.85.

Year	Fuel Component	Ash Removal	Variable O&M	Total EPP	Fixed O&M	Insurance	Working Capital Charges	Return on Investment	Total CPP	Total Tariff @ 100%	Capacity Charge @ 85%	Total Tariff Rs/kWh at 85%
1	7.83	0.22	0.20	8.25	0.64	0.10	0.19	0.83	1.75	10.01	2.06	10.32
2	7.83	0.22	0.20	8.25	0.64	0.10	0.19	0.83	1.75	10.01	2.06	10.32
3	7.83	0.22	0.20	8.25	0.64	0.10	0.19	0.83	1.75	10.01	2.06	10.32
4	7.83	0.22	0.20	8.25	0.64	0.10	0.19	0.83	1.75	10.01	2.06	10.32
5	7.83	0.22	0.20	8.25	0.64	0.10	0.19	0.83	1.75	10.01	2.06	10.32

Submitted:



Adnan Rizwi
Director
K-Electric Limited

Net Capacity (MW)	12.5
Technology	Coal Fired boiler
Fuel	Steam (Non-Coking) Coal
Whether Forms part of least cost plan	N/A
Availability of Power/Energy	85%
Year of Commissioning	2014
Expected rate of power to be acquired	Rs. 10.01 per kWh
KE Demand	2778 MW
Location	Dhabeji, Thatta
Proposed Grid for interconnection	Dhabeji Grid Station
Approximate Distance	at site
Augmentation Required in Grid	None
Augmentation Required in transmission network	None
Estimated costs if augmentation required	None
Steps taken or required for transmission augmentation	None
Any other information	None



Interconnection Point # 1

Grid Identification:

Location

Voltage

Capacity in MVA

Peak Demand at # 1

BALDIA / NKI

BALDIA

Baldia

220kV

950MVA

335MW

Interconnection Point # 2

Grid Identification:

Location

Voltage

Capacity in MVA

Peak Demand at # 2

KDA / NKI

KDA

Scheme 33

220kV

950MVA

215MW

Interconnection Point # 3

Grid Identification:

Location

Voltage

Capacity in MVA

Peak Demand at # 3

KDA / JAMSHORO

KDA

Scheme 33

220kV

750MVA

100MW



2007-08	Peak Demand (MW)	2,443
	Actual Load shed in the evening peak demands	387 MW (10-06-2008)
2008-09	Peak Demand (MW)	2,462
	Actual Load shed in the evening peak demands	450 MW (27-05-2009)
2009-10	Peak Demand (MW)	2,562
	Actual Load shed in the evening peak demands	480 MW (29-06-2010)
2010-11	Peak Demand (MW)	2,591
	Actual Load shed in the evening peak demands	570 MW (08-06-2011)
2011-12	Peak Demand (MW)	2,596
	Actual Load shed in the evening peak demands	433 MW (22-05-2012)
2012-13	Peak Demand (MW)	2,778
	Actual Load shed in the evening peak demands	532 MW (19-06-2013)



11/10/00

11/10/00 11/10/00 11/10/00 11/10/00 11/10/00

Licensee: The General Agent Licensee of Al Abbas Sugar Mills Limited



National Electric Power Regulatory Authority

Islamic Republic of Pakistan

2nd Floor, OPF Building, G-5/2, Islamabad

Ph : 9206500, 9207200, Fax : 9210215

E-mail: registrar@nepra.org.pk

Registrar

No. NEPRA/R/LAG-158/3490-92

May 19, 2010

Mr. Shunaid Qureshi
Group Managing Director
Al-Abbas Sugar Mills Limited
Perdesi House, Survey N. 2/1, R.Y.16,
Old Queens Road, Karachi.-74400


Subject: **Generation Licence No. SGC/58/2010**
Licence Application No. LAG-158
Al-Abbas Sugar Mills Limited (AASML)

Reference: *Your application received vide letter no. AASML/23/2010 dated 19.01.2010*

Enclosed please find herewith Generation Licence No. SGC/58/2010 granted by National Electric Power Regulatory Authority (NEPRA) to Al-Abbas Sugar Mills Limited (AASML), pursuant to Section 15 of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997). Further, the determination of the Authority in the subject matter is also attached.

2. Please quote above mentioned Generation Licence No. for future correspondence.

Enclosure: **Generation Licence**
(SGC/58/2010)


(Syed Safeer Hussain)

Copy to:

1. Chief Executive Officer, Karachi Electric Supply Company (KESCL), 7th floor, State Life Building #11, Abdullah Haroon Road, Karachi.
2. Director General, Pakistan Environmental Protection Agency, House No. 311, Main Margalla Road, F-11/3, Islamabad.

**National Electric Power Regulatory Authority
(NEPRA)**

Islamabad – Pakistan

GENERATION LICENCE

No. SGC/58/2010

In exercise of the Powers conferred upon the National Electric Power Regulatory Authority (NEPRA) under Section 15 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (XL of 1997), the Authority hereby grants a Generation Licence to:

AL-ABBAS SUGAR MILLS LIMITED

Incorporated under the Companies Ordinance, 1984
Under Certificate of Incorporation

No. K-02753 of 1919, dated May 02, 1991

For its Plant located at Dhabeji District Thatta, Sindh

(Installed Capacity: 15.00 MW Gross ISO)

to engage in generation business subject to and in accordance with the Articles of this Licence.

Given under my hand this 19th day of May, Two Thousand & Ten, and expires on 18th day of May, Two Thousand & Twenty Five.

Registrar
Registrar



AL-ABBAS SUGAR MILLS LIMITED

PROPOSAL FOR POWER
TARIFF OF 15 MW POWER
PLANT LOCATED AT
DHABEJI THATTA

TABLE OF CONTENT OF DRAFT POWER SALE PROPOSAL

S.NO	DESCRIPTION
1.	Ownership of the project
2.	Reasons for proposed supply of power
3.	Description of Plant & Machinery
4.	Description of primary fuel
5.	Description of alternative primary fuel
6.	The firm capacity & annual plant availability
7.	Description of connection point & metering system
8.	Expected time of commercial operation
9.	Description of human resource engagement
10.	Scope of operation and management of plant
11.	Scope of maintenance of the plant
12.	Description of nature of power acquisition contract
13.	Working of fuel cost component
14.	Cost estimates for variable O & M component
15.	Cost estimates for fixed O & M component
16.	Working capital charges
17.	Insurance expenses
18.	Return on asset workings and rationale for charging
19.	Tariff assumptions
20.	Tariff sheet
21.	Indexation mechanism for various components of the tariff

1. OWNERSHIP OF THE PROJECT:

The power plant is owned by Al Abbas Sugar Mills Limited. It is listed on the Karachi Stock Exchange and was incorporated in 1991. The sugar mill is located in Mirwah near District Mirpurkhas.

In 1993 the mill started its operation with cane crushing capacity of 4000 tons per day. In 1996-97, the crushing capacity was enhanced to 5000 tpd. In 2009, crushing capacity was increased to 7500 tpd.

In 1999, a distillery unit of 85000 liters day was set up which was enhanced to 170,000 liters per day.

In addition AASML has a Ferro alloy plant and 15 MW coal fired power plant located at Dhabeji, District Thatta.

Profile of the Directors of the company:

Chairman: Mr. Iqbal Usman

He is by profession a fellow member of institute of Chartered Accountant of Pakistan. He is a member of Karachi Stock Exchange.

At present he is involved in the following companies in various capacities:

Chairman: Acme Mills (pvt) Ltd.

Directorship in the following companies:

- Suraj Cotton Mills Ltd.
- BMA asset Management
- Icon Global (pvt) Ltd

Chief Executive: Mr. Shunaid Qureshi

He is by profession an engineer. He was gold medalist with three Gold Medals in engineering. At present he is Chairman of Pakistan Ethanol Manufacturers Association. He was Chairman of Pakistan Sugar Mills Association for the term 2007-2008. He endured his services as Chairman of F.P.P.C.I. Standing committee on WAPDA Affairs for the term ending Dec. 2010.

Directorship in the following companies:

- Al Abbas Energy Limited
- Falcon I pvt. Ltd.
- HUM TV- Eye Television Network

Executive Director: Mr. Asim Ghani

He has done his Master's in Business Administration. He is playing key role in the affairs of the AASML Tank Terminal, Ferro Alloy plant and power plant of AASML Dhabeji Unit.

2. REASONS FOR PROPOSED SUPPLY OF POWER TO K-ELECTRIC:

Our power plant is a captive power plant. It was being used to supply power to 15 MW Ferro Alloy Furnace. Since we could not compete with the import of Ferro Alloy from China, the plants was shut down and remain idle.

As there is power shortage in our country, it is better to utilize the power plants which are idle due to some reasons. In this way, it will be beneficial for K-Electric as well as for Al Abbas Sugar Mill Ltd.

3. Description of the plant and machinery:

- Boiler:

1. Make: Takuma Japan
2. Type: N- 1800
3. Superheated steam flow at MCR : 58600 kg/hr
4. Superheated steam working pressure: 83 kg/cm²
5. Superheated steam temperature at MCR: 480°C
6. Primary fuel: Coal

- Steam Turbine:

1. Make: Shin Nippon, Japan
2. Type: C8-R13-R
3. Serial Number: 17219
4. Turbine Layout: HP 9 stages
LP 4 stages
5. Output: 15000 kw (Generator terminal)
6. Turbine speed: 5027 rpm
7. Over speed trip (T/G): 5580/1665 rpm

- Turbine operating conditions

1. Inlet steam pressure (Normal): 80 kg/cm²
2. Inlet steam temperature (Normal): 465°C
3. Exhaust steam pressure (Normal): 685 mmHg V
4. Max. inlet steam flow: 58600 kg/hr.
5. Max. Exhaust steam temperature: 150°C

- Generator:

1. Make: Toshiba, Japan
2. Type: TABL, serial no. 8613017
3. KVA: 18750
4. speed: 1500 rpm
5. Amperes: 985
6. Volts: 11000
7. Hz: 50
8. Power factor: 0.8
9. Rating: Continuous
10. Over speed: 1800 rpm

- | | |
|-----------------------|-------|
| 11. Excitation Volts: | 155 |
| 12. Insulation class: | F |
| 13. Protection: | IP 44 |

▪ **Specification of 11KV switchgear:**

- | | |
|------------------------------------|----------------------------------|
| 1. Rating: | Continuous |
| 2. Max. system Voltage: | 12KV |
| 3. Nominal Voltage: | 11 KV |
| 4. Frequency: | 50 Hz |
| 5. Main bus Current: | 600, 1200 A |
| 6. Branch bus current: | 600, 1200 A |
| 7. Withstand Voltage: | 28 KV for 01 minute (sym.,rms) |
| 8. Impulse withstand voltage: | 95 KV |
| 9. Short circuit breaking current: | 25 KA(sym, rms) |
| 10. Short time withstand current: | 25KA for 01 second |
| 11. Degree of protection: | IP2X |

▪ **Boiler auxiliaries:**

1. **Deaerator:**

- Max. capacity: 80,000kg/hr
- Operating pressure: 3 kg/cm²
- Inlet feed water temp.: 50 °C
- Outlet feed water temp.: 143°C

2. **Feed water pump:**

- Capacity: 80,000 kg/hr
- Discharge pressure: 95 kg/cm²
- Feed water temp.: 143°C
- Motor: 360 kw
- Speed: 3000 rpm

3. **Deaerator feed water pump:**

- Capacity: 40,000 kg/hr
- Pressure: 6 kg/cm²
- Motor: 11 kw
- Speed: 3000 rpm

4. **Economiser:**

- Heating surface: 370 m²

- Inlet feed water temp.: 143°C
- Outlet feed water temp.: 170°C

5. Air preheater:

- Heating surface: 490°C
- Inlet air temp.: 30 °C
- Outlet air temp.: 130°C
- Inlet gas temp.: 385°C
- Outlet gas temp.: 225°C

6. Coal combustion equipment:

- Moving grate with mechanical spreader
- Grate Area: 41.6 m²

7. Forced draft fan:

- Capacity: 1500 m³/min
- Head: 230 mm Aq.
- Motor: 90 kw, 1500 rpm

8. Secondary draft fan:

- Capacity: 150 m³/ min
- Head: 250 mm Aq.
- Motor: 11 kw, 1500 rpm

9. Induced draft fan:

- Capacity: 2800 m³/hr
- Head: 230 mm Aq.
- Motor: 200 kw, 1000 rpm

10. Dust Collector:

- Type: Multi cyclone
- Capacity: 2500 m³/min

11. Soot blowers:

- For super heater: Retractable type
- For tube bank: Rotary manual

12. Feed water treatment plant:

- Capacity: 5 m³/hr
- Raw water storage / settling tank
- Raw water pumps
- Sand filters
- R.O. plant
- Feed pumps
- Permeate water pumps
- Anion / Cation polisher
- Permeate water storage tank

TURBINE AUXILIARIES:

1. Surface condenser:

- Surface Area: 1550 m²
- No. of tubes: 2905 nos.

2. Reduction Gear.

- Speed Ratio: 1: 3.351
- Type: Double Helical
- Transmitted power: 15000 kw

3. Turning device:

- Output: 11 kw
- Turning speed: 50 rpm

4. Coupling:

- Type: Diaphragm
- Transmitted power: 15000 kw

5. Oil system:

- A.C Oil pumps: 54m³/hr, 9.5 kg/cm²
- D.C. emergency oil pump: 18 m³/hr, 1200 rpm, 1 kg/ cm²
- Oil coolers: 50 m²
- Oil Tank: 6000 liters

6. Condensate pumps:

- Capacity
- Pressure
- Motor 22 kw 1500 rpm

7. Gland condenser:

- Surface area: 3 m²

8. Exhaust fan:

- Capacity: 4 m³/min

a. Ejectors

- Cooling surface area: 4.5 m²
- Vacuum: -685 mm Hg

9. Cooling Towers:

- Type: Forced draft counter flow
- No. of cells: 11 nos.
- Capacity: 5000 m³/hr

10. Main cooling water pumps:

- Capacity: 4600 m³/hr
- Head: 2.5 kg/cm²
- Working pumps: 02
- Standby: 01

11. Aux. cooling water pumps:

- Capacity: 100 m³/hr
- Head: 6 kg/cm²
- Working: 01
- Standby: 01

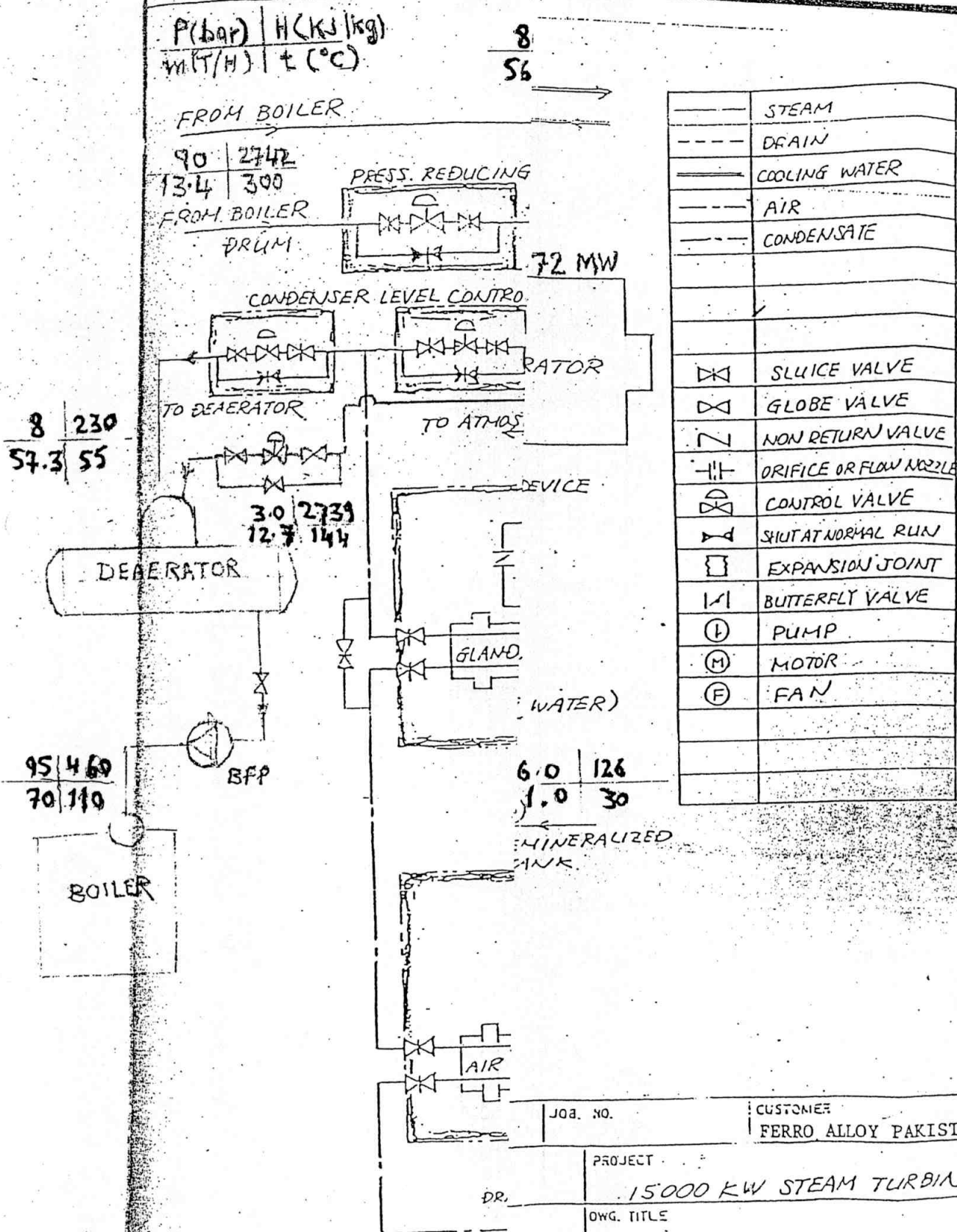
12. Gross output at Generation terminal: 13.72 MW

13. Auxiliary Consumption: 1.2 MW

14. Efficiency of boiler: 80 %

15. Efficiency of thermal cycle: 25.5%

16. Net efficiency of the project at metering point: 18.5 %



STEAM CYC

タビシ 金受振器元只便本宗院因

TURBO GENERATOR FLOW SHEET
STEAM AND CONDENSATE

SEIN NIPPON
MACHINERY CO., LTD.

ET60-211

4. DESCRIPTION OF PRIMARY FUEL:

a. Details of fuel specifications:

The coal specification for use in the plant shall be in the following range:

Total moisture	8-10%
Inherent moisture	3-4%
Ash content	8-12%
Volatile matter	25-35%
Carbon	35-45%
Total sculpture	0.5-1%
NCV	6000-6500 kcal/ kg
Grind ability (HGL)	55
Size 0-50 mm	97-99%

b. Procurement sources of the fuel including reference price:

Source: South Africa

Reference price: USD 91 per MT CFR Karachi on 6000 kcal/ kg NAR bases

c. Reference sea freight:

Included in above reference price

d. Reference port clearing and handling charges, inland logistic:

Stevedoring rate (including weighment, wharfage, KPT dues, clearing and forwarding charges) PKR 375 PMT

Transport rate: PKR 500 PMT (estimated)

e. Storage facility and quantity:

Storage facility is concrete floor yard in front of the boiler.

Approx. 18000 tons of coal can be stored.

5. Description of alternate primary fuel:

There is no alternate primary fuel or backup fuel.

6. The firm capacity (Net power delivered at metering point per hour)

The net power delivered at metering point per hour = 12.5 MW

Annual plant Availability:

- No. of hours per annum for the plant in operation = 7460 hrs.
- No. of units supplied per annum = $12500 \times 7460 = 93,250,000$ kwh

7. Description of connection point and metering system:

The connection point and metering system already exist between Al Abbas power plant at Dhabeji and K-Electric grid at Dhabeji.

AASML deliver the available electrical energy to K-Electric at 11 KV bus bar located at the interconnection point.

The billing meter and check meter are installed on the interconnection point, whereas backup meter is installed on K-Electric Grid station

8. Expected time of commercial operation of the generation facility:

The expected time of commercial operation of the generation facility shall be 02 months. Time line for the commercial operation of the plant is attached herewith.

		Jul 13, '14							Jul 20, '14							Jul 27, '14							Aug 3, '14							
		S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
ID		Task Name																												Duration
1		Staff hire & Coal purchase																												60 days
2		Maint. of water pumps& line																												7 days
3		Electric supply to pumps																												3 days
4		Maintenance of R.O. plant																												7 days
5		Maintenance of sand filters																												7 days
6		Mainten. of Water tank.																												5 days
7		Clean FW tank & deaerator																												5 days
8		Permeate water storage																												5 days
9		Clean tubes boiler,Eco,AH																												15 days
10		Maint. boiler feed pump																												3 days
11		Maint. of boiler valves																												10 days
12		Hydro test of boiler																												10 days
13		Maintenance of Fans																												7 days
14		Maint. of boiler grate																												7 days
15		Maint. of Coal spreaders																												3 days
16		Maint. of paddle wheels																												2 days
17		Maint. of coal conveyor																												10 days
18		Maint. Of Ash conveyor																												7 days
19		Maint. Of boiler refractory																												7 days
20		Maint. Of coal crusher																												3 days
21		Maint. Of coal feeders																												3 days
22		Maint. Of soot Reinjection																												2 days
23		Maint. Of steam turbine																												10 days
24		Clean surface condenser																												10 days
25		Clean oil cooler																												1 day
26		Clean gland condenser																												1 day
27		Clean oil filters																												1 day
28		Clean steam filters																												1 day
29		Clean vacuum ejectors																												1 day
30		Clean generator cooler																												3 days
31		Maint. Of st. Throttle valve																												1 day
32		Maint. Of over speed valve																												1 day
33		Maint. Of Emergency valve																												1 day
34		Maint. Of turbo feed pump																												3 days
35		Maint. Of cooling tower																												15 days
36		Maint. Of cooling pumps																												3 days
37		Maint. Of generator																												5 days
38		Maint. Of control panels																												3 days
39		Maint. Of fan VFD drives																												2 days
40		Maint. Of NGR panel																												2 days
41		Calibration of control valves																												3 days
42		Calibr. Of transmitters																												2 days
43		Calibr. Of Press. Switches																												2 days
44		Calibr. RTD / temp. switches																												2 days
45		Maint. control air Compressor																												3 days
46		Maint. Of boiler panel																												3 days
47		Maint. Of Elec. Feeders																												2 days
48		Testing supply cables																												2 days
49		Boiler Firing /chemical boiling																												6 days
50		Safety valves setting																												3 days
51		Steam Line blow cleaning																												3 days
52		Turbie start up /bring on line																												5 days

Project: AASMLPOWER
Date: Tue 5/27/14

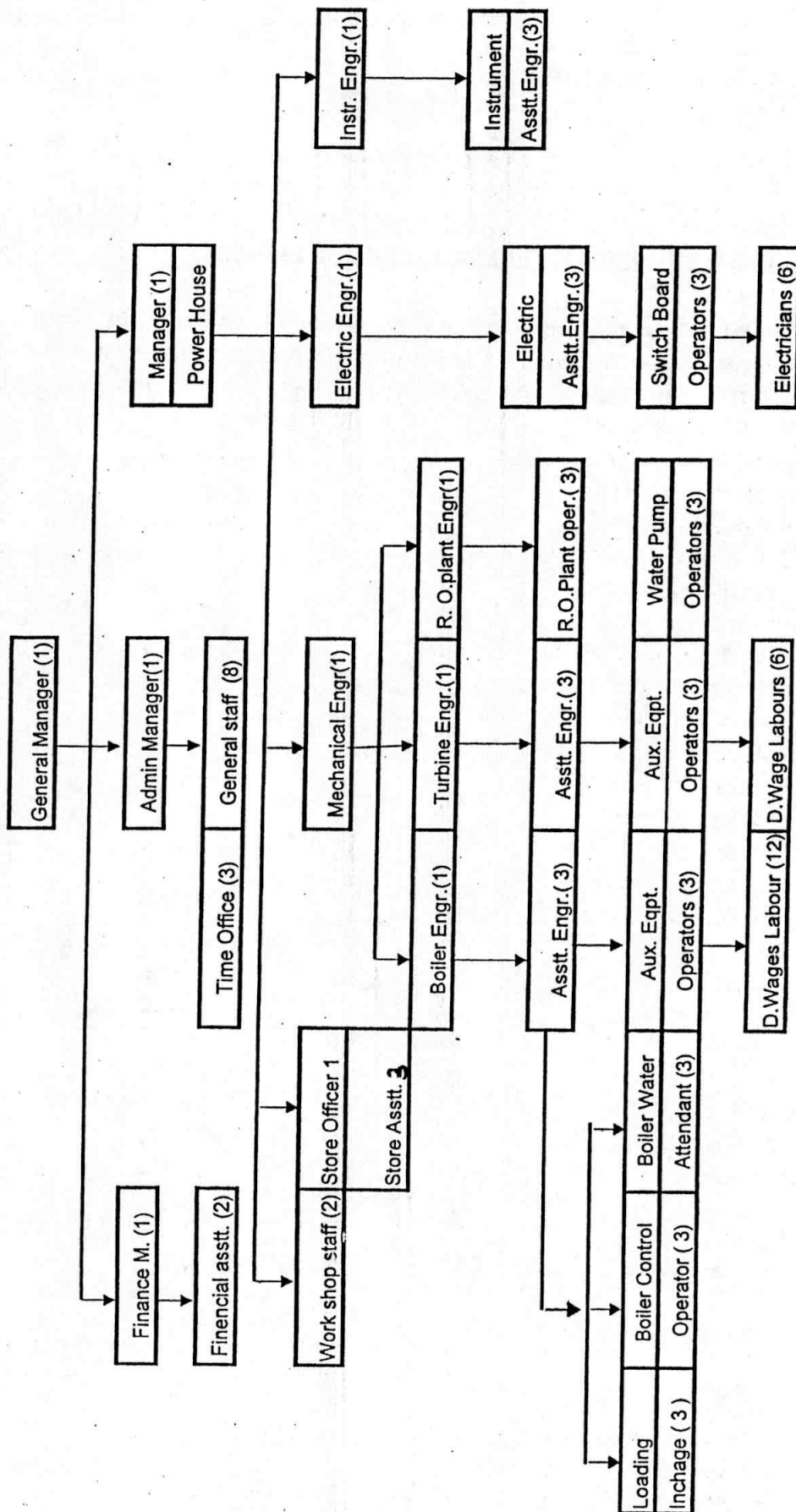
Task
Split

9. Description of human resource engagement:

The attached organogram describe the full team engagement by designation and numbers. Also attached is the list of persons engaged by designation and the salaries of the team members.

```

graph TD
    GM[General Manager (1)] --> FM[Finance M. (1)]
    GM --> AM[Admin Manager (1)]
    GM --> MPH[Manager (1) Power House]
    
    AM --> TO[Time Office (3)]
    AM --> GS[General staff (8)]
    
    MPH --> EE[Electric Engr. (1)]
    MPH --> IE[Instr. Engr. (1)]
    MPH --> IAE[Instrument Asstt. Engr. (3)]
    
    EE --> EAE[Electric Asstt. Engr. (3)]
    EAE --> SBO[Switch Board Operators (3)]
    SBO --> EL[Electricians (6)]
    
    IE --> IAE
    
    AM --> ME[Mechanical Engr. (1)]
    ME --> BE[Boiler Engr. (1)]
    ME --> TE[Turbine Engr. (1)]
    ME --> ROPE[R. O. plant Engr. (1)]
    
    BE --> AE1[Asstt. Engr. (3)]
    AE1 --> AE1_Ops[Aux. Eqpt. Operators (3)]
    AE1 --> AE1_WP[Water Pump Operators (3)]
    
    TE --> AE2[Asstt. Engr. (3)]
    AE2 --> AE2_Ops[Aux. Eqpt. Operators (3)]
    AE2 --> AE2_WP[Water Pump Operators (3)]
    
    ROPE --> AE3[Asstt. Engr. (3)]
    AE3 --> AE3_Ops[Aux. Eqpt. Operators (3)]
    AE3 --> AE3_WP[Water Pump Operators (3)]
    
    AE1_Ops --> DWL1[D. Wages Labour (12)]
    AE1_Ops --> DWL2[D. Wage Labours (6)]
    
    AE2_Ops --> DWL1
    AE2_Ops --> DWL2
    
    AE3_Ops --> DWL1
    AE3_Ops --> DWL2
    
    FM --> FAS[Financial asstt. (2)]
    
    MPH --> WSS[Work shop staff (2)]
    WSS --> SO1[Store Officer 1]
    SO1 --> SAS[Store Asstt. 3]
    
    MPH --> L[Loading Incharge (3)]
    L --> BC[Boiler Control Operator (3)]
    BC --> BW[Boiler Water Attendant (3)]
    BW --> WP[Water Pump Operators (3)]
    WP --> DWL1
    WP --> DWL2
  
```



AL-ABBAS SUGAR MILLS LIMITED
MONTHLY SALARY STRUCTURE
POWER SEGMENTS

S.NO	DESIGNATION	NO. OF PERSONS	SALARY	TOTAL SALARIES
1	General Manager	1	250,000	250,000
2	Admin Manager	1	65,000	65,000
3	Finance Manger	1	120,000	120,000
4	Finance Assisstant	2	40,000	80,000
5	Power H. Manager	1	180,000	180,000
6	Mechanical Engineer	1	150,000	150,000
7	Electrical Engineer	1	150,000	150,000
8	Instrument Engineer	1	100,000	100,000
9	Boiler Engineer	1	100,000	100,000
10	Turbine Engineer	1	150,000	150,000
11	Asstt. Boiler Engineer	3	35,000	105,000
12	Asstt. Electrical Engineer	3	35,000	105,000
13	Asstt. Instrument Engineer	3	35,000	105,000
14	Asstt. turbine Engineer	3	35,000	105,000
15	Switch Board operator	3	18,000	54,000
16	Boiler Controal operator	3	18,000	54,000
17	Boiler water attendant	3	15,000	45,000
18	Loading Incharge	3	15,000	45,000
19	Electrician	6	15,000	90,000
20	Aux. Eqpt operator (B)	3	25,000	75,000
21	Aux. Eqpt operator (T)	3	25,000	75,000
22	R.O plant Engineer	1	50,000	50,000
23	R.O plant Operation	3	20,000	60,000
24	Water pump opearator	3	15,000	45,000
25	Mechanist	1	20,000	20,000
26	Welder	1	15,000	15,000
27	Time office Clerk	3	13,000	39,000
28	Mess staff	4	12,000	48,000
29	Sweepers	2	10,000	20,000
30	Sr. Store officer	1	60,000	60,000
31	Store Assisstant	3	12,000	36,000
32	Weigh Bridge operator	2	12,000	24,000
33	Daily wages (Boiler)	12	10,000	120,000
34	Daily wages (Turbine)	6	10,000	60,000
TOTAL		89		2,800,000
person in General shift		17		
24 person in each shift		72		
Total No. of employees		89		

10. Scope of operations and management of the plant:

AASML shall operate and maintain its facility according to Prudent Electric practices and Laws of Pakistan and shall maintain power factor 0.8 lagging at its generator terminals. Hourly records of power factor, frequency, kWh, kvarh and fuel consumption shall be maintained.

On 1st November of each calendar year, K-Electric shall submit to AASML forecast of electrical energy required for 12 months in the following year. The forecast will indicate tentative schedule outage period. Both parties shall mutually discuss, revise and agree on the forecast latest by 15th of December. Once finalized, the implementation of the schedule may only be varied through mutual agreement.

AASML is allowed to take max. of 02 schedule outages to be carried out during maintenance months of a contract year. However the facility may take 01 schedule outage during non-maintenance month for a period of 10 days.

AASML shall maintain records of fuel, consumables and spare parts inventory. AASML shall keep records of all maintenance work to be carried out at the facility.

11. SCOPE OF MAINTENANCE OF THE POWER PLANT OVER ITS LIFE CYCLE:

AASML shall be responsible for all of AASML'S Facilities upstream of the energy delivery point. Preventive maintenance of the plant machinery shall be carried out and records shall be maintained.

In case of emergencies such as breakdown of short duration, the plant shall be restored in the shortest possible time.

12. DESCRIPTION OF NATURE OF POWER ACQUISITION CONTRACT:

The nature of power acquisition contract to supply electrical energy shall be on a **take or pay basis**. AASML undertakes to deliver Electrical energy in conformance with the dispatch notification of K-Electric at all times during the tenure of the contract. AASML will make available for dispatch the contract capacity of the facility to K-Electric at all times except in the event of a scheduled outage.

13. WORKING OF FUEL COST COMPONENT:

The fuel cost component of the tariff represents the coal consumption based on average net heat rate while the plant is operating at 100% load. The main assumptions are as follows:

Fuel	Coal
Net heat rate	18440 Btu / kwh
Net efficiency	18.5%
Reference coal price	10,117 Rs. / ton
Calorific value (NAR)	6000 kcal / kg
Exchange rate US\$=1	Rs. 98.30
Fuel cost	7.83 Rs. / kwh

Indexation and Escalation:

The fuel cost component will be adjusted in accordance with the price variation of fuel using variation of international coal price indices applicable at the time of invoicing. This component will also be subject to foreign exchange adjustment and heat rate degradation factor as per provision in the agreement.

Fuel price Variation:

The variable cost of Energy Charge relating to the fuel cost component shall be adjusted on account of the coal price variation as and when coal import price and other cost are changed. The basis for future price for indexation will be linked to 100% TFS AP14 pricing system on monthly / quarterly /half yearly / yearly basis adjusted for NAR of 6000 kcal / kg, sea freight, marine insurance and other related charges of letter of credit including clearing, forwarding, wharfage, transportation and other charges will be adjusted at actual.

AL-ABBAS SUGAR MILLS LTD

COAL COST PER TONS SOUTH AFRICAN					
L/C NO	QTY	*RATE USD	VALUE	RATE	EQUIVALENT PKR
	10,000	90.7	907,000	98.30	89,158,100
<u>DETAIL OF CHARGES</u>					
L/C Opeing Charges		0.75%	0.0075	668,686	
Insurance		0.3%	0.003	267,474	
Excise & Taxation			0.0085	757,844	
Mise Expenses		0.85%		10,000	
Port Expenses @ 375 Per Ton		2	375.00	3,750,000	
Document Retirment Charges		0.15%	0.0015	133,737	
					5,587,7
					94,745,841
					94,745,841
					9,475
1.5% Handling Loss	150			1,421,188	142
					9,617
Per Ton Cost					9,617
Transportation			500		500
					10,116.70
*PRICE BREAK-UP OF COAL					Amont in \$
FOB price as per Richard Bay					73.70
Freight charges					17.00
					90.70



PLATTS
McGRAW HILL FINANCIAL

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COAL TRADER INTERNATIONAL

INCORPORATING INTERNATIONAL COAL REPORT

Volume 14 / Issue 113 / Friday, June 13, 2014

www.twitter.com/PlattsCoal

CIF ARA market firms on higher paper despite multi-year low June trade

London—European-delivered CIF ARA thermal coal spot prices recovered marginal value Friday following a firmer paper market, despite an earlier multi-year low spot trade, sources said.

Platts assessed the price of CIF ARA thermal coal basis 6,000 kcal/kg NAR and for delivery within the next 15-60 days at \$72.70/mt, 40 cents up on the day and breaking a three-day stalemate. The price was also 5 cents higher on the week.

A multi-origin 50,000 mt June DES Rotterdam cargo with US optionality traded through the globalCOAL electronic platform at \$69/mt Friday, \$1.15 under the last trade on June 5 and at the lowest level since November 12, 2009. Sources

(continued on page 10)

Indonesian thermal coal prices down on new Chinese credit, import rules

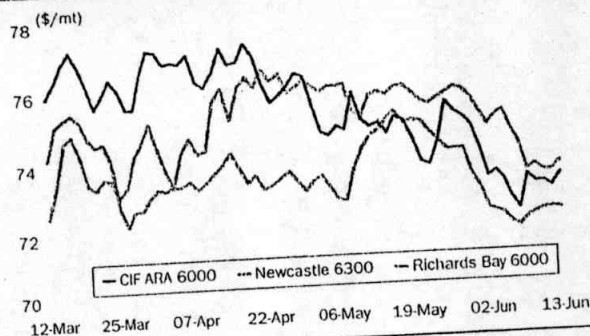
Singapore—Indonesian spot thermal coal prices sagged Friday as China's credit restrictions, stricter regulations on imported coal quality to address environmental problems, an expected cut on Shenhua's price for domestic coal, and India's limited demand all combined to create a more bearish market, sources said.

Platts assessed the price of FOB Kalimantan 4,200 kcal/kg GAR coal at \$37/mt, down 30 cents on the day, and FOB Kalimantan 3,800 kcal/kg GAR at \$31.30/mt, unchanged from Thursday.

A source from a Chinese trading company said that it was simply buying now on a "hand-to-mouth" basis. He said

(continued on page 10)

Daily Coal Price Trends (Physical)



China Coal Index Physical Coal Benchmark Prices, June 13

	CV (kcal/kg)	Basis	\$/mt	Chg	Yuan/mt	Chg
CCI 1 (FOB Qinhuangdao)	5,500	NAR	84.14	-0.23	517.50*	-1.50
CCI 8 (CFR South China)	5,500	NAR	71.00	-0.10	436.67	-0.71

*includes VAT at 17%

Platts Physical Thermal Coal Assessments, June 13

	CV (kcal/kg)	Basis	\$/mt	Chg	Yuan/mt	Chg
Daily Prompt Prices						
CFR South China	5,500	NAR	71.00	0.00	436.67	-0.09
FOB Qinhuangdao	5,500	NAR	71.70	-0.15	441.00	-1.00
FOB Newcastle	5,500	NAR	62.70	0.00		
— Ash Differential (net value)*			0.53			
FOB Newcastle	6,300	GAR	71.90	-0.25		
FOB Kalimantan	4,200	GAR	37.00	-0.30		
FOB Kalimantan	3,800	GAR	31.30	0.00		
CFR India West	4,200	GAR	47.30	-0.30		
CFR India West	3,800	GAR	43.70	-0.50		
CFR India East	4,200	GAR	46.30	-0.30		
CFR India East	3,800	GAR	41.80	0.00		
CIF ARA	6,000	NAR	72.70	0.40		
FOB Richards Bay	6,000	NAR	73.70	0.15		
FOB Richards Bay	5,500	NAR	66.30	0.00		

*Per 1% Ash (air dried)

Daily 90-Day Prices

CIF ARA	6,000	NAR	73.30	0.35
FOB Richards Bay	6,000	NAR	73.65	0.25
FOB Newcastle	6,300	GAR	72.30	-0.05
FOB Kalimantan	5,900	GAR	66.80	0.00
FOB Kalimantan	5,000	GAR	55.20	0.00
FOB ARA Barge	6,000	NAR	75.80	0.35
CFR India West	6,300	GAR	88.25	0.00
CFR India West	5,900	GAR	77.30	0.00
CFR India West	5,000	GAR	65.50	0.00
CFR India East	6,300	GAR	88.00	0.00
CFR India East	5,900	GAR	76.20	0.00
CFR India East	5,000	GAR	64.50	0.00

Weekly 90-day Prices (June 13)

FOB Barge ARA ^	6,000	NAR	75.65	0.15
FOB Colombia	6,000	NAR	63.85	-0.75
Poland Baltic	6,300	GAR	69.40	-1.10
Russian Baltic	6,400	GAR	69.55	-0.80
CIF Turkey	6,000	NAR	82.00	-2.00
FOB Gladstone	6,500	GAR	73.50	-0.75
FOB Qinhuangdao	6,200	GAR	92.00	-0.25
Russia Pacific	6,300	GAR	77.50	-0.50
CIF Japan	6,080	NAR	85.50	-1.00
CIF Korea West	6,080	NAR	82.50	-0.50

^ Weekly average

Inside this Issue

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- Panamax freight sentiment weak as market searches for floor 9

WORLD CURRENCY RATES

Currency exchange rates

The Exchange Rates Committee of the Reserve Bank of India issued the following exchange rates on Friday for currency deposits, DBC/FCBC, Special US\$ Bonds and for forward cover for deposits (FE-25 Deposits):

98.4520
165.6062
133.0284
0.9651

Table on FE Deposits

BBA BID RATES WITH VALUE DATE MAXIMUM RATES FOR PAYMENT OF INTEREST BY AUTHORISED DEALERS

UE 13-06-14 VALUE 13-06-14

0.0202% PA 0.7298% PA

0.0202% PA 0.8203% PA

0.0202% PA 1.1646% PA

0.0202% PA 1.6846% PA

0.0202% PA 1.9146% PA

0.0202% PA 2.1646% PA

0.0202% PA 2.2896% PA

UE 13-06-14 VALUE 13-06-14

0.2841% PA 1.0341% PA

0.3938% PA 1.1436% PA

0.7025% PA 1.5775% PA

0.7025% PA 1.0775% PA

0.7025% PA 2.8275% PA

0.7025% PA 2.5775% PA

0.7025% PA 2.7025% PA

UE 13-06-14 VALUE 13-06-14

0.0143% PA 0.7357% PA

0.0706% PA 0.8206% PA

0.2296% PA 1.1046% PA

0.2296% PA 1.6046% PA

0.2296% PA 1.8546% PA

0.2296% PA 2.1046% PA

0.2296% PA 2.2296% PA

UE 13-06-14 VALUE 13-06-14

0.1150% PA 0.6350% PA

0.0682% PA 0.6818% PA

0.0807% PA 0.9557% PA

0.0807% PA 1.4557% PA

0.0807% PA 1.7057% PA

0.0807% PA 1.9557% PA

0.0807% PA 2.0807% PA

— APP

KARACHI: Treasury Management Division of National Bank of Pakistan Friday issued the following Exchange rates:

Countries	Selling TT&D	Buying TT Clean	Buying ODT/CHQ
U.S.A.	98.30	98.10	97.90
U.K.	168.79	168.45	168.10
EURO	133.31	133.04	132.77
CANADA	90.53	90.35	90.11
SWITZERLAND	109.48	109.24	108.95
AUSTRALIA	92.59	92.40	92.16
SWEDEN	14.71	14.58	14.64
JAPAN	0.9648	0.9628	0.9601
NORWAY	16.43	16.39	16.35
SINGAPORE	78.76	78.60	78.39
DENMARK	17.87	17.83	17.79
SAUDI ARABIA	26.21	26.16	26.09
HONG KONG	12.68	12.65	12.62
KUWAIT	348.63	347.92	347.01
MALAYSIA	30.61	30.55	30.47
NEW ZEALAND	85.21	85.03	84.81
QATAR	27.00	26.95	26.87
U.A.E.	28.76	28.71	28.64
KR. WON	0.0965	0.0963	0.0961

CONVERSION FOR FC DEPOSITS, DBC/FCBC, SPECIAL US\$ BOND & PROFITS THEREON (EXCLUDING FE-25 DEPOSITS)

US DOLLAR 98.4520 POUND STERLING 165.8062 EURO 133.0284

EXCHANGE RATES FOR CURRENCY NOTES

Countries	SELLING	BUYING
U.S.A.	99.28	96.92
S.A.R.A.B.I.A.	26.47	25.83
U.K.	168.45	164.44
JAPAN	0.9742	0.9505
EURO	134.65	131.44
U.A.E.	27.03	25.84

LIBOR FOR CALCULATING INTEREST ON SPECIAL US DOLLAR

LIBOR 0.3203 13-06-2014

INTEREST RATES ON OLD & INCREMENTAL F.C.Y. DEPOSITS

US\$ 0.1000 Rates % p.a.

GBP 0.1000

JPY 0.0000

PERIOD FOR THE MONTH OF JUNE

For 1 week and over but less than 1 month

For 1 month and over but less than 3 months

For 3 months

BILL BUYING RATES PER UNIT OF CURRENCY

30Days 60Days 90Days 120Days 150Days 180Days

US Dollar 97.68 97.26 96.83 96.47 96.06 95.48

UK Pound Sterling 165.62 164.66 164.10 163.64 162.98 161.73

EUR L/C 132.43 131.85 131.28 130.80 130.25 129.51

KARACHI: Following are the selling/buying rates of major currencies issued by National Bank of Pakistan (NBP) here on Friday.

Selling Buying

U.S.A. 99.28 96.92

S.A.R.A.B.I.A. 26.47 25.83

U.K. 168.45 164.44

JAPAN 0.9742 0.9505

EURO 134.65 131.44

U.A.E. 27.03 25.84

Forex Association Exchange Rates

Date: 13-06-2014

CURRENCY	BUYING	SELLING	CURRENCY	BUYING	SELLING
U.S.\$ (Cash Free Market)	99.50	99.70	HONG KONG \$	12.69	13.19
EURO	134.50	134.75	UAE DIRHAM	27.05	27.20
U.K. POUND	168.00	168.25	KWD	350.46	350.56
JAPANESE YEN	0.96579	0.96579	QTR RIYAL	27.20	27.30
CHF	110.05	110.55	OMANI RIYAL	257.18	257.68
DKK	17.93	18.03	BH. DINAR	262.58	263.08
NOK	16.44	16.54	INDIAN RUPEE	1.55	1.70
SEK	14.80	14.90	IRQ DINAR	0.078	0.085
AUD \$	92.74	93.24	SAUDIA RIYAL	28.40	28.55
CAD \$	91.02	91.52	MALAYSIAN RINGIT	30.00	31.50
SGD \$	78.87	79.37	IRANI RIYAL	0.0028	0.0033

Currency values in terms of Special Drawing Rights

WASHINGTON: The International Monetary Fund (IMF), treasuries' department's currency values in terms of Special Drawing Rights (SDR) (12-05-2014) (11-06-2014)

Currency	12-Jun-14	11-Jun-14	10-Jun-14	9-Jun-14
Euro	0.88	0.881228	0.881143	0.883056
Japanese Yen	0.00637823	0.00635581	0.00635378	0.00632973
U.K. Pound Sterling	1.09447	1.09153	1.09136	1.09078
U.S. Dollar	0.650503	0.650497	0.650434	0.649824
Algerian Dinar	0.00819305	0.00819259	0.00819378	0.00818538
Australian Dollar	0.610887	0.610491	0.609327	—
Bahrain Dinar	1.73006	1.73005	1.72988	1.72586
Botswana Pula	0.0734418	0.073246	0.073434	0.0736529
Brazilian Real	0.291614	0.291755	0.291204	0.289117
Brunei Dollar	0.520444	0.520231	0.520058	0.518768
Canadian Dollar	0.599487	—	0.595908	0.594797
Chilean Peso	0.00117332	0.00117605	0.00118284	0.00118074
Chinese Yuan	0.105745	0.105762	0.105846	0.105542
Colombian Peso	0.000345182	0.000345097	0.000345285	0.000344058
Czech Koruna	0.0320935	0.0321106	0.032098	0.0321711
Danish Krone	0.11796	0.118103	0.118098	—

Yuan helps Asia FX shake off Iraq worries

SINGAPORE: The Thai baht rose to its strongest level in more than three weeks on Friday and most emerging Asian currencies looked set to post weekly gains as a jump in the yuan offset concerns about the escalating civil war in Iraq.

The yuan hit two-month highs against the dollar, and looked set for its best weekly performance since December 2011 on growing hopes that the central bank has put the currency back on a gradual appreciation path after engineering a sharp correction earlier in the year to punish speculators.

The baht gained on bond inflows and after the leader of the military government said an interim government would be set up by August.

Bangkok shares also rose amid media reports that a transport strategy committee has approved a 3 trillion baht (\$92.7 billion) infrastructure development plan.

Taiwan's dollar advanced on some speculations that the central bank may tolerate the currency's appreciation amid a stronger South Korean won.

Emerging Asian currencies also have been supported by expectations that the European Central Bank's policy easing last week will spur more investors to seek higher yields in Asia.

"We remain constructive on the Asian FX space," said Credit Agricole CIB in a client note.

For the week, the yuan led regional appreciation with a 0.7 percent gain against the dollar, encouraged by a series of strong mid-point fixings by the central bank. Many emerging Asian currencies tend to track the renminbi given regional economic dependence on China. Some of them are used for proxy trades to bet the yuan's direction.

The baht has risen 0.5 percent, while the Indonesian rupiah has appreciated 0.4 percent.

NEW YORK slipped for a session against currencies on Thursday sales and weekly data showed a hawkish economy and of a hawkish Federal Reserve. The Commission said retail sales last month for a 0.1 percent increase, revised to show a 0.1 percent increase.

"The retail sales concerning food and services are not going to grow that brings down for higher Fed Trevisani, chief economist at World War Woodcliff Lak.

The Fed's upcoming policy meeting. In a separate Department said state unemployment climbed 4,000 adjusted 317,1 ended June 7, 2014.

The dollar for the first time sessions, although not far from a \$1.3503 hit last European Central Bank to record lows.

A drop in US narrowed the gap on US Treasury bonds, leading profits on the against the euro.

LONDON: around a third against the yen, followed by the British pound latest comment Friday while still a surprise hint from England that could rise this year.

MARKET REPORT

the range of 8.75%—9.00%. SBP conducted 17bn@9.15% against the total participation of within the range of 8.50%—9.00% and closed

Low Offer	High Offer	Average
7.60	9.50	8.46
9.15	9.50	9.26
9.50	9.75	9.58
9.90	10.00	9.88
9.95	10.00	9.94
10.00	10.20	10.06
10.00	10.30	10.11
10.00	10.40	10.10
10.00	10.30	10.10
10.05	10.35	10.13
10.05	10.35	10.13

Low Offer	High Offer	Average
7.60	9.50	8.46
9.40	9.60	9.40
9.75	9.90	9.74
9.90	10.10	9.95
10.00	10.30	10.10
10.10	10.40	10.20
10.10	10.40	10.20
10.10	10.40	10.20
10.15	10.45	10.25
10.20	10.50	10.29
10.25	10.50	10.30

ary Market Data



**MARINE IMPORT
TENTATIVE QUOTATION**

Client : M/s. Al – Abbas Sugar Mills Ltd
Karachi

Interest : Non- Coking Steaming Coal in bulk

Sum insured : On declaration basis

Risk Cover : Institute Cargo Clauses (A)
Institute War and Strikes Cargo Clauses (Cargo)
Institute Classification Clause
Excluding Spontaneous Combustion

Conveyance : By Sea (Any approved Vessel)

Voyage : From : World Port
To : Karachi Port / Port Qasim

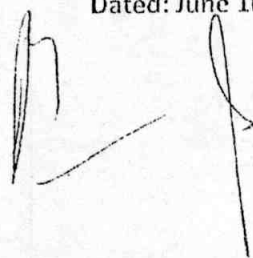
Rates : Marine @ 0.15%
War/SRCC @ 0.05%

Deductible : 1% Excess on whole shipment

Please note that the above rates are subject to usual Government Taxes, i.e 5% Adm. Charges (Max Rs.4,000), 16% Sales Tax on Service, 1% Federal Ins. Fee and 0.025% Stamp Duty .

The validity of this quotation is 15 days

Dated: June 16th 2014



14. COST ESTIMATES FOR VARIABLE O&M COMPONENT:

This component include the cost of consumables such as lubricant, chemicals, wear & tear parts, water charges, and coal handling at plant site including stacking and piling, ash removal by trucks, minor maintenance and water charges.

The material handling includes coal and ash. Coal handling includes costs related to unloading equipment, weighing bridge, feeders, crane & grabber, stockyard maintenance and reclaimers. The coal handling process will be primarily coal unloading from trucks to open stockyard, piling and feeding to underground hopper for conveying coal to boiler coal bunker.

Cost associated with ash handling system includes ash collection system for both dry and wet ash, shifting to ash storage area and then ash dumping / disposal systems.

Indexation and escalation

The local variable O&M component of the energy charge will be quarterly indexed to Pakistan Wholesale price index (WPI) (manufacturing), as notified by the Pakistan Federal Bureau of statistics.

15. COST ESTIMATES FOR FIXED O&M COMPONENT:

The fixed O&M cost component represents (a) fixed cost of staff for operation & maintenance of the plant (b) the cost of spares and services for routine maintenance and major overhaul (c) Third party services (d) administrative cost and office expenditures.

The administrative cost is the cost for head office personnel and other office costs and all other costs required for running of the plant. It includes professional fees, consultants' fees, administration and procurement costs, environmental monitoring costs, license and permits fees, bank charges, safety and security costs etc.

Indexation and escalation

The local fixed O&M component of the energy charge will be quarterly indexed to Pakistan Wholesale price index (WPI) (manufacturing), as notified by the Pakistan Federal Bureau of statistics.

16. COST OF WORKING CAPITAL:

The cost of working capital has been worked out on the payment terms under the power purchase agreement for Energy Purchase Price and Capacity Purchase price invoiced for the net electrical energy generated and dispatched to the grid and the coal inventory of 45 days and EPP receivable of 25 days.

Indexation and Escalation:

Any change in 3 months KIBOR and variation in fuel price will be adjusted.

<u>Fuel Cost Component</u>		
Net Plant Efficiency	18.5%	
Net Plant Heat Rate (LHV) in BTU/KWH	18,440	
Reference Coal Price per Ton	10,117	
Calorific Value of Coal (NCV) in Kcal/Kg	6,000	
Price of Coal per MMBTU	424.7	Rs / MMBTU
Fuel Cost Component per KWH	7.83	
Exchange Rate	98.30	
<u>Working Capital Charge</u>		
Days Inventory Stored	45	
Dispatch Factor	100%	
Dispatch at 100% in KWH	13,500,000	
Coal Consumption in Tons	10,451	
1 Total Value of Coal	105,728,434	
Energy Purchase Price	8.25	
Days Outstanding	25	
2 FCC Invoice O/S for 21 Days	61,900,211	₹
Total Working Capital (1+2)	167,628,645	₹
KIBOR	10.16%	
Margin	2.0%	
Working Capital Rate	12.16%	
Working Capital Charge	20,383,643	

17. INSURANCE EXPENSES

This includes insurance of Plant and Machinery, stock in trade (coal) and stores and spares. It also includes terrorism and atmospheric disturbance insurance.

Indexation and escalation

The insurance expenses of the energy charge will be quarterly indexed to Pakistan Wholesale price index (WPI) (manufacturing), as notified by the Pakistan Federal Bureau of statistics.

18. RETURN ON ASSET WORKINGS AND RATIONAL FOR CHARGING IT:

DESCRIPTION	RS IN 000	Per KWH
Cost of Assets	550,000	
16.5% return on fixed asset	90,750	0.83

19. TARIFF ASSUMPTIONS

The main assumptions are as follows:

Fuel	Coal
Net heat rate	18440 Btu / kwh
Net efficiency	18.5%
Reference coal price	10,117 Rs. / ton
Calorific value (NAR)	6000 kcal / kg
Exchange rate US\$=1	Rs. 98.30
Fuel cost	7.83 Rs. / kwh

20. TARIFF FOR K-ELECTRIC:

The AASML is submitting tariff on the basis of take-or-pay, two part tariff i.e. Energy Purchase Price in Rs / kwh, Capacity Purchase Price in Rs. / kwh for the term of the agreement for the electric energy available for dispatch to the K-Electric grid.

Fuel cost component is calculated on Reference coal price of delivered at plant.

The proposed Reference Tariff figures are as follows:

DESCRIPTION	Rs in 000	Per KWH
Fuel - Coal Consumed	857,575	7.83
Ash and removal charges	24,090	0.22
Variable O&M		
Spares and Stores	10,318	0.09
Water	11,760	0.11
Variable O&M	22,078	0.20
Total Variable Charges	903,743	8.25
Capacity Charges		
Working capital charges	20,384	0.19
Insurance Expenses	11,190	0.10
Fixed operation and maintenance charges		
Salaries & wages	33,600	0.31
Stores & Spares consumed	24,074	0.22
Third Party Services	3,900	0.04
Administrative Expenses	8,250	0.08
	69,824	0.64
Return on Investments	90,750	0.83
Total Fixed Charges	192,148	1.75
Total Fixed & Variable Charges	238,316	2.18
Grand Total	1,095,891	10.01
CALCULATION OF CAPACITY PURCHASE PRICE		
<div style="text-align: right;"> Total cost in Rs Quantity produced in kwh <hr/> 1,095,891,119 109,500,000 </div>		
Total charge per kwh		10.01

*Sales tax will be charged as per applicable rate.

Tariff justification:

The variable and fixed charges are slightly on higher side due to low plant efficiency of 18.5% as compared to 36% of bigger and new plant. The plant is small and manufactured in 1980's. However, the overall tariff of 10.01 is on lower side.

Al-Abbas Sugar Mills Limited

Reference Power Table

Year	Fuel Component	Ash Removal	Variable O&M	Total EPP	Fixed O&M	Insurance	Working Capital Charges	Return on Investment	Total CPP	Total Tariff @ 100%	Capacity Charge @ 85%	Total Tariff Rs/kWh at 85%
1	7.83	0.22	0.20	8.25	0.64	0.10	0.19	0.83	1.75	10.01	2.06	10.32
2	7.83	0.22	0.20	8.25	0.64	0.10	0.19	0.83	1.75	10.01	2.06	10.32
3	7.83	0.22	0.20	8.25	0.64	0.10	0.19	0.83	1.75	10.01	2.06	10.32
4	7.83	0.22	0.20	8.25	0.64	0.10	0.19	0.83	1.75	10.01	2.06	10.32
5	7.83	0.22	0.20	8.25	0.64	0.10	0.19	0.83	1.75	10.01	2.06	10.32

21. INDEXATION MECHANISM FOR VARIOUS COMPONENTS OF THE TARIFF:

Indexation mechanisms for various components of the tariff are described above at Note nos. 13, 14, 15, 16 and 17.

