

SAIGOLS



KOHINOOR
ENERGY LIMITED

42
d.m.f.



KEL/EXP/EXS-28-2007

The Registrar
National Electrical Power Regulatory Authority
OPF Building, Shaharah-e-Jamhuriat
G-5/2
Islamabad.

Subject: Tariff Petition for 143 MW (net at reference conditions) Kohinoor Energy Limited Project at Near Tablighi Ijetima, 6 k.m. Raiwind Bypass Road, Lahore.

Dear Sir,

1. It is submitted that in light of the projected deficiency in power generation in Pakistan, the Economic Co-ordination Committee (ECC), in a meeting held on January 4, 2006, decided to adopt a strategy pursuant to which a fast track process for capacity expansion of the existing power producers was envisioned. In light of the decision taken by the ECC, the Government of Pakistan (GOP), through Ministry of Water & Power and the Private Power and Infrastructure Board (PPIB), vide its letter dated February 4, 2006 (No.1(102)PPIB-IPP.EXP/06/FIN), invited Kohinoor Energy Limited (KEL) for submission of expressions of interest in relation to expansion of its existing generation capacity on a fast track basis.
2. KEL, vide its letter of expression of interest dated February 7, 2006 (KEL/EXS-05-2006), expressed its firm interest in the fast track process for capacity expansion proposed by the GOP. Consequently the GOP through Ministry of Water & Power and PPIB, vide its letter No.1(102)PPIB-IPP.EXP/06/FIN and accompanying Request for Proposal (RFP) dated May 29, 2006, formally initiated the tariff bidding process and invited KEL to submit its bid for capacity expansion of its existing facilities.
3. In response to the RFP issued by the ^{CP-02} GOP, KEL submitted a comprehensive competitive proposal/bid (the Bid), dated August 28, 2006, for fast track capacity expansion of its existing generation capacity. The Bid stated in detail the technical specifications as well as the capital structure for KEL's proposed expansion. In addition, the Bid also provided detailed breakdown for the proposed tariff, based on assumptions provided by GOP in the RFP, as amended from time to time.
4. Following intense negotiations with the GOP, KEL vide its letter dated March 5, 2007 (reference: KEL/EXP/EXS-17-2007) resubmitted its tariff based on the assumptions approved by NEPRA in the tariff determination of Attock Generation Limited, as directed by GOP vide PPIB.
5. Subsequently, the GOP through PPIB, vide its letter dated April 24, 2007 (No.1(102)PPIB-IPP.EXP/07/FIN), approved a tariff of 11.3800 US Cent/kWh for KEL for an additional net output of 143 MW (net at reference conditions) (the Reference Generation Tariff). _{CP-04}

CP-02

Registrar
Dy. No. 144
Dated 17.5.2007

AD(R)
17.05.07



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ENERGY LIMITED



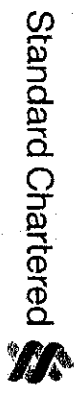
- 6. The bidding process for determination of the Reference Generation Tariff was initiated and managed by the GOP, through Ministry of Water & Power and PPIB, in accordance with GOP's Guidelines For Determination Of Tariff for Independent Power Producers 2005 (the **Tariff Guidelines**) read with the enabling provisions of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of) 1997 (the **NEPRA Act 1997**) and the rules (the **Rules**) made thereunder. Thus, it is submitted that in light of Sections 1.9 and 1.10 of the Tariff Guidelines, the Reference Generation Tariff is not subject to further review by NEPRA since it has been approved by the GOP based on the bidding process.
- 7. **PURSUANT TO** the Sections 1.9 and 1.10 of the Tariff Guidelines read with the enabling provisions of the NEPRA Act 1997 and the Rules made thereunder; **AND** in light of the letter dated April 24, 2007 (No.1(102)PPIB-IPP.EXP/07/FIN) received by KEL from the GOP through PPIB, pursuant to which the GOP has approved the Reference Generation Tariff for the 143 MW (net at reference conditions) expansion of KEL's existing generation capacity; **AND** in order to seek formal approval of the GOP approved Reference Generation Tariff from NEPRA without further review: **KEL SUBMITS HEREWITH** for NEPRA's formal approval, a tariff petition (the **Tariff Petition**) for approval of the Reference Generation Tariff for its 143 MW (net at reference conditions) expansion of its existing power generation facility located at Near Tablighi Ijetima, 6 k.m. Raiwind Bypass Road, Lahore.
- 8. This Tariff Petition is submitted in triplicate, together with:
 - (a) the requisite fee;
 - (b) Board resolution of KEL; and
 - (c) Affidavit of Dr. Umer Masood.
- 9. We enclose Bank Draft No. 904142 dated May 15, 2007 amounting to PKR 2,603,500/- (Rupees Two Million Six Hundred Three Thousand and Five Hundred) for the Tariff Petition. *CP-39*
- 10. We look forward to responding positively and expeditiously to the regulatory process and to a hopefully expeditious conclusion of the same in order to achieve financial close without delay and in order to complete the Project on a fast track basis.

Sincerely,

.....
 DR. UMER MASOOD
 DIRECTOR & CHIEF OPERATING OFFICER
 KOHINOOR ENERGY LIMITED
 DATED: MAY 17, 2007

**COPY OF BANK DRAFT FOR TARIFF PETITION
FEE**

1<<<<



LDA PLAZA - LAHORE

NO. 904142

Date: 15MAY2007

Pay NATIONAL ELECTRIC POWER REGULATORY AUTHORITY.** Or Order

Rupees *****02**MILLION**603**THOUSAND*5**HUNDRED**AND NO**** PAISAS.

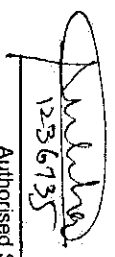
Rs. ***2,603,500.00

A/C PAYEE ONLY

(REF: DPST001601 01/01)
NO: 904142

PAYABLE AT ANY BRANCH IN PAKISTAN
A/C. No. 6214-4360405-7519

⑆0904142⑆087003⑆⑆0950400750⑆020⑆


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Authorized Signature
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KEL BOARD RESOLUTION

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KOHINOOR ENERGY LIMITED

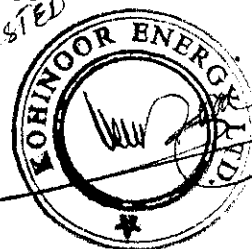


**RESOLUTION PASSED BY THE BOARD OF DIRECTORS OF
KOHINOOR ENERGY LIMITED IN THEIR MEETING HELD ON
FRIDAY AUGUST 25, 2006 AT PLANT SITE NEAR TABLIGHI
IJTIMA, RAIWIND BYPASS, LAHORE, PAKISTAN**

Unanimously resolved that:

1. It is in the best interest of the Company to accept the invitation made by the Government of Pakistan, Ministry of Water and Power, Private Power and Infrastructure Board ("PPIB"), through its Request for Proposals, dated May 29, 2006, as amended and clarified, for the fast track capacity expansion of the Company's existing electric power plant by the addition of a capacity of 146.652 MW gross ISO (143 MW net at reference conditions) in accordance with PPIB's Request for Proposals, dated May 29, 2006, as amended and clarified (the "Expansion Project");
2. To this end, Messrs Haruyoshi Murakami, Chief Executive Officer, Bearing Passport No. TG5321858 and Dr. Umer Masood Tariq, Chief Operating Officer, bearing National Identity Card No. 35202-0417104-7, Chief Operating Officer of the Company be and are hereby authorized and empowered, jointly or severally, to prepare, sign, execute, submit, withdraw and make amendments, and seek and give clarifications to the PPIB and/or any other person, body, department, or entity having the power or jurisdiction, the Company's bid for the Expansion Project and all other documents and mandates as may be required from time to time (including, but not limited to tariffs, agreements, bid bonds, bank guarantees, performance guarantees, fees, powers of attorney and affidavits) and thereafter to attend and participate in the bidding process, meetings and conferences and, if the Company's bid is accepted by PPIB and/or any other person, body, department, or entity having the power or jurisdiction and a letter of Support is issued to the Company, to take all decisions and actions for the approval of the Company's tariff for the Expansion Project before the National Electric Power Regulatory Authority or any other person, body, department, or entity having jurisdiction, and to negotiate, finalize and execute and perfect all project agreements, and all other agreements and documents, and apply for and obtain all consents and permissions and amendments to consents and permissions for the Expansion Project or part thereof and to take all other decisions and actions and to delegate all or any of their powers to any one or more officers of the Company or any other person or persons, jointly or severally, in their discretion, including legal, financial, and technical advisors and consultants and other professionals to enable the Company to prepare, sign and submit the bid and to build, own and operate the Expansion Project on a fast track basis and in accordance with all applicable documents and the agreements to be executed in this behalf.

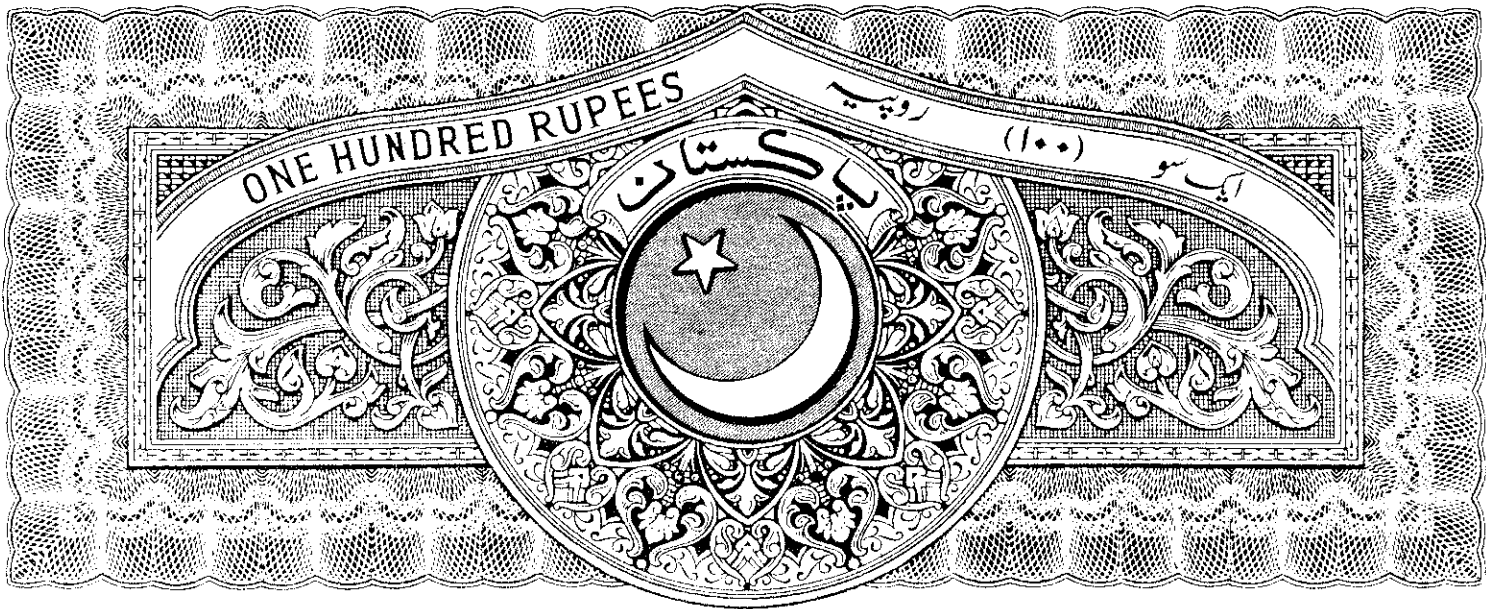
ATTESTED



COMPANY SECRETARY

Sd/-
Chairman

**AFFIDAVIT OF DR. UMAR MASOOD
(DIRECTOR & CHIEF OPERATING OFFICER)**



**BEFORE
THE NATIONAL ELECTRIC POWER REGULATORY AUTHORITY**

AFFIDAVIT

AFFIDAVIT of DR. UMER MASOOD, Director and Chief Operating Officer, Kohinoor Energy Limited, Near Tablighi Ijetima, 6 k.m Raiwind Bypass Road, Lahore.

I, the above-named Deponent, do hereby solemnly affirm and declare that:-

1. I am the Director & Chief Operating Officer of M/s Kohinoor Energy Limited, Near Tablighi Ijetima, 6 k.m Raiwind Bypass Road, Lahore.
2. I am the principal authorized representative/attorney of M/s Kohinoor Energy Limited, Near Tablighi Ijetima, 6 k.m Raiwind Bypass Road, Lahore.
3. The contents of the accompanying Tariff Petition dated May 17, 2007, including all supporting documents are true and correct to the best of my knowledge and belief, and nothing material or relevant thereto has been concealed or withheld therefrom.
4. I also affirm that all further documentation and information to be provided by me in connection with the aforesaid Tariff Petition shall be true and correct to the best of my knowledge and belief.

A. U. S

.....
DEPONENT

VERIFICATION

It is hereby verified on solemn affirmation at Lahore on this the 17th day of May 2007.

BEFORE
THE NATIONAL ELECTRIC POWER REGULATORY AUTHORITY (NEPRA)

TARIFF PETITION
PURSUANT TO PARAGRAPHS 1.9 AND 1.10
OF THE FEDERAL GOVERNMENT'S
GUIDELINES FOR DETERMINATION OF TARIFF
FOR INDEPENDENT POWER PRODUCERS 2005
READ WITH THE ENABLING PROVISIONS OF THE NEPRA ACT 1997 AND THE RULES
MADE THEREUNDER

ON BEHALF OF

KOHINOOR ENERGY LIMITED (KEL)

FOR NEPRA'S FORMAL APPROVAL OF GOVERNMENT OF PAKISTAN'S APPROVED
REFERENCE GENERATION TARIFF FOR KEL

FOR A POWER PROJECT OF 143 MW (NET AT REFERENCE CONDITIONS)

AT

NEAR TABLIGHI IJTAMA, 6 K.M. RAIWIND BYPASS ROAD, LAHORE

DATED: MAY 17, 2007

KOHINOOR ENERGY LIMITED
ADDRESS: NEAR TABLIGHI IJTAMA, 6 K.M. RAIWIND BYPASS ROAD, LAHORE
TELEPHONE #: 042 111 111 535
 042 539 2317
FAX #: 042 539 3416

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TABLE OF CONTENTS

GLOSSARY 3

1. DETAILS OF THE PETITIONER 4

2. BACKGROUND – GOVERNMENT OF PAKISTAN APPROVAL 5

3. PROJECT INTRODUCTION 8

5. ENERGY PURCHASE PRICE 12

6. CAPACITY PURCHASE PRICE 15

7. ONE TIME ADJUSTMENTS 23

8. GENERAL ASSUMPTIONS 25

ANNEXURE A 27

ANNEXURE B 29

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GLOSSARY

BTU	British Thermal Unit
CPI	Consumer Price Index
CPP	Capacity Purchase Price
ECC	Economic Coordination Committee
EPC	Engineering Procurement and Construction
EPP	Energy Purchase Price
EUR	Euro
FSA	Fuel Supply Agreement
IA	Implementation Agreement
IPP	Independent Power Producer
IRR	Internal Rate of Return
ISO	International Standards Organization
KEL	Kohinoor Energy Limited
KIBOR	Karachi Inter Bank Offered Rate
KW	Kilowatt
KWh	Kilowatt hour
L/C	Letter of Credit
LFO	Light Fuel Oil (High Speed Diesel)
LHV	Lower Heating Value
MW	Megawatt, i.e., 1,000,000 Watts
MWh	Megawatt hour
NEPRA	National Electric Power Regulatory Authority
NTDC	National Transmission & Dispatch Company
O&M	Operation & Maintenance
PKR	Pakistani Rupees
PPA	Power Purchase Agreement
PPIB	The Private Power & Infrastructure Board of the Government of Pakistan
RFO	Residual Fuel Oil
ROE	Return on Equity
TON	Metric Tonne i.e. 1000 kg
USD	United States Dollar
WAPDA	Pakistan's Water & Power Development Authority established under the WAPDA Act (WP-XXXI of) 1958

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1. DETAILS OF THE PETITIONER

NAME AND ADDRESS

Kohinoor Energy Limited.
Address: Near Tablighi Ijtama, 6 k.m. Raiwind Bypass Road, Lahore.

REPRESENTATIVE OF KOHINOOR ENERGY LIMITED

- **DR. UMER MASOOD:** Director & Chief Operating Officer, Kohinoor Energy Limited.

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2. BACKGROUND – GOVERNMENT OF PAKISTAN APPROVAL

2.1 THE NATIONAL ELECTRIC POWER REGULATORY AUTHORITY

2.1.1 Under the Regulation for Generation, Transmission and Distribution of Electric Power Act (XL of) 1997 (the **NEPRA Act**), the National Electric Power Regulatory Authority (**NEPRA**) is responsible, inter alia, for determining tariffs and other terms and conditions for the supply of electricity through generation, transmission and distribution. NEPRA is also responsible for determining the process and procedures for reviewing tariffs and recommending tariff adjustments.

2.2 GUIDELINES FOR DETERMINATION OF TARIFF FOR INDEPENDENT POWER PRODUCERS 2005

2.2.1 Pursuant to Sections 1.9 and 1.10 of the Guidelines For Determination of Tariff for Independent Power Producers 2005 (the **Tariff Guidelines**), once a tariff has been arrived at through the competitive bidding process, it should not be subject to further review by NEPRA. The relevant applicable sections of the Tariff Guidelines are herein provided for NEPRA's reference.

2.2.2 Section 1.9 of Tariff Guidelines

1.9 The bidding process may be structured on either of the following two options:

- (a) bidding for a tariff
- (b) Offering an up-front benchmark tariff and bidders to quote a discount on the benchmark price.

2.2.3 Section 1.10 of Tariff Guidelines

1.10 It is proposed that once a tariff has been arrived at through competitive biddings based on either of the processes mentioned at Para 1.9 above, it should not be subjected to further review by NEPRA. The bidding process be structured and administered by PPIB (Ministry of Water & Power) in consultation with the power purchaser (WAPDA/NTDC), Ministry of Finance and NEPRA. The bidding documents (including various formula, formats, etc.), alongwith evaluation criteria, be also finalized by PPIB in consultation with the same agencies. The lowest evaluated levelized tariff would be recommended to the GOP for acceptance. (Emphasis added by us.)

2.3 GOVERNMENT OF PAKISTAN CAPACITY EXPANSION INITIATIVE - THE ECC DECISION

2.3.1 It is submitted that in light of the projected deficiency in power generation in Pakistan, the Economic Co-ordination Committee (**ECC**), in a meeting held on January 4, 2006, decided to adopt a strategy pursuant to which a fast track process for capacity expansion of the existing power producers was envisioned.

2.4 THE EXPRESSION OF INTEREST

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2.4.1 In light of the decision taken by the ECC, the Government of Pakistan (**GOP**), through Ministry of Water & Power and the Private Power and Infrastructure Board (**PPIB**), vide its letter dated February 4, 2006 (No.1(102)PPIB-IPP.EXP/06/FIN), invited Kohinoor Energy Limited (**KEL**) for submission of expressions of interest in relation to expansion of its existing generation capacity on a fast track basis.

2.4.2 KEL, vide its letter of expression of interest dated February 7, 2006 (KEL/EXS-05-2006), expressed its firm interest in the fast track process for capacity expansion proposed by the GOP.

2.5 TARIFF BIDDING

2.5.1 Consequently, the GOP, through Ministry of Water & Power and PPIB, vide its letter No.1(102)PPIB-IPP.EXP/06/FIN and accompanying Request for Proposal (**RFP**) dated May 29, 2006, formally initiated the tariff bidding process and invited KEL to submit its bid for capacity expansion of its existing facilities.

2.5.2 In response to the RFP issued by the GOP, KEL submitted a comprehensive competitive proposal/bid (the **Bid**), dated August 28, 2006, for fast track capacity expansion of its existing generation capacity. The Bid stated in detail the technical specifications as well as the capital structure for KEL's proposed expansion. In addition, the Bid also provided detailed breakdown for the proposed tariff, based on assumptions provided by GOP in the RFP, as amended from time to time.

2.5.3 The Bids were opened in the presence of representatives from NEPRA, WAPDA, Ministry of Water & Power, Ministry of Finance and PPIB on August 29, 2006 and were thereafter reviewed.

2.6 REDUCTION IN KEL'S BID TARIFF

2.6.1 Following various rounds of intense negotiations with the GOP, the committee members of PPIB advised KEL that KEL's proposal for approval of tariff shall be recommended to the ECC provided that KEL's levelized tariff does not exceed US Cents 11.38/kWh, which is equal to the lowest negotiated bid tariff received by PPIB, based on the set of assumptions set out (as desired by the PPIB) in NEPRA's tariff ruling in the case of Attock Generation Limited (the **AGL Tariff Assumptions**).

2.6.2 In light of the negotiations held with the GOP and instructions received from the same and adhering to the GOP's request to offer a reduction, KEL vide its letter dated March 5, 2007 (reference: KEL/EXP/EXS-17-2007) resubmitted its levelized tariff of US Cent 11.38/kWh (the **Revised Tariff**) based on the AGL Tariff Assumptions for GOP's consideration.

2.7 GOP APPROVAL - THE 'REFERENCE GENERATION TARIFF'

2.7.1 The Revised Tariff was reviewed by a committee which included representatives from NEPRA, Ministry of Finance, WAPDA, Ministry of Water & Power and PPIB (the **Committee**). The Committee subsequently proposed such Revised Tariff to the PPIB Board, who in turn, recommended the Revised Tariff to the Ministry of Water & Power. Thereafter, the Revised Tariff was forwarded by Ministry of Water & Power to ECC for approval.

2.7.2 Subsequently, the ECC approved the Revised Tariff in its meeting held on April 10, 2007, following which the GOP through PPIB, vide its letter dated April 24,

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2007 (No.1(102)PPIB-IPP.EXP/07/FIN), approved a tariff of 11.3800 US Cent/kWh for KEL for an additional output of 143 MW (net at reference conditions) (the **Reference Generation Tariff**).

2.8 SUBMISSIONS

- 2.8.1 It is submitted that the Reference Generation Tariff was approved by the GOP, through Ministry of Water & Power and PPIB, in accordance with the Tariff Guidelines. As stated above, as per the Tariff Guidelines, once a tariff has been arrived at through competitive bidding based either on (i) bidding for a tariff or (ii) offering an upfront benchmark tariff, the same should not be subjected to further review by NEPRA since the process for determination and approval of the Reference Generation Tariff has been structured and administered by the PPIB in consultation with, inter alia, the power purchaser (the **Power Purchaser**), NEPRA, Ministry of Finance and Ministry of Water & Power.
- 2.8.2 As NEPRA would kindly appreciate after reviewing the evidence attached herewith, considerable time and effort have been invested by KEL to reach an agreement with the GOP on the critical issues and to make the parameters practically workable. KEL, therefore, desires to expedite matters for early development of the project.
- 2.8.3 PURSUANT TO the Sections 1.9 and 1.10 of the Tariff Guidelines read with the enabling provisions of the NEPRA Act 1997 and the Rules made thereunder; **AND** in light of the letter dated April 24, 2007 (No.1(102)PPIB-IPP.EXP/07/FIN) received by KEL from the GOP through PPIB, pursuant to which the GOP has approved the Reference Generation Tariff for 143 MW (net at reference conditions) expansion of KEL's existing generation capacity; **AND** in order to seek formal approval of the GOP approved Reference Generation Tariff from NEPRA without further review by NEPRA: **KEL SUBMITS HEREWITH** for NEPRA's formal approval, a tariff petition (the **Tariff Petition**) for approval of the Reference Generation Tariff for its 143 MW (net at reference conditions) expansion of its existing power generation facility located at Near Tablighi Ijetima, 6 k.m Raiwind Bypass Road, Lahore. This Tariff Petition is submitted in triplicate, together with the requisite fee.

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3. PROJECT INTRODUCTION

3.1 THE EXISTING POWER GENERATION FACILITY

- 3.1.1 KEL is a listed public limited company registered under the Companies Ordinance, 1984.
- 3.1.2 KEL presently operates a 124 MW HFO fired diesel-engine driven power generation facility located at Near Tablighi Ijtama, 6 k.m. Raiwind Bypass Road, Lahore (the **Existing Plant**). The Existing Plant features eight units of Wartsila internal combustion diesel engines 18V46 – type with rated capacity of 15.68 MW each, three ABB 63 MVA step – up transformers, and one unit of combined cycle heat recovery system capable of delivering an additional output of 8 MW through the Peter Brotherhood UK steam turbine.
- 3.1.3 In respect of the Existing Plant, KEL currently has 124 MW contracted capacity with WAPDA under a 30 year PPA from 1997 to 2027. Heavy fuel oil (**HFO**) is supplied to the Existing Plant by Pakistan State Oil (**PSO**), as per fuel supply agreement with PSO. KEL also entered into an IA with the GOP, which guarantees the performances of WAPDA and PSO, as well as the availability of foreign exchange and remittance of foreign exchange.
- 3.1.4 Operation and maintenance of the Existing Plant is performed by KEL's in-house operations and maintenance team. The manufacturers' technical advisors are only hired for scheduled major maintenance. KEL's Existing Plant commenced commercial operations in 1997 and to date has operated and maintained smoothly without any major technical problem. KEL's management and technical staff have obtained sufficient knowledge and experience of operation and maintenance of the power plant throughout their 10 year successful running of the Existing Plant. KEL has established and maintained a very cordial relationship with the Power Purchaser and Fuel Supplier through its operation and is regarded as one of the most reliable IPPs in Pakistan.

3.2 THE EXPANSION

- 3.2.1 KEL had been invited to participate in the fast track expansion of existing generation capacity by PPIB and ECC. After an elaborate process of bidding and negotiations, the GOP through PPIB approved the Reference Generation Tariff of 11.3800 US Cent/kWh for KEL. In a letter dated April 24th, 2007, PPIB directed KEL to apply to NEPRA for the formal approval of the Reference Generation Tariff.
- 3.2.2 In light of the GOP approval of the Reference Generation Tariff and following formal approval of the same by NEPRA through this Tariff Petition, KEL will finance, design, engineer, procure, construct, install, test, complete and commission a 143 MW (net at reference conditions) expansion of its existing power generation facility at Near Tablighi Ijtama, 6 k.m. Raiwind Bypass Road, Lahore (the **Project**).
- 3.2.3 The power purchase agreement (the **PPA**) will be finalized and executed by and between KEL and the Power Purchaser following NEPRA's formal approval of the 25 years Reference Generation Tariff.
- 3.2.4 The Reference Generation Tariff has a typical two-part structure with an energy charge (the **Energy Purchase Price**) for the energy actually dispatched and a capacity charge (the **Capacity Purchase Price**) based on the dependable capacity.

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3.3 ADDITIONAL INFORMATION

3.3.1 Following pertinent information is hereto attached for NEPRA:

- (a) REFERENCE TARIFF TABLE (**Annexure A**); and
- (b) RELEVANT CORRESPONDENCE with GOP, through PPIB and Ministry of Water & Power (**Annexure B**).

3.3.2 Additionally, the following have been attached as part of the Tariff Petition:

- (a) BOARD RESOLUTION OF KEL; and
- (b) AFFIDAVIT OF DR. UMER MASOOD.

3.3.3 Additional information, to the extent available, shall be submitted by KEL, if required by NEPRA.

3.4 OTHER CONSIDERATIONS

3.4.1 The unprecedented period of economic growth in Pakistan during the last few years has resulted in substantial increase in the projected electricity demand in the country. Certain projections have estimated a 350% increase in the demand for electricity in Pakistan within 20 years. Additionally, some of the old thermal generation plants need to be replaced and as such, the need for new capacity will be in the range of 2000 MW per year. This has been recognized by GOP and active steps have been taken to engage the IPPs, which includes KEL, to meet the shortfall in electricity supply.

3.4.2 The proposed 143 MW (net at reference conditions) expansion of KEL has the substantive advantage of being in close proximity to Lahore and thus the Project shall, following its completion, contribute substantially towards relieving the shortage of electric power in this area. Furthermore the existing transmission facilities and the proximity to the electricity grid shall have a considerable impact on any investments to be made by the Power Purchaser in relation to transmission and distribution networks and shall also result in relatively lower line losses during transmission. It is further highlighted that the fee for interconnection studies has already been deposited with the Power Purchase and shows seriousness on KEL's part for the commencement and completion of the Project on fast track basis.

3.4.3 KEL has the considerable expertise and experience of operating a highly successful existing electricity generation facility of 124 MW (net at reference conditions). KEL's 10 year expertise in the power sector and in operation of a generation facility will be instrumental in its reliable and efficient power generation from the Project.

3.4.4 Due to KEL's experience and knowledge of the technologies involved in power generation, KEL had opted for latest versions of models of the equipment, as well as the technical configuration, for the Project, which are similar to those installed at KEL's existing facility. The Project shall consist of 8 proven engines (W18V46 by Wartsila) generator sets along with a steam turbine.

3.4.5 KEL presently has a fuel supply agreement for its existing facility with PSO, which is a reputable and an experienced fuel supplier. Furthermore, KEL is

equipped with a highly advanced laboratory for fuel testing that can test fuel delivered at site to ensure the fuel's conformity with the specified quality requirements. The Project shall benefit from the existing and fully functional fuel supply arrangements of its existing facility, which shall ensure reliability of operations for the Project.

- 3.4.6 Based on a thorough analysis of the national electricity generation structure, the existing interconnection infrastructure and in light of KEL's successful operation of its existing power generation facility, it is anticipated that KEL shall operate the Project as one of the most of competitive power producers using RFO in Pakistan.

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4. REFERENCE GENERATION TARIFF SUMMARY

- 4.1 The Reference Generation Tariff figures appended below are the result of detailed financial analysis of the Project. Various technical, economic, financial, legal and fiscal aspects have been considered in the evaluation of KEL's financial and operational performance. All financial analyses are based on a notional 60% load factor, as per PPIB's instructions, and a 25 year PPA.
- 4.2 Based on the RFO price of PKR 22,140.07/ton (as per AGL Tariff Assumptions and PPIB instructions), an output of 143 MW (net at reference conditions) and detailed financial analyses, the Reference Generation Tariff approved by the GOP is hereunder:

	CAPACITY PURCHASE PRICE US CENTS/kWh	ENERGY PURCHASE PRICE US CENTS/kWh	TOTAL REFERENCE GENERATION TARIFF US CENTS/kWh	TOTAL REFERENCE GENERATION TARIFF PKR/kWh
LEVELIZED TARIFF	3.4325	7.9475	11.3800	6.8280
AVERAGE TARIFF	2.5643	7.9475	10.5118	6.3071

TOTAL REFERENCE GENERATION TARIFF	
AVERAGE (1-10 YEARS)	: US CENTS 12.1682/kWh (or PKR 7.3009/kWh)
AVERAGE (11-25 YEARS)	: US CENTS 9.4075/kWh (or PKR 5.6445/kWh)
AVERAGE (1-25 YEARS)	: US CENTS 10.5118/kWh (or PKR 6.3071/kWh)
LEVELIZED TARIFF	: US CENTS 11.3800/kWh (or PKR 6.8280/kWh)

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5. ENERGY PURCHASE PRICE

5.1 SUMMARY

5.1.1 The Energy Purchase Price component of the Reference Generation Tariff is based on the actual kWh off-take, and consists of the fuel component (the **Fuel Cost Component**) and the variable O&M component (both local and foreign).

5.1.2 A summary of the Energy Purchase Price is provided in the following table:

ENERGY PURCHASE PRICE - PKR/kWh				
PERIOD	FUEL COST COMPONENT	FOREIGN VARIABLE O&M COST COMPONENT	LOCAL VARIABLE O&M COST COMPONENT	TOTAL ENERGY PURCHASE PRICE
YEARS 1-25	4.3626	0.3216	0.0843	4.7685

5.2 FUEL COST COMPONENT

5.2.1 ASSUMPTIONS

The cost of fuel consumption for the plant, assuming thermal efficiency of 45% at 100% capacity factor (subject to agreement of part load adjustment and temperature de-rating curve), represents the fuel cost component (the **Fuel Cost Component**) of the Energy Purchase Price. Consequently, the Reference Generation Tariff subsumes the efficiency risk being borne by KEL. The main assumptions used to derive at the Fuel Cost Component are provided below:

RFO PRICE:	PKR 22,140.07 per ton delivered at site (based on the AGL Tariff Assumptions)
THERMAL EFFICIENCY:	45% at 100% capacity factor (subject to agreement of part load adjustment and temperature de-rating curve)
OUT PUT:	143 MW (net at reference conditions)
HFO CALORIFIC VALUE (LHV):	40,600 K Joules / Kg
PART LOAD ADJUSTMENT:	Heat Rate Curves from Genset manufacturers to be used for part load adjustment heat rate calculation and payment in case the plant capacity factor falls below 100%
FREIGHT	To be added at actual

5.2.2 INDEXATION & ESCALATION

The Fuel Cost Component shall be adjusted on account of Fuel Price variation of fuel consumed using FIFO method during operation period. Fuel consumed during construction and testing period shall be recovered from the Power Purchaser at actual.

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5.2.3 INDEXATION FORMULA

The Fuel Cost Component shall be indexed based on the following formula:

$$FC_{(Rev)} = \text{Relevant Reference Generation Tariff Component} * FP_{(Rev)} / FP_{(ref)}$$

Where:

- FC_(Rev) = Revised Fuel Cost Component
- FP_(Ref) = PKR 22,140.07 per ton per ton delivered at site (based on APL Tariff Assumptions)
- FP_(Rev) = The new price of RFO per metric ton with freight as per the following mechanism:

DESCRIPTION	US\$/Ton	Rs./Ton
HSFO Arab Gulf Average Price for applicable Fortnight (From Platts Oilgram Report) *		
Black Premium (From OGRA)		
C & F Price – A		
Crude Handling and Incidental charges		
Sub-Total – B		
EX Refinery Price – (C=A+B)		
GST (15% of EX Refinery Price)		
Selling Price – D		
OMC Margin		
GST (15% on OMC Margin)		
Sub Total – E		
Market Price – (F=D+E)		
Cost of RFO excluding GST		
Freight		
Cost of RFO with freight excluding GST		

* The Fuel Supplier shall ensure that lower calorific value of Arabian Gulf or any other source of which average reference fuel prices are used is not less than the reference calorific values guaranteed in the Fuel Supply Agreement. Fuel supplier shall provide price adjustment mechanism for any significant variation in calorific value of the fuel being supplied to KEL against the reference calorific values.

5.3 LOCAL VARIABLE O&M COST COMPONENT

5.3.1 INDEXATION AND ESCALATION

In accordance with PPIB’s instructions and inline with NEPRA approved AGL Tariff Assumptions, the Local Variable O&M Cost Component of the Energy Purchase Price shall be quarterly indexed to the WPI of manufacturing in Pakistan, as notified by the Federal Bureau of Statistics.

5.3.2 INDEXATION FORMULA

The Local Variable O&M Cost Component shall be indexed based on the following formula:

$$VO\&M_{(LRev)} = \frac{\text{Relevant Reference Generation Tariff Component} *}{(WPI_{(Rev)} / WPI_{(Ref)})}$$

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Where:

- $V O\&M_{(LRev)}$ = the revised applicable Local Variable O&M Cost Component of the Energy Purchase Price, quarterly indexed to WPI of manufacturing in Pakistan.
- $WPI_{(Rev)}$ = the revised WPI of manufacturing in Pakistan, as notified by the Federal Bureau of Statistics.
- $WPI_{(Ref)}$ = 119.64, which is the WPI of manufacturing in Pakistan as on July 31, 2006, as notified by the Federal Bureau of Statistics (based on instructions provided by PPIB).

5.4 FOREIGN VARIABLE O&M COST COMPONENT

5.4.1 INDEXATION AND ESCALATION

In accordance with PPIB's instructions and inline with NEPRA approved AGL Tariff Assumptions, the Foreign Variable O&M Cost Component of the Energy Purchase Price shall be quarterly indexed to both:

- (a) the Quarterly Average USD/PKR exchange rate, based on the revised TT & OD selling rate of USD notified by the National Bank of Pakistan; and
- (b) the US CPI, as issued by US Bureau of Labor Statistics.

5.4.2 INDEXATION FORMULA

The Foreign Variable O&M Cost Component shall be quarterly indexed based on the following formula:

$$VO\&M_{(FRev)} = \text{Relevant Reference Generation Tariff Component} * \frac{USCPI_{(Rev)} / US CPI_{(Ref)} * ER_{(Rev)} / USD_{(Ref)} \text{ Rate}}$$

Where:

- $VO\&M_{(FRev)}$ = the revised applicable Foreign Variable O&M Component of the Energy Purchase Price indexed with US CPI and Quarterly Average USD/PKR exchange rate.
- $US CPI_{(Rev)}$ = the revised US CPI, as issued by US Bureau of Labor Statistics.
- $US CPI_{(Ref)}$ = 118.20, which is the US CPI as on July 31, 2006, as issued by US Bureau of Labor Statistics (based on instructions provided by PPIB).
- $ER_{(Rev)}$ = the revised Average TT & OD selling rate of US Dollar as notified by the National Bank of Pakistan.
- $USD_{(ref)} \text{ Rate}$ = PKR 60.00.

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6. CAPACITY PURCHASE PRICE

6.1 SUMMARY

6.1.1 The Capacity Purchase Price component of the Reference Generation Tariff is payable on the basis of dependable capacity, as on the commercial operations date (the **COD**) and periodically thereafter. This payment is calculated on PKR/kW/Month basis of capacity and, in order to calculate a unit rate in PKR/kWh, a notional 60% capacity factor has been utilized.

6.1.2 The following assumptions are used on the reference dates:

DEBT –EQUITY RATIO	<ul style="list-style-type: none"> • 80:20
EXCHANGE RATES	<ul style="list-style-type: none"> • 1 USD = 60 PKR • 1 EUR = 1.2 USD • 1 EUR = 72 PKR
FUNDING	<ul style="list-style-type: none"> • Debt: Local funding 100% • Equity: Local and Foreign
TAXES	<ul style="list-style-type: none"> • Customs Duty on imported equipment: 5% (as per 2002 Private Power Policy) • Withholding Tax on Dividend: 7.5% • Withholding Tax on the local part of the EPC Contract: 6% • Customs Duty on imported spare parts: 10% • Corporate Tax Rate: 0% • Minimum Turnover Tax Rate: 0%

6.1.3 The Capacity Purchase Price is further broken down into the following two components:

- (a) the **Escalable Capacity Purchase Price**; and
- (b) the **Non-Escalable Capacity Purchase Price**.

6.2 THE ESCALABLE COMPONENT

The Escalable Capacity Purchase Price component of the Reference Generation Tariff comprises of the following components for the Project:

- (a) the fixed operations and maintenance cost (the **Fixed O&M Cost Component**);
- (b) the insurance cost (the **Insurance Cost Component**); and
- (c) the cost of working capital facility (the **Cost of Working Capital Component**).

A summary of the Escalable Capacity Purchase Price component of the Reference Generation Tariff, as approved by the GOP, is provided in the table below:

PERIOD	ESCALABLE COMPONENT (PKR/KW – MO)			TOTAL
	FIXED O&M	INSURANCE	COST OF WORKING CAPITAL	
Years 1-25	108.2736	33.9012	52.5022	194.6770

6.2.1 FIXED O&M COST COMPONENT

6.2.1.1 ASSUMPTIONS

The Fixed O&M Cost Component has been prepared based on the following breakdown of the local (the **Local Fixed O&M Cost Component**) and foreign (**Foreign Fixed O&M Cost Component**) parts of the Fixed O&M Cost Component:

LOCAL FIXED O&M COST COMPONENT	32.28%
FOREIGN FIXED O&M COST COMPONENT	67.72%

6.2.1.2 INDEXATION & ESCALATION

In accordance with PPIB's instructions and inline with NEPRA approved AGL Tariff Assumptions, the following indexations shall be applicable to the Fixed O&M Cost Component:

- (a) The Local Fixed O&M Cost Component shall be quarterly indexed to the WPI of manufacturing in Pakistan, as notified by the Federal Bureau of Statistics; and
- (b) The Foreign Fixed O&M Cost Component shall be quarterly indexed to both:
 - (i) the Average USD/PKR exchange rate, based on the revised TT & OD selling rate of USD notified by the National Bank of Pakistan; and
 - (ii) the US CPI, issued by US Bureau of Labor Statistics.

6.2.1.3 INDEXATION FORMULA

Local Fixed O&M Cost Component

The Local Fixed O&M Cost Component shall be quarterly indexed based on the following formula:

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$$\text{FO\&M}_{(\text{LRev})} = \frac{\text{Relevant Reference Generation Tariff Component}^*}{\text{WPI}_{(\text{Rev})} / \text{WPI}_{(\text{Ref})}}$$

Where:

$\text{FO\&M}_{(\text{LRev})}$ = the revised Local Fixed O&M Component of the Capacity Purchase Price indexed with Quarterly WPI of manufacturing in Pakistan.

$\text{WPI}_{(\text{Rev})}$ = the revised WPI of manufacturing in Pakistan, as notified by the Federal Bureau of Statistics.

$\text{WPI}_{(\text{Ref})}$ = 119.64, which is the WPI of manufacturing in Pakistan as on July 31, 2006, as notified by the Federal Bureau of Statistics (based on instructions provided by PPIB).

Foreign Fixed O&M Cost Component

The Foreign Fixed O&M Cost Component shall be quarterly indexed based on the following formula:

$$\text{FO\&M}_{(\text{FRev})} = \frac{\text{Relevant Reference Generation Tariff Component}^*}{\text{USCPI}_{(\text{Rev})} / \text{US CPI}_{(\text{Ref})} * \text{ER}_{(\text{Rev})} / \text{USD}_{(\text{Ref})} \text{ Rate}}$$

Where:

$\text{FO\&M}_{(\text{FRev})}$ = the revised Foreign Fixed O&M Component of the Capacity Purchase Price, indexed with US CPI and Exchange Rate variation.

$\text{US CPI}_{(\text{Rev})}$ = the revised US CPI, issued by US Bureau of Labor Statistics.

$\text{US CPI}_{(\text{Ref})}$ = 118.20, which is the US CPI as on July 31, 2006, as issued by US Bureau of Labor Statistics (based on instructions provided by PPIB).

$\text{ER}_{(\text{Rev})}$ = the revised TT & OD selling rate of US Dollar, as notified by the National Bank of Pakistan

$\text{USD}_{(\text{Ref})} \text{ Rate}$ = PKR 60.00.

6.2.2 **INSURANCE COST COMPONENT**

6.2.2.1 **INDEXATION & ESCALATION**

Based on GOP's instructions and in accordance with NEPRA approved AGL Tariff Assumptions, the Insurance Cost Component shall be quarterly indexed to both:

- (a) the Average USD/PKR exchange rate, based on the revised TT & OD selling rate of USD notified by the National Bank of Pakistan; and
- (b) the US CPI, issued by US Bureau of Labor Statistics.

6.2.2.2 INDEXATION FORMULA

The Insurance Cost Component shall be quarterly indexed based on the following formula:

$$\text{Insurance}_{(\text{Rev})} = \text{Relevant Reference Generation Tariff Component} * \text{US} \\ \text{CPI}_{(\text{Rev})} / \text{US CPI}_{(\text{Ref})} * \text{ER}_{(\text{Rev})} / \text{USD}_{(\text{Ref})} \text{ Rate}$$

Where:

Insurance_(Rev) = the revised Insurance Cost Component of the Capacity Purchase Price indexed with US CPI and Exchange Rate variation.

US CPI_(Rev) = the revised US CPI, issued by US Bureau of Labor Statistics.

US CPI_(Ref) = 118.20, which is the US CPI as on July 31, 2006, as issued by US Bureau of Labor Statistics (based on instructions provided by PPIB).

ER_(Rev) = the Revised TT & OD selling rate of US Dollar as notified by the National Bank of Pakistan.

USD_(Ref) Rate = PKR 60.00.

6.2.3 COST OF WORKING CAPITAL COMPONENT

6.2.3.1 ASSUMPTIONS

A working capital loan facility (the **Working Capital Facility**) is assumed in order to finance the net accounts receivables and working capital impact of 15% sales tax. The cost of working capital loan facility is assumed at 11.54% (6 months KIBOR (8.54%) + 3% premium) with no commitment fee and L/C charge.

6.2.3.2 INDEXATION & ESCALATION

The Cost of Working Capital Component of the Escalable Component of the Reference Generation Tariff shall be indexed to both:

- (a) the Fuel Price Variation; and
- (b) the quarterly changes in the 6 month KIBOR.

6.2.3.3 INDEXATION FORMULA

The Cost of Working Capital Component shall be indexed based on the following formula:

$$\text{CWC}_{(\text{Rev})} = \text{Relevant Reference Generation Tariff Component} * (\text{FP}_{(\text{Rev})} / \\ \text{Fuel Base Rate}) * (\text{Kibor}_{(\text{Rev})} / \text{Kibor}_{(\text{Ref})})$$

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Where:

- CWC_(Rev) = Revised Cost of Working Capital component.
- FP_(Rev) = The new price of RFO per Metric Ton with freight as per the mechanism stated in section 5.2.3 of this Tariff Petition.
- Kibor_(Rev) = The revised 6 month KIBOR rate at the end of each quarter.
- Kibor_(Ref) = 8.54%, as per AGL Tariff Assumptions.

6.3 NON-ESCALABLE CAPACITY PURCHASE PRICE

The Non-Escalable Capacity Purchase Price component of the Reference Generation Tariff comprises of the following components for the Project:

- (a) the principal (the **Principal**) and interest (the **Interest**) component of the debt procured for the Project (the **Debt Service Component**);
- (b) the withholding tax on dividend (the **Withholding Tax Component**); and
- (c) the return on equity (the **ROE**) for the Project.

A summary of the Non-Escalable Capacity Purchase Price component of the Reference Generation Tariff, as approved by the GOP, is provided in the table below:

Non - Escalable Component (Rs/Kw/Month)				
Period	Loan Repayment	Interest Charges	ROE Incl. Tax	Total
Year 1	451.8846	508.4304	188.9094	1,149.2244
Year 2	451.8846	456.2208	188.9094	1,097.0148
Year 3	451.8846	404.0988	188.9094	1,044.8928
Year 4	451.8846	352.9842	188.9094	993.7782
Year 5	451.8846	299.8110	188.9094	940.6050
Year 6	451.8846	247.6452	188.9094	888.4392
Year 7	451.8846	195.5232	188.9094	836.3172
Year 8	451.8846	143.7954	188.9094	784.5894
Year 9	451.8846	91.2354	188.9094	732.0294
Year 10	451.8846	39.0696	188.9094	679.8636
Years 11-25	-	-	188.9094	188.9094

6.3.1 DEBT SERVICE COMPONENT

6.3.1.1 ASSUMPTIONS

It is apparent from the table provided in section 6.3 of this Tariff Petition that there is no charge on account of Loan Repayment and Interest Charges after 10 years since all debt would be repaid by the end of the 10th year. The assumptions used in calculation of the Debt Service Component are:

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TERM OF LOAN:	Construction period + 10 years of semi annual equal principal repayment after COD
INTEREST RATE:	6 months KIBOR (8.54%) + 3% premium
CURRENCY:	PKR

For the purposes of computation of the Debt Service Component of the Generation tariff, 100% local financing has been assumed. In the event KEL obtains a mix of local and foreign debt financing, the interest during construction as well as the Debt Service Component shall be adjusted according to the prevailing relevant interest rate (+spread) and foreign currency exchange rate (for the foreign loan component). It is clarified that in such event, the future benefits of the lower interest rates shall be passed on to the Power Purchaser in exchange of inclusion of the 'Political Risk Insurance' in the Project cost.

6.3.1.2 INDEXATION & ESCALATION

Assuming the Project is financed through 100% local debt financing, the Interest part of the Debt Service Component shall be quarterly indexed to the 6 month KIBOR.

6.3.1.3 INDEXATION FORMULA

The Interest portion of the Debt Service Component shall be indexed based on the following formula:

$$\Delta I = \text{Relevant Generation Tariff Component} * (\text{Kibor}_{(\text{Rev})} / \text{Kibor}_{(\text{Ref})})$$

Where:

ΔI = the variation in interest charges applicable on local loan corresponding to variation in quarterly KIBOR.

$\text{Kibor}_{(\text{Rev})}$ = The revised 6 month KIBOR rate at the end of each quarter.

$\text{Kibor}_{(\text{Ref})}$ = 8.54%, as per AGL Tariff Assumptions

For the purposes of computation of the Indexation of the Debt Service Component of the Reference Generation Tariff, 100% local financing has been assumed. In the event KEL obtains a mix of local and foreign debt financing, the indexation of the Debt Service Component shall be adjusted according to the prevailing relevant interest rate (+spread) and foreign currency exchange rate (for the foreign loan component). It is clarified that in the event KEL uses a mix of foreign and local loan, the future benefits of the lower interest rates shall be passed on to the Power Purchaser in exchange of inclusion of the 'Political Risk Insurance' as a Project cost

6.3.2 THE ROE

6.3.2.1 ASSUMPTIONS

Since there is no recovery of the original equity capital invested, the Project shall remain the property of KEL after the 25 year contract period.

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The ROE component of the Non-Escalable Capacity Purchase Price component of the Reference Generation Tariff is based on the following parameters:

INTERNAL RATE OF RETURN	15% after dividend withholding tax of 7.5%
REPAYMENT OF CAPITAL	None
CURRENCY OF FUNDING	Local Equity : PKR Foreign Equity: US Dollars
CORPORATE TAX RATE	0%
MINIMUM TURNOVER TAX	0%

6.3.2.2 INDEXATION AND ESCALATION

Foreign Portion of ROE

The ROE component related to the foreign portion of the Equity shall be quarterly indexed to quarterly Average USD/PKR exchange rate, based on the revised TT & OD selling rate of USD notified by the National Bank of Pakistan; and

6.3.2.3 INDEXATION FORMULA

KEL's funding program for the Equity is from foreign sourced funds and therefore the ROE component of the Non-Escalable Component of the Reference Generation Tariff shall be indexed using the following formula:

$$ROE_{(Rev)} = \frac{\text{Relevant Reference Generation Tariff Component} * ER_{(Rev)}}{USD_{(Ref)} \text{ Rate}}$$

Where:

- ROE_(Rev) = the revised ROE component of the Capacity Purchase Price indexed with Exchange Rate variation.
- US CPI_(Rev) = the revised US CPI, as issued by US Bureau of Labor Statistics.
- US CPI_(Ref) = 118.20, which is the US CPI as on July 31, 2006, as issued by US Bureau of Labor Statistics (based on instructions provided by PPIB).
- ER_(Rev) = the revised TT & OD selling rate of US Dollar, as notified by the National Bank of Pakistan.
- USD_(Ref) Rate = PKR 60.00.

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6.3.3 WITHHOLDING TAX COMPONENT

6.3.3.1 ASSUMPTIONS

For the purposes of computation of the Withholding Tax Component, a 7.5% Withholding Tax on dividends has been assumed.

6.3.3.2 INDEXATION & ESCALATION

The foreign portion of the Withholding Tax Component of the Non-Escalable Capacity Purchase Price shall be quarterly indexed to Quarterly Average USD/PKR exchange rate, based on the revised TT & OD selling rate of USD notified by the National Bank of Pakistan.

6.3.3.3 INDEXATION FORMULA

The Withholding Tax Component of the Non-Escalable Capacity Purchase Price shall be quarterly indexed based on the following formula:

$$WT_{(Rev)} = \frac{\text{Relevant Reference Generation Tariff Component} * (ER_{(Rev)})}{USD_{(Ref)} \text{ Rate}}$$

Where:

WT_(Rev) = the revised Withholding Tax Component of the Capacity Purchase Price indexed with Exchange Rate variation.

ER_(Rev) = the revised TT & OD selling rate of US Dollar, as notified by the National Bank of Pakistan.

USD_(Ref) Rate = PKR 60.00.

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7. ONE TIME ADJUSTMENTS

7.1 ADJUSTMENTS AT FINANCIAL CLOSE

At the time of Financial Close, the Reference Generation Tariff shall be updated for:

- (a) the Equity for the Project; and
- (b) the actual debt as per term sheet of Lenders submitted to the GOP as per the Implementation Agreement

and the same shall be adjusted for, as applicable:

- (a) the reference exchange rates as on Financial Close; and
- (b) interest rates (including fees and charges).

7.2 ADJUSTMENTS AT COD

7.2.1 The ROE component and the Non-Escalable Capacity Purchase Price will be adjusted by the USD/PKR reference exchange rate variation, based on the computations in Section 5 and 6 of this Tariff Petition.

7.2.2 Assuming 100% local debt financing, the Non-Escalable Capacity Purchase Price shall also be adjusted by the then prevailing 6-month KIBOR.

7.2.3 The Cost of Working Capital Component shall also be updated with prevailing Fuel Price at COD and the prevailing 6 month KIBOR.

7.2.4 Hedging cost during construction and EPC payment will be made part of the Project cost, as required by the Lenders. Otherwise, subject to the Lenders' consent, the final local amount at COD would be based on actual Exchange Rates used by the banks to make payment to the EPC contractor. Actual hedging cost will be used based on forward rates received from leading banks immediately after Financial Close.

7.2.5 After COD, the Reference Generation Tariff Table (as updated on Financial Close) will be indexed to factors, as described above, with the reference date being date of Financial Close and the reference exchange rates for PKR/EUR, PKR/USD and USD/EUR being such rates prevailing on COD.

7.2.6 In summary, at COD, the Reference Generation Tariff will be updated on the basis of:

- (a) Actual interest incurred during the construction period;
- (b) Fuel Price variation;
- (c) Custom Duties and Taxes;
- (d) Adjustment of actual exchange rate of PKR/USD and USD/Euro against the reference exchange rates;
- (e) Changes in KIBOR; and

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(f) EPC Cost.

7.3 BASE CHANGES

7.3.1 Changes in the base price of fuel, i.e., RFO, shall be treated as a pass through cost based on the guaranteed heat rate.

7.4 PASS-THROUGH ITEMS

7.4.1 Any taxes and levies etc. not factored in the Reference Generation Tariff calculation, shall be treated as pass-through items in the PPA.

7.4.2 Any cost over-run beyond the reasonable control of KEL, will be a pass-through.

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8. GENERAL ASSUMPTIONS

The following have been assumed while calculating the Reference Generation Tariff and changes in any of these assumptions will result in changes in the Reference Generation Tariff.

- 8.1 Debt : Equity ratio is assumed to be 80:20.
- 8.2 Interest rate for senior loans is assumed at 11.54% (KIBOR + 3%).
- 8.3 100% of senior loans have been assumed to be local provided however that in the event KEL uses a mix of foreign and local loan, the future benefits of the lower interest rates shall be passed on to the Power Purchaser in exchange of inclusion of the 'Political Risk Insurance' as a Project Cost.
- 8.4 Debt tenure is assumed to be construction period + 10 years semi annual repayment.
- 8.5 Customs duties on imported plant equipment are assumed to be 5% in accordance with the Power Policy 2002.
- 8.6 With-holding tax has been assumed at 6% on the local component of the contract.
- 8.7 No corporate income tax and no minimum turnover tax have been assumed.
- 8.8 With-holding tax of 7.5% on dividends has been assumed.
- 8.9 A constant ROE is assumed which results in an IRR of 15% over 25 years.
- 8.10 No hedging cost has been assumed for exchange rate fluctuations during construction.
- 8.11 The Power Purchaser is assumed to be responsible for financing and constructing the interconnection to the grid.
- 8.12 The Reference Generation Tariff is calculated on the basis of a notional 60% plant load factor.
- 8.13 The price of RFO is assumed to be 22,140.07 PKR/ton (based on APL Tariff Assumptions), which assumes inclusion of freight cost at Site.
- 8.14 The Reference Generation Tariff Table shall be updated at Financial Close as well as on the COD of the Project, in order to correct the Reference Generation Tariff according to the prevailing KIBOR and exchange rates (PKR/USD, USD/EUR and PKR/EUR).
- 8.15 The exchange rate has been assumed to be 60 for PKR/USD; 72 for PKR/EUR; and 1.2 for USD/EUR.
- 8.16 The cost of the existing infrastructure has not been charged upfront.
- 8.17 Working capital has been financed by a separate working capital loan, and is not included in the Project cost.

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- 8.18 Project contingency is not included in Reference Generation Tariff calculations. If required by Lenders, these will be adjusted accordingly in the Reference Generation Tariff.
- 8.19 The cost of the L/C in favour of the Power Purchaser is not included in Reference Generation Tariff.

In light of the submissions, the financial analysis and information contained in this Tariff Petition, along with the Annexures attached hereto, and in the national interest of expediting the capacity expansion process of the KEL initiated by GOP on a fast track basis, this Tariff Petition is submitted for NEPRA's formal approval of the GOP approved Reference Generation Tariff

Respectfully submitted for and on behalf of KEL:

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 DR. UMER MASOOD
 DIRECTOR & CHIEF OPERATING OFFICER
 KOHINOOR ENERGY LIMITED

ANNEXURE A REFERENCE GENERATION TARIFF TABLE

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REFERENCE GENERATION TARIFF TABLE

Agreement Year	ENERGY PURCHASE PRICE Rupees / kWh			CAPACITY PURCHASE PRICE Rupees / kW / hr										Total CPP Rs./kWh	Total CPP calculated as Rs./kWh	Total Tariff Rs./kWh	Total Tariff US C./kWh
	Fuel Component	Variable O&M Component	Total	Escalable Component					Non-Escalable Component								
				Fixed O&M	Insurance	Financing Cost on Working Capital	ROE		Withholding Tax @ 7.5%		Debt Service Principal	Debt Service Interest					
							Local	Foreign	Local	Foreign							
1	4.3626	0.4059	4.7685	0.1483	0.0464	0.0686	0.0467	0.1927	0.0038	0.0156	0.6190	0.0965	1.8376	3.0627	7.8312	13.0520	
2	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.6190	0.6250	1.7696	2.9493	7.7178	12.8630	
3	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.6190	0.5536	1.6982	2.8303	7.5988	12.6647	
4	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.6190	0.4835	1.6282	2.7136	7.4821	12.4702	
5	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.6190	0.4107	1.5553	2.5922	7.3607	12.2678	
6	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.6190	0.3392	1.4839	2.4731	7.2416	12.0693	
7	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.6190	0.2678	1.4125	2.3541	7.1226	11.8710	
8	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.6190	0.1970	1.3416	2.2360	7.0045	11.6742	
9	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.6190	0.1250	1.2696	2.1160	6.8845	11.4742	
10	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.6190	0.0535	1.1981	1.9969	6.7654	11.2757	
11	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	-	-	0.5256	0.8760	6.6445	9.4075	
12	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	-	-	0.5256	0.8760	6.6445	9.4075	
13	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	-	-	0.5256	0.8760	6.6445	9.4075	
14	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	-	-	0.5256	0.8760	6.6445	9.4075	
15	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	-	-	0.5256	0.8760	6.6445	9.4075	
16	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	-	-	0.5256	0.8760	6.6445	9.4075	
17	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	-	-	0.5256	0.8760	6.6445	9.4075	
18	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	-	-	0.5256	0.8760	6.6445	9.4075	
19	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	-	-	0.5256	0.8760	6.6445	9.4075	
20	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	-	-	0.5256	0.8760	6.6445	9.4075	
21	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	-	-	0.5256	0.8760	6.6445	9.4075	
22	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	-	-	0.5256	0.8760	6.6445	9.4075	
23	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	-	-	0.5256	0.8760	6.6445	9.4075	
24	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	-	-	0.5256	0.8760	6.6445	9.4075	
25	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	-	-	0.5256	0.8760	6.6445	9.4075	
Averages 1- 10	4.3626	0.4059	4.7685	0.1483	0.0464	0.0717	0.0467	0.1927	0.0038	0.0156	0.6190	0.3752	1.5195	2.5324	7.3009	12.1682	
Averages 11- 25	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	-	-	0.5256	0.8760	6.6445	9.4075	
Averages 1- 25	4.3626	0.4059	4.7685	0.1483	0.0464	0.0719	0.0467	0.1927	0.0038	0.0156	0.2476	0.1501	0.9231	1.5386	6.3071	10.5118	

LEVELIZED TARIFF

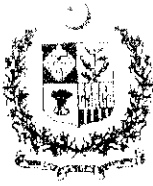
NPV	39.5995	3.6844	43.2839	1.3463	0.4215	0.6509	0.4243	1.7488	0.0343	0.1416	3.8036	2.6453	11.2166	18.6944	61.9783	103.2971
Rs	4.3626	0.4059	4.7685	0.1483	0.0464	0.0717	0.0467	0.1927	0.0038	0.0156	0.4190	0.2914	1.2357	2.0595	6.8280	11.3800
US Cents	7.2710	0.6765	7.9475	0.2472	0.0774	0.1195	0.0779	0.3211	0.0063	0.0260	0.6984	0.4957	2.0595	3.4325	11.3800	11.3800

ANNEXURE B
RELEVANT CORRESPONDENCE

H. V. S.

**GOP LETTER TO KEL, THROUGH PPIB, DATED
APRIL 24, 2007
APPROVING
KEL'S REFERENCE GENERATION TARIFF**

f.v. ?



GOVERNMENT OF PAKISTAN
MINISTRY OF WATER & POWER
PRIVATE POWER & INFRASTRUCTURE BOARD

MANAGING DIRECTOR

No. 1(102)PPIB-IPP/EX/07/TIN
24th April 2007

Subject: Fast-Track Capacity Expansion by Existing IPPs

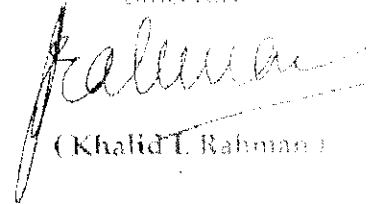
Dear Sirs,

We are pleased to inform you that the GoP has approved the tariff for your capacity expansion projects.

The next step for the Sponsors is to apply to NEPRA for normal tariff approval / Tariff Order on the pattern of Attock Generation Limited. You are accordingly, requested to move forward in this regard, at the earliest.

Best regards,

Sincerely,


(Khalid T. Rahman)

1. Mr. Tabish Tapal
Chief Executive
Tapal Energy (Private) Limited
6/25, Block 5
Kehkashan, Clifton
Karachi - 75600
Fax: 021-5876991-93
2. Mr. Haruyoshi Murakami
Chief Executive
Kohinoor Energy Limited
17 Aziz Avenue, Unit No. 3
Lahore.
Fax: 042-5715090
3. Mr. Nadeem Babar
Chief Executive
Japan Power Generation Limited
Ha Bagga, Off Raiwind Road
Lahore.
Fax: 042-5835860

Cc:

1. Chairman, NEPRA, Islamabad.
2. General Manager (WPPÖ), WAFDA House, Lahore.



50 - Nazimuddin Road, F-7/4, Islamabad - Pakistan
Tel: (92-51) Direct: 9203142 PABX: 9205421-23, 9206357 Fax: (92-51) 9217735, 9215725
Email: ppib@ppib.gov.pk Internet: http://www.ppib.gov.pk

H. v. ?

**KEL LETTER TO PPIB DATED AUGUST 28, 2006
ACCOMPANYING THE BID**

K. V. J.



**KOHINOOR
ENERGY LIMITED**

TOYOTA
TSUSHO

KEL/EXS-247-2006

August 28, 2006

Mr. Khalid I. Rahman
Managing Director
Private Power and Infrastructure Board
Ministry of Water and Power, Government of Pakistan
50 Nazimuddin Road
Sector F-7/4, Islamabad.

Dear Sir:

SUBJECT: KOHINOOR ENERGY LIMITED ("KEL") BID IN RESPONSE TO
PPIB'S REQUEST FOR PROPOSAL FOR FAST TRACK CAPACITY
EXPANSION BY EXISTING IPPs

We submit herewith Kohinoor Energy Limited's bid to the Private Power and Infrastructure Board ("PPIB") for the fast track capacity expansion of its existing power generation plant (the "Bid"), subject to and in accordance with the terms and conditions of the Request for Proposals, dated May 29, 2006, as amended from time to time, the draft Implementation Agreement, the draft Power Purchase Agreement, each as marked-up with our amendments, and the Exhibits and Appendices attached to the Bid.

In accordance with the RFP and Addendum III to the RFP, we also enclose herewith a Pay Order, No. 6855847, drawn on ABN Amro Bank and payable at any Pakistan branch of ABN Amro

Head Office & Plant: Kohinoor Energy Ltd. Near Tablighi Jilana P/O Kohinoor Energy, Raiwind Bypass, Lahore. UAN: +92 42 111-111-535 Tel: +92 42 5392317 Fax: +92 42 5393415-17
Lahore Office: 17-Aziz Avenue Unit # 4, Canal Bank Gulberg V, Lahore. Tel: +92 42 5717661-2 Fax: +92 42 5715090 E-mail: info@kel.com.pk Web: www.kel.com.pk

K. I. Rahman



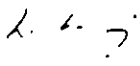
KOHINOOR
ENERGY LIMITED

TOYOTA
TSUSHO

Bank, the first payment of the evaluation fee for the amount of Rs. 1,830,000 (equivalent to U.S.\$ 30,000).

Regards,

Yours Sincerely,
For KOHINOOR ENERGY LIMITED


Dr. UMER MASOOD TARIQ
Chief Operating Officer

Enclosures: As above.