



National Electric Power Regulatory Authority

Islamic Republic of Pakistan

Registrar

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E-mail: office@nepra.org.pk

No. NEPRA/TRF-76/KEL-2007/2809-11
June 29, 2007

Subject: Decision of the Authority w.r.t Tariff Petition filed by Kohinoor Energy Limited (KEL) (Case No. NEPRA/TRF-76/KEL-2007) Pursuant to ECC's Decision (Case No. ECC-40/03/2007 dated 10.04.2007) for Formal Approval/Tariff Order
Intimation of Decision of Tariff pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997)

Dear Sir,

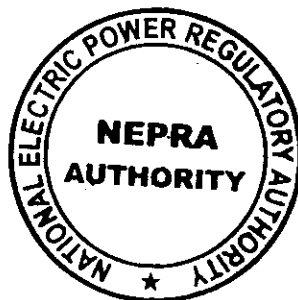
Please find enclosed the subject decision of the Authority along with Annex-I (08 pages) in Case No. NEPRA/TRF-76/KEL-2007.

2. The decision is being intimated to the Federal Government for the purpose of notification of the approved tariff in the official gazette pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997) and Rule 16(11) of the National Electric Power Regulatory Authority Tariff (Standards and Procedure) Rules, 1998.

3. Please note that only Order of the Authority at para 5 of the decision relating to the Reference Tariff Schedule along with Annex-I needs to be notified in the official gazette. The Order is reproduced for the purpose of clarity and is attached herewith.

DA/as above.

The Secretary
Cabinet Division
Government of Pakistan
Cabinet Secretariat
Islamabad



(Signature)
29.06.07.
(Mahjoob Ahmad Mirza)

CC:

1. Secretary, Ministry of Water & Power, Islamabad.
2. Secretary, Ministry of Finance, Islamabad.

ORDER OF THE AUTHORITY
IN CASE NO. NEPRA/TRF-76/KEL-2007
TO BE NOTIFIED IN THE OFFICIAL GAZETTE

Pursuant to Rule 6 of the NEPRA Licensing (Generation) Rules 2000, Kohinoor Energy Limited (KEL) is allowed to charge, subject to adjustment of Capacity Purchase Price on account of net dependable capacity as determined by test jointly carried out by Central Power Purchasing Agency (CPPA) and the petitioner, the reference tariff schedule (**Annex-I**) for delivery of electricity to CPPA of NTDC for procurement on behalf of EX-WAPDA Distribution Companies.

The following indexations shall be applicable to reference tariff.

I) **One Time Adjustment**

a) **Adjustment due to variation in net capacity**

The reference tariff has been determined on the basis of minimum net capacity of 143 MW at delivery point at mean site conditions. All the tariff components except fuel cost component shall be adjusted at the time of COD based upon the IDC tests to be carried out for determination of contracted capacity. If the IDC is established higher than 143 MW, the adjustments shall be made according to the following formula:

i)	Fixed O&M	=	0.1483/tested IDC x 143 MW
ii)	Insurance	=	0.0464/tested IDC x 143 MW
iii)	Debt Service (Ref)	=	DS _(Ref) /tested IDC x 143 MW
iv)	Return on Equity	=	0.2394/tested IDC x 143 MW
v)	Variable O&M - Foreign	=	0.3216/tested IDC x 143 MW
vi)	Variable O&M – Local	=	0.0843/tested IDC x 143 MW

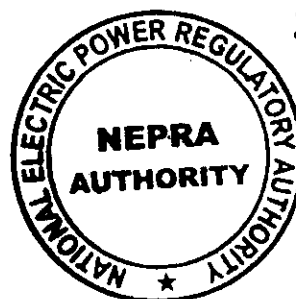
b) **Adjustment in Insurance Component**

Insurance component of reference tariff shall be adjusted as per actual on yearly basis upon production of authentic documentary evidence by KEL according to the following formula:

$$\text{Insurance (Rev)} = \text{Ins}_{(\text{Adj})} / (0.0464 * \text{NC} * 1000 * 8760 / 10^6) * \text{AP} / 60 * \text{ER}_{(\text{Rev})}$$

Where;

$$\text{Ins}_{(\text{Adj})} = \text{Adjusted insurance at COD}$$



NC = Net Capacity in MW at COD
AP = Actual Premium subject to maximum of Reference Percentage (US\$) determined at COD
ER_(Rev) = Revised Exchange Rate

c) Adjustment due to custom duties and Interest during Construction

The tariff is approved by ECC and it includes Custom Duties and Interest During Construction therefore no adjustment on this accounts is required.

II) Pass-Through Items

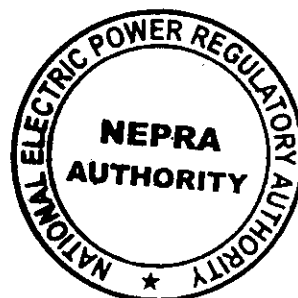
No provision for income tax has been accounted for in the tariff. If KEL is obligated to pay any tax on its income, the exact amount paid by the company may be reimbursed by NTDC to KEL on production of original receipts. This payment may be considered as pass-through (as Rs./kW/Hour) monthly payment spread over a 12 months period in addition to the capacity purchase price in the Reference Tariff. Furthermore, in such a scenario, KEL may also submit to NTDC details of any tax shield savings and NTDC may deduct the amount of these savings from its payment to KEL on account of taxation. Withholding Tax is also a pass through item just like other taxes as indicated in the government guidelines for determination of tariff for new IPPs.

Withholding tax shall be allowed @ 7.5% (or applicable rate) of the return on equity. CPPA (NTDC) shall make payment on account of withholding tax at the time of actual payment of dividend subject to maximum of 7.5% (or applicable rate) of 15% of equity.

In case Company does not declare a dividend in a particular year or only declares a partial dividend, then the difference in the withholding tax amount (between what is paid in that year and the total entitlement as per the Net Return on Equity) would be carried forward and accumulated so that the Company is able to recover the same as a pass through from the Power Purchaser in future on the basis of the total dividend pay out.

III). Indexations

The following indexations shall be applicable to reference tariff.



a) Indexation applicable to O&M

In future the 50% of Fixed O&M part of Capacity Charge will be adjusted on account of local Inflation (WPI) and 50% on account of variation in US CPI and dollar/Rupee exchange rate. Quarterly adjustment for local inflation, foreign inflation and exchange rate variation will be made on 1st July, 1st October, 1st January and 1st April based on the average of the available information with respect to WPI notified by the Federal Bureau of Statistics (FBS), US CPI issued by US Bureau of Labor Statistics and revised TT & OD selling rate of US Dollar notified by the National Bank of Pakistan. The mode of indexation will be as under:

b) Fixed O&M

$$F O\&M_{(LREV)} = \text{Rs. } 0.1483 \text{ per kW per Hour} * 50\% * WPI_{(REV)} / 117.80$$

$$F O\&M_{(FREV)} = \text{Rs. } 0.1483 \text{ per kW per hour} * 50\% * US CPI_{(REV)} / 199.8 * ER_{(REV)} / 60$$

Where:

$F O\&M_{(LREV)}$ = The revised applicable Fixed O&M Local Component of the Capacity Charge indexed with WPI

$F O\&M_{(FREV)}$ = The revised applicable Fixed O&M Foreign Component of the Capacity Charge indexed with US CPI and Exchange rate variations.

$WPI_{(REV)}$ = The revised wholesale Price Index (manufacturers)

$WPI_{(REF)}$ = 117.80 wholesale price index (manufacturers) of April 2006 notified by Federal Bureau of Statistics

$US CPI_{(REV)}$ = The revised US CPI

$US CPI_{(REF)}$ = 199.8 US CPI for the month of March 2006 as notified by the US Bureau of Labor Statistics

$ER_{(REV)}$ = The revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan

Note: The reference numbers indicated above shall be replaced by the revised numbers after incorporating the required adjustments at COD.

c) Variable O&M

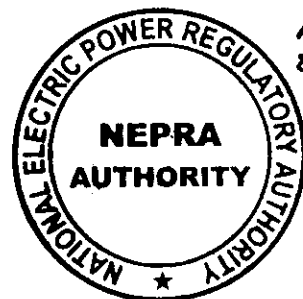
The formula of indexation for variable O & M component will be as under:

$$V O\&M_{(FREV)} = \text{Rs. } 0.3216 \text{ per kWh} * US CPI_{(REV)} / 199.8 * ER_{(FREV)} / 60$$

$$V O\&M_{(LREV)} = \text{Rs. } 0.0843 \text{ per kWh} * WPI_{(REV)} / 117.80$$

Where:

$V O\&M_{(FREV)}$ = The revised applicable Variable O&M Component of the



Energy Charge indexed with US CPI and Exchange rate variations

- US CPI_(REV) = The revised US CPI
US CPI_(REF) = 199.8 US CPI for the month of March 2006 as notified by the US Bureau of Labor Statistics
ER_(REV) = The revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan.

Note: The reference VO&M indicated above shall be replaced with the revised number at COD after incorporating the required adjustment based upon the IDC Test.

d) Adjustment for KIBOR variation

The interest part of fixed charge component will remain unchanged throughout the term except for the quarterly adjustment due to variations in interest rate as a result of variation in 3-monthly KIBOR according to the following formula:

$$\Delta I = NC/1000 * (8760/4) * Q_{(R)} * LR_{(Ref)} * (KIBOR_{(REV)} - 8.54\%) / 4$$

Where:

ΔI = The variation in interest charges applicable corresponding to variation in 3-monthly KIBOR. ΔI can be positive or negative depending upon whether KIBOR REV is > or < 8.54%. The interest payment obligation will be enhanced or reduced to the extent of ΔI for each quarter under adjustment on quarterly basis.

- NC = Net Capacity established at COD
 $Q_{(R)}$ = Remaining quarters of Loan Repayment
 $LR_{(Ref)}$ = Reference Loan Repayment component of tariff established at COD

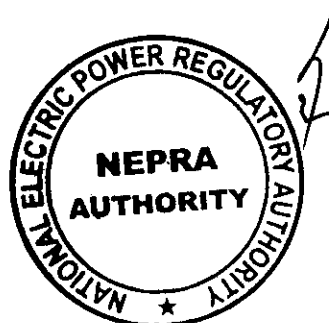
e) Fuel Price Variation

The Variable Charge Part of the tariff relating to fuel cost shall be adjusted on account of the fuel price variations according to the following formula:

$$FC_{(Rev)} = Rs.4.3626 \text{ per kWh} * FP_{(Rev)} / Rs. 22,140.07 \text{ per Ton} + 0.4532 * Ft_{(Rev)} / Rs.2,300 \text{ per ton}$$

Where:

- $FC_{(Rev)}$ = Revised fuel cost component of Variable Charge on RFO.
 $Ft_{(Rev)}$ = Revised Freight Charges
 $FP_{(Rev)}$ = The new price of RFO per Metric Ton as per the following mechanism;



Description	US\$/Ton	Rs./Ton
1. Arab Gulf Mean Price Premium i.e. Freight + Margin + Blending		
2. C&F Price (1 + 2)		
3. Import Incidentals		
i. Bank Charges 0.10% of c&f		
ii. LC Commission 0.15% of c&f		
iii. Marine Insurance 0.108% of c&f		
iv. Handling Charges 0.15% of c&f		
v. Ocean Losses 0.50% of c&f		
vi. FOTCO charges		
4. Landed cost (2 + 3)		
5. Ad Valorem Duty # 1% of landed cost		
6. GST @ 15% of 4 + 5		
7. OMC Margin (3.5% of 4 + 5 + 6)		
8. GST on OMC Margin (15% of 7)		
9. Marketing/Selling Price of RFO ex-OM installation Karachi (4 + 5 + 6 + 7 + 8)		
10. Inland Freight (at actual)		Rs./Ton
11. GST on Inland Freight @ 15%		Rs./Ton
12. Delivered Price of RFO to IPP (Rupees per ton) (9 + 10 + 11)		Rs./Ton

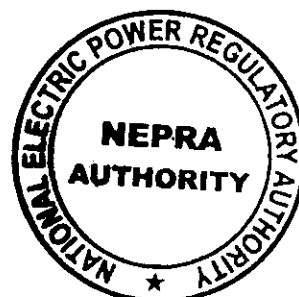
US\$ Pak Rupee Exchange Rate-NBP Selling TT/OD at the date of applicable fuel price

- * The supplier shall clearly indicate average Gross and Net calorific values of Arabian Gulf or any other source of which average reference fuel prices are used. Fuel supplier shall provide price adjustment mechanism due to variation in calorific value of the fuel being supplied to the IPP against the reference calorific values.
- ** Fuel supplier shall provide item wise actual incidental charges prevailing at the time of receiving payment for fuel supply.

The fuel cost component will be adjusted after the commercial operation date, at the time of revision in RFO price. Adjustment on account of local inflation, foreign inflation, foreign exchange rate variation, KIBOR variation and fuel price variation will be approved and announced by the Authority for immediate application within seven working days after receipt of KEL's request for adjustment in accordance with the requisite indexation mechanism stipulated herein.

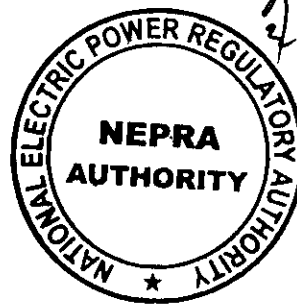
Terms and Conditions of Tariff:

- i) All new equipment will be installed and the plant will be of standard configuration.
- ii) Capacity Charge Rs./kW/hour is applicable to available capacity at the delivery Point.
- iii) Dispatch criterion will be based on the Energy Charge.
- iv) Partial loading adjustment shall be applicable for the purpose of payment according to manufacturer's heat rate curves in case the plant load falls below 40%.



- v) 45% net efficiency at site over the 25 years life cycle of plant.
- vi) No compensation for start-up/shutdown charges will be allowed.
- vii) The above tariff is applicable for a period of 25 years commencing from the date of the Commercial Operation.

The above terms and conditions be incorporated as the specified tariff approved by the Authority pursuant to Rule 6 of the Licencing (Generation) Rules, in a Power Purchase Agreement between KEL and CPPA.



REFERENCE GENERATION TARIFF TABLE



Agreement Year	ENERGY PURCHASE PRICE Rupees / kWh			CAPACITY PURCHASE PRICE Rupees / kW / hr										Total CPP 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				
							Local	Foreign	Local	Foreign	Principal	Interest				
1	4.3626	0.4059	4.7685	0.1483	0.0464	0.0686	0.0467	0.1927	0.0038	0.0156	0.0150	0.6465	1.8376	13.0520		
2	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.0150	0.6250	1.7696	12.8630		
3	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.0156	0.5536	1.6982	12.6647		
4	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.0190	0.4835	1.6282	12.4702		
5	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.0190	0.4107	1.5553	12.2678		
6	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.0190	0.3392	1.4839	12.0693		
7	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.0190	0.2678	1.4125	11.8710		
8	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.0190	0.1970	1.3416	11.6742		
9	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.0190	0.1250	1.2696	11.4742		
10	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	0.0190	0.0535	1.1901	11.2757		
11	4.3626	0.4059	4.7685	0.1483	0.0464	0.0721	0.0467	0.1927	0.0038	0.0156	-	-	0.5250	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	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	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	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	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	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	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	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	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	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	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	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	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	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	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	0.0156	0.0156	0.0156	0.3752	1.5195	2.5324	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	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	1.5366	0.9231	1.5366	10.5118

LEVELIZED TARIFF

NPV	39.5995	3.6844	43.2839	1.3403	0.4215	0.6509	0.4243	1.7488	0.0343	0.1416	3.8038	2.6453	11.2166	18.6944	61.9783	103.2871
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	0.4857	2.0595	3.4325	12.3071	20.5118

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Decision of the Authority Regulatory Meeting (RM) 07-224 Dated June 26, 2007 w.r.t. Tariff Petition filed by Kohinoor Energy Limited (KEL) Pursuant to ECC's Decision (Case No. ECC-40/03/2007 dated: 10.4.2007) for Formal Approval/Tariff Order

The Authority considered the application of Kohinoor Energy Ltd. (KEL) located near Tablighi Ijetima, 6 K.M Raiwind Bypass Road, Lahore, for formal approval/Tariff Order of the Authority pursuant to ECC's decision (case no. ECC-40/03/2007 dated 10.4.2007) in its meeting in which it approved paras 4, 5 and 6 of the summary submitted by the Ministry of Water & Power. Relevant extract of the summary is as under;

"Para 4 of the Summary

The Board of PPIB has recommended that the tariff for the three existing IPPs as noted in the table under para 2, based on the assumptions set out in Annex-IV, be approved. Decision of the Board are at Annex-V.

Para 2 of the Summary

After an elaborate process entailing three rounds of bidding (details at Annex-II), the following tariffs have been arrived at:

<i>Company</i>	<i>Fuel Cost (Rs./kWh)</i>	<i>Variable O&M (Rs./kWh)</i>	<i>Total EPP (Rs./kWh)</i>	<i>Total CPP (Rs./kWh)</i>	<i>Levellized Tariff (Rs./kWh)</i>	<i>Levellized Tariff (US\$/kWh)</i>
<i>Kohinoor Energy</i>	4.3626	0.4059	4.7685	2.0595	6.8280	11.3800
<i>Tapal Energy</i>	4.3626	0.4319	4.7945	2.0335	6.8280	11.3800
<i>Japan Power</i>	4.3624	0.4319	4.7943	2.0337	6.8280	11.3800

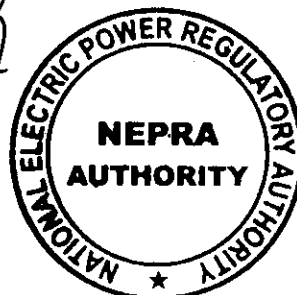
* According to PPIB summary details tariff sheets of the three projects are at Annex-III

Para 5 of the Summary

The Board has further recommended that commissioning of these projects be allowed within the first quarter of 2009, instead of the ECC's earlier approval for up to October 2008.

Para 6 of the Summary

Section 1.10 of the tariff Guidelines stipulates that "Once a tariff has been arrived at through competitive biddings ... it should not be subjected to further review by NEPRA. The lowest evaluated levellized tariff would be recommended to the GoP for acceptance." This summary is thus submitted to seek GoP approval. It is recommended that NEPRA should formally issue detail tariff approval and Tariff Order on the pattern of Attock Generation Ltd."



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2. For the purpose of record PPIB was asked vide letter no. NEPRA/R/TRF-100/2646 dated June 14, 2007, to provide certain information and confirmation regarding the bidding process, which was partially provided vide letter no. 6(611)PPIB-IPP.EXP/07/FIN dated 18th June, 2007.
3. The Authority has been informed that the tariff has been arrived at through a competitive bidding process and has been approved by ECC therefore it does not require further prudence of cost review by the Authority in terms of Section 1.10 of Tariff Guidelines issued by GoP.
4. The Authority considers that the bidding process has been carried out by PPIB as a board established by and performing under the Ministry of Water & Power for attracting and facilitating investment in power generation. The rate said to have been arrived at through a competitive bidding among existing IPPs, recommendation to the Federal Government after negotiation and the consideration and subsequent approval by the ECC renders adequate credibility to the process. In view of the massive load shedding in the country, the inconvenience to the public and consequent disturbances in the streets it is considered prudent by the Authority not to disturb the finality of the process through another prudence review. Such an action is liable to delay the advent of critically required additional generation capacity in the country and would therefore not be in the public interest.
5. In view of the above the Authority hereby approves the tariff of Kohinoor Energy Limited (KEL) as set out in the following order;

ORDER

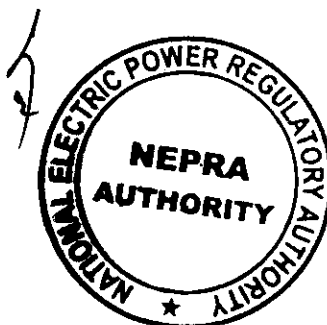
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The following indexations shall be applicable to reference tariff.

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a) **Adjustment due to variation in net capacity**

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IDC tests to be carried out for determination of contracted capacity. If the IDC is established higher than 143 MW, the adjustments shall be made according to the following formula:

i)	Fixed O&M	=	0.1483/tested IDC x 143 MW
ii)	Insurance	=	0.0464/tested IDC x 143 MW
iii)	Debt Service _(Ref)	=	DS _(Ref) /tested IDC x 143 MW
iv)	Return on Equity	=	0.2394/tested IDC x 143 MW
v)	Variable O&M - Foreign	=	0.3216/tested IDC x 143 MW
vi)	Variable O&M – Local	=	0.0843/tested IDC x 143 MW

b) Adjustment in Insurance Component

Insurance component of reference tariff shall be adjusted as per actual on yearly basis upon production of authentic documentary evidence by KEL according to the following formula:

$$\text{Insurance}_{(\text{Rev})} = \text{Ins}_{(\text{Adj})} / (0.0464 * \text{NC} * 1000 * 8760 / 10^6) \times \text{AP} / 60 * \text{ER}_{(\text{Rev})}$$

Where;

Ins_(Adj) = Adjusted insurance at COD

NC = Net Capacity in MW at COD

AP = Actual Premium subject to maximum of Reference Percentage (US\$) determined at COD

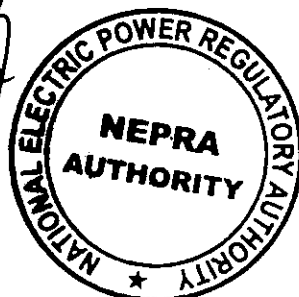
ER_(Rev) = Revised Exchange Rate

c) Adjustment due to custom duties and Interest during Construction

The tariff is approved by ECC and it includes Custom Duties and Interest During Construction therefore no adjustment on this accounts is required.

II) Pass-Through Items

No provision for income tax has been accounted for in the tariff. If KEL is obligated to pay any tax on its income, the exact amount paid by the company may be reimbursed by NTDC to KEL on production of original receipts. This payment may be considered as pass-through (as Rs./kW/Hour) monthly payment spread over a 12 months period in addition to the capacity purchase price in the Reference Tariff. Furthermore, in such a scenario, KEL may also submit to NTDC details of any tax shield savings and NTDC may deduct the amount of



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these savings from its payment to KEL on account of taxation. Withholding Tax is also a pass through item just like other taxes as indicated in the government guidelines for determination of tariff for new IPPs.

Withholding tax shall be allowed @ 7.5% (or applicable rate) of the return on equity. CPPA (NTDC) shall make payment on account of withholding tax at the time of actual payment of dividend subject to maximum of 7.5% (or applicable rate) of 15% of equity.

In case Company does not declare a dividend in a particular year or only declares a partial dividend, then the difference in the withholding tax amount (between what is paid in that year and the total entitlement as per the Net Return on Equity) would be carried forward and accumulated so that the Company is able to recover the same as a pass through from the Power Purchaser in future on the basis of the total dividend pay out.

III). Indexations

The following indexations shall be applicable to reference tariff.

a) Indexation applicable to O&M

In future the 50% of Fixed O&M part of Capacity Charge will be adjusted on account of local Inflation (WPI) and 50% on account of variation in US CPI and dollar/Rupee exchange rate. Quarterly adjustment for local inflation, foreign inflation and exchange rate variation will be made on 1st July, 1st October, 1st January and 1st April based on the average of the available information with respect to WPI notified by the Federal Bureau of Statistics (FBS), US CPI issued by US Bureau of Labor Statistics and revised TT & OD selling rate of US Dollar notified by the National Bank of Pakistan. The mode of indexation will be as under:

b) Fixed O&M

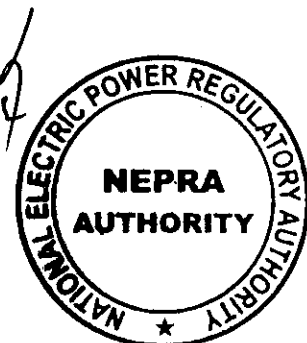
$$F O\&M_{(LREV)} = \text{Rs. } 0.1483 \text{ per kW per Hour} * 50\% * WPI_{(REV)} / 117.80$$

$$F O\&M_{(FREX)} = \text{Rs. } 0.1483 \text{ per kW per hour} * 50\% * US CPI_{(REV)} / 199.8 * ER_{(REV)} / 60$$

Where:

$F O\&M_{(LREV)}$ = The revised applicable Fixed O&M Local Component of the Capacity Charge indexed with WPI

$F O\&M_{(FREX)}$ = The revised applicable Fixed O&M Foreign Component of the Capacity Charge indexed with US CPI and Exchange rate variations.



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- $WPI_{(REV)}$ = The revised wholesale Price Index (manufacturers)
 $WPI_{(REF)}$ = 117.80 wholesale price index (manufacturers) of April 2006 notified by Federal Bureau of Statistics
 $US\ CPI_{(REV)}$ = The revised US CPI
 $US\ CPI_{(REF)}$ = 199.8 US CPI for the month of March 2006 as notified by the US Bureau of Labor Statistics
 $ER_{(REV)}$ = The revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan

Note: The reference numbers indicated above shall be replaced by the revised numbers after incorporating the required adjustments at COD.

c) Variable O&M

The formula of indexation for variable O & M component will be as under:

$$V\ O\&M_{(FREV)} = \text{Rs. } 0.3216 \text{ per kWh} * US\ CPI_{(REV)} / 199.8 * ER_{(FREV)} / 60$$

$$V\ O\&M_{(LREV)} = \text{Rs. } 0.0843 \text{ per kWh} * WPI_{(REV)} / 117.80$$

Where:

- $V\ O\&M_{(FREV)}$ = The revised applicable Variable O&M Component of the Energy Charge indexed with US CPI and Exchange rate variations
 $US\ CPI_{(REV)}$ = The revised US CPI
 $US\ CPI_{(REF)}$ = 199.8 US CPI for the month of March 2006 as notified by the US Bureau of Labor Statistics
 $ER_{(REV)}$ = The revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan.

Note: The reference VO&M indicated above shall be replaced with the revised number at COD after incorporating the required adjustment based upon the IDC Test.

d) Adjustment for KIBOR variation

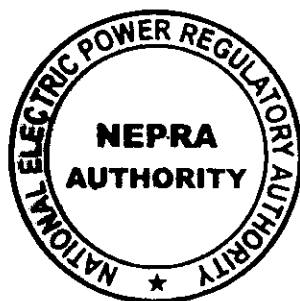
The interest part of fixed charge component will remain unchanged throughout the term except for the quarterly adjustment due to variations in interest rate as a result of variation in 3-monthly KIBOR according to the following formula:

$$\Delta I = NC / 1000 * (8760 / 4) * Q_{(R)} * LR_{(Ref)} * (KIBOR_{(REV)} - 8.54\%) / 4$$

Where:

- ΔI = The variation in interest charges applicable corresponding to variation in 3-monthly KIBOR. ΔI can be positive or negative depending upon whether KIBOR REV is > or < 8.54%. The interest payment obligation will be enhanced or reduced to the extent of ΔI for each quarter under adjustment on quarterly basis.

- NC = Net Capacity established at COD



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$Q_{(R)}$ = Remaining quarters of Loan Repayment
 $LR_{(Ref)}$ = Reference Loan Repayment component of tariff established at COD

e) Fuel Price Variation

The Variable Charge Part of the tariff relating to fuel cost shall be adjusted on account of the fuel price variations according to the following formula:

$$FC_{(Rev)} = Rs.4.3626 \text{ per kWh} * FP_{(Rev)} / Rs. 22,140.07 \text{ per Ton} + 0.4532 * Ft_{(Rev)} / Rs.2,300 \text{ per ton}$$

Where:

$FC_{(Rev)}$ = Revised fuel cost component of Variable Charge on RFO.
 $Ft_{(Rev)}$ = Revised Freight Charges
 $FP_{(Rev)}$ = The new price of RFO per Metric Ton as per the following mechanism;

Description	US\$/Ton	Rs./Ton
1. Arab Gulf Mean Price Premium i.e. Freight + Margin + Blending		
2. C&F Price (1 + 2)		
3. Import Incidentals		
i. Bank Charges 0.10% of c&f		
ii. LC Commission 0.15% of c&f		
iii. Marine Insurance 0.108% of c&f		
iv. Handling Charges 0.15% of c&f		
v. Ocean Losses 0.50% of c&f		
vi. FOTCO charges		
4. Landed cost (2 + 3)		
5. Ad Valorem Duty # 1% of landed cost		
6. GST @ 15% of 4 + 5		
7. OMC Margin (3.5% of 4 + 5 + 6)		
8. GST on OMC Margin (15% of 7)		
9. Marketing/Selling Price of RFO ex-OM installation Karachi (4 + 5 + 6 + 7 + 8)		
10. Inland Freight (at actual)		Rs./Ton
11. GST on Inland Freight @ 15%		Rs./Ton
12. Delivered Price of RFO to IPP (Rupees per ton) (9 + 10 + 11)		Rs./Ton

US\$ Pak Rupee Exchange Rate-NBP Selling TT/OD at the date of applicable fuel price

* The supplier shall clearly indicate average Gross and Net calorific values of Arabian Gulf or any other source of which average reference fuel prices are used. Fuel supplier shall provide price adjustment mechanism due to variation in calorific value of the fuel being supplied to the IPP against the reference calorific values.

** Fuel supplier shall provide item wise actual incidental charges prevailing at the time of receiving payment for fuel supply.

The fuel cost component will be adjusted after the commercial operation date, at the time of revision in RFO price. Adjustment on account of local inflation, foreign inflation, foreign exchange rate variation, KIBOR variation and fuel price variation will be approved and announced by the Authority for immediate



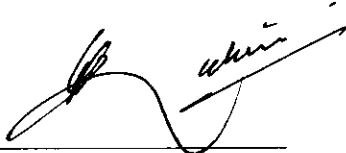
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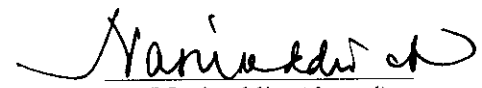
application within seven working days after receipt of KEL's request for adjustment in accordance with the requisite indexation mechanism stipulated herein.

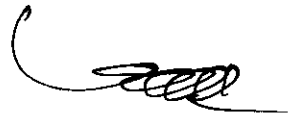
Terms and Conditions of Tariff:

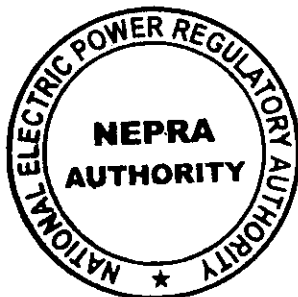
- i) All new equipment will be installed and the plant will be of standard configuration.
- ii) Capacity Charge Rs./kW/hour is applicable to available capacity at the delivery Point.
- iii) Dispatch criterion will be based on the Energy Charge.
- iv) Partial loading adjustment shall be applicable for the purpose of payment according to manufacturer's heat rate curves in case the plant load falls below 40%.
- v) 45% net efficiency at site over the 25 years life cycle of plant.
- vi) No compensation for start-up/shutdown charges will be allowed.
- vii) The above tariff is applicable for a period of 25 years commencing from the date of the Commercial Operation.

The above terms and conditions be incorporated as the specified tariff approved by the Authority pursuant to Rule 6 of the Licencing (Generation) Rules, in a Power Purchase Agreement between KEL and CPPA.

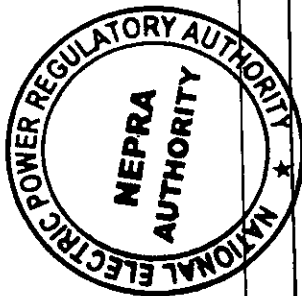

(Abdul Rahim Khan)
Member


(Nasiruddin Ahmed)
Member


Lt. General (R) Saeed uz Zafar
Chairman







REFERENCE GENERATION TARIFF TABLE

Agreement Year	ENERGY PURCHASE PRICE Rupees / kWh			CAPACITY PURCHASE PRICE Rupees / kW / hr										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					
							Local	Foreign	Local	Foreign	Principal	Interest				
1	4.3626	0.4059	4.7685	0.1483	0.0464	0.0686	0.0467	0.1927	0.0038	0.0156	0.6190	0.6365	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	1.7690	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	6.8848	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

LEVELIZED TARIFF

NPV	39.5995	3.6844	43.2839	1.3463	0.4215	0.6509	0.4243	1.7488	0.0343	0.1416	3.8038	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	0.4857	2.0595	3.4325	11.3800	