



National Electric Power Regulatory Authority

Islamic Republic of Pakistan

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Registrar

No. NEPRA/TRF-89/LPTL-2007/7450-7452

August 17, 2011

Subject: Decision of the Authority in the Matter of Liberty Power Limited Tariff Adjustments at the Commercial Operation Date (COD) [Case # NEPRA/TRF-89/LPTL-2007] - Intimation of Decision of Tariff Adjustment pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act 1997 (XL of 1997)

Dear Sir,

Please find enclosed the subject Decision of the Authority along with Annexure-I & II (18 pages) in Case No. NEPRA/TRF-89/LPTL-2007.

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

3. Please note that Order of the Authority at para 19 of the Decision relating to the reference tariff, adjustments, indexation and terms & conditions along with Annex-I & II needs to be notified in the official Gazette.

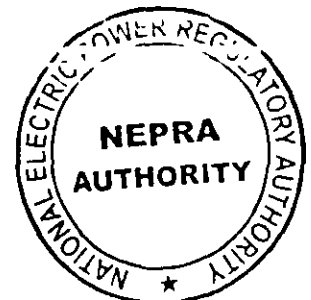
Enclosure: As above

(Syed Safer Hussain)

Secretary
Ministry of Water & Power
'A' Block, Public Secretariat
Islamabad

CC:

1. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
2. Secretary, Ministry of Finance, Islamabad.





DECISION OF THE AUTHORITY
IN THE MATTER OF LIBERTY POWER TECH LIMITED
TARIFF ADJUSTMENTS AT THE COMMERCIAL OPERATIONS DATE

1. Introduction

1.1 Liberty Power Tech Limited (hereinafter referred to as "LPTL") having successfully commenced its commercial operations with effect from January 13, 2011, filed a request vide letter dated March 26, 2011 for adjustment in its reference tariff in accordance with the Authority's determination dated February 28, 2008 (hereinafter referred to as "the determination") notified vide SRO 670 (I)/2008 dated June 15, 2008.

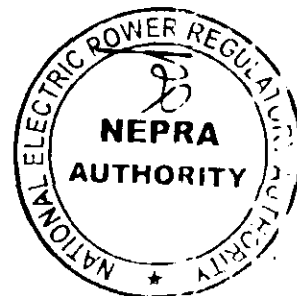
1.2 In support of its above mentioned request following documents were submitted by LPTL:

- Engineering and procurement contract
- Construction contract
- Agreements with banks (along with amendments)
- Capacity test certificate and certificate of commissioning from independent engineer i.e. KEMA International BV
- Audited/reviewed financial statements
- Copies of relevant general ledgers
- Copies of relevant bank statements and advices
- Copies of EPC invoices
- Copies of payment challans of duties, copies of pay orders through which these duties were paid and copies of bills of entries
- Equity/debt draw downs schedule reconciled with bank statements
- Copies of other relevant source documents

1.3 All the documents and figures submitted by LPTL have been checked by the Tariff Division of the Authority. After detailed deliberations, the Authority is pleased to make the following adjustments in the reference tariff of LPTL:

2. Engineering, Procurement and Construction Cost

2.1 The Authority in the determination originally assessed engineering, procurement and construction (hereinafter referred to as "EPC") cost of Rs. 12,422.10 million (US\$ 197.96



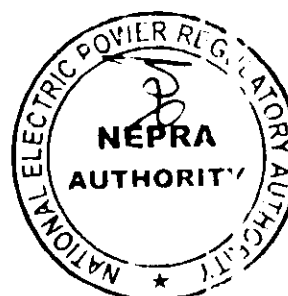


million with € 120.55 offshore cost and US \$ 22.19 million onshore cost) The reference exchange rate parities were Rs. / € = 91.50 and € / US\$ = 1.4582.

- 2.2 As per the determination, LPTL's EPC cost was subject to adjustment for actual variation in the exchange rate parity.
- 2.3 LPTL requested the Authority to allow its EPC cost of Rs. 15,541.81 million (US \$ 185.74 million) at the commercial operations date (hereinafter referred to as "COD") stage. LPTL in support of its claim submitted all the relevant documentary evidences such as EPC invoices, EPC contracts, bank statements, etc.
- 2.4 The Authority has observed that LPTL has claimed bank charges of Rs 7.79 million (US \$ 0.09 million) as a part of its EPC cost. The Authority has found that these bank charges were not subject to adjustment as a part of the EPC cost. The Authority has accordingly decided to disallow these bank charges as a part of the EPC cost, and has decided to consider these bank charges as a part of the financing charges.
- 2.5 The Authority has observed that for the purposes of adjustment of EPC cost actual weighted average Rs. / € parity works out to 113.49 and € / US\$ parity works out to 1.3560. Accordingly the EPC cost of LPTL works out to Rs. 15,534.02 million (US \$ 185.65 million). EPC cost has increased in Rupees term by about 25% and decreased in US \$ terms by about 6% due to exchange rate fluctuations. Based on the verifiable documentary evidence, the Authority after allowing exchange rates fluctuations, has assessed the EPC cost as Rs. 15,534.02 million (US \$ 185.65 million).

3. Custom Duties and Other Taxes

- 3.1 The Authority had assessed US \$ 8.79 million as customs duties and taxes in the determination, and had allowed adjustment of the same as per actual on provision of the documentary evidence at the COD.
- 3.2 LPTL initially claimed Rs. 635.97 million as customs duties and taxes at the COD stage. In support of its claim LPTL submitted copies of goods declarations of Pakistan Customs, payment challans of these duties, copies of pay orders of different banks through which these duties were paid, copies of bills of entries, EPC import invoices, etc.
- 3.3 During scrutiny of the information it was observed that LPTL had claimed Rs 54.03 million commission on letters of credit as a part of customs duties and taxes. In response to an inquiry, for justifying the inclusion of commission on letters of credit as a part of customs duties and taxes, LPTL on June 02, 2011 revised its claim of customs duties and taxes to Rs 581.94 million (US\$ 6.90 million), by excluding commission on





letters of credit of Rs. 54.03 million from customs duties and taxes, and claiming the same as financing charges.

- 3.4 The Authority also observed that LPTL has claimed Rs. 33.54 million sales tax as a part of customs duties and taxes. The Authority has considered the claim and has observed that:
- Sales tax being claimed is refundable in nature.
 - Sales tax has neither been claimed nor allowed by the Authority to any other IPP.

In view of the above the Authority has decided to disallow LPTL claim of sales tax amounting to Rs 33.54 million.

- 3.5 The Authority has further observed that Rs 0.20 million claimed as customs duties and taxes could not be substantiated in the absence of documentary evidence. After disallowing the sales tax of Rs. 33.54 million and Rs. 0.20 million unverified amount, duties and taxes work out to Rs. 548.20 million (US \$ 6.50 million) which are hereby allowed.

4. Interest During Construction

- 4.1 LPTL was allowed interest during construction (hereinafter referred to as "IDC") of US \$ 13.85 million in the determination which was subject to adjustment at the COD. LPTL has requested the Authority to allow it IDC of Rs. 2,226.67 million (US \$ 26.19 million) at the COD stage, for its construction period of about 21 months starting from March 18, 2009 to required commercial operations date (hereinafter referred to as "RCOD") of December 31, 2010. IDC for the period following RCOD has not been claimed by LPTL.
- 4.2 LPTL has submitted the copies of common term agreements with lenders, general ledgers, bank statements, bank advices, etc. to substantiate its claim of IDC.
- 4.3 The Authority has observed that in accordance with the definition of construction start date given in the power purchase agreement (hereinafter referred to as "PPA") of LPTL, the construction start date works out to March 20, 2009. In accordance with the treatment allowed to other IPPs, the Authority has decided to disallow LPTL's claim of IDC amounting to Rs. 2.22 million pertaining to the period prior to the construction start date of March 20, 2009.
- 4.4 The Authority furthermore observed that LPTL has earned mark-up income amounting to Rs. 38.80 million upto RCOD. For fair and consistent treatment, the Authority has decided to deduct this income from IDC.

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4.5 The Authority having considered all the evidences observed that IDC has increased due to the following main reasons:

- Increase in rupee value of EPC cost due to exchange rates fluctuations
- KIBOR was assumed to be 10.45% flat throughout the construction period in the determination. However, actual KIBOR during the construction period varied from 12.01% to 13.09%.
- Construction period allowed is about 21 months in accordance with the PPA as compared to 18 months assumed for calculating IDC in the determination.

4.6 In the light of discussion in the preceding paragraphs, the amount of IDC at the COD stage, works out to Rs. 2,185.65 million (US\$ 25.71 million) which is hereby allowed.

5. Financing Charges

5.1 The Authority had allowed US\$ 4.35 million as financing charges at the time of determination subject to adjustment on actual basis at COD up to maximum limit of 3% of the borrowing.

5.2 LPTL vide its letter No. LPTL/NEPRA-M/227/11 dated June 02, 2011 has claimed Rs. 429.01 million (US\$ 5.36 million) on account of financing charges. Further, as discussed earlier in paragraph 2.4, the Authority has decided to consider bank charges of Rs 7.79 million (US \$ 0.09 million) as financing charges. Accordingly the overall claimed financing charges work out to be Rs. 436.80 million (US\$ 5.45 million).

5.3 In support of its claim, LPTL provided banks statements, bank advices, details, computations, etc.

5.4 The financing charges of Rs. 436.80 million are within the maximum limit of 3% of the borrowing fixed in the determination. Based on the documentary evidence, the Authority has decided to allow Rs 436.80 million (US \$5.45 million) as financing charges.

6. Insurance during Construction

6.1 The Authority had allowed US \$ 2.67 million under the above mentioned head in the determination, subject to adjustment at COD on actual basis or 1.35% of the EPC cost whichever is lower.

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- 6.2 LPTL has claimed Rs. 187.65 million (US\$ 2.32 million) as insurance during construction and has submitted relevant details and supporting documents.
- 6.3 The Authority has observed that the actual insurance during construction claimed is lower than 1.35% of the EPC cost. Based on the documentary evidence the Authority has decided to allow actual insurance during construction of Rs. 187.65 million (US \$ 2.32 million).

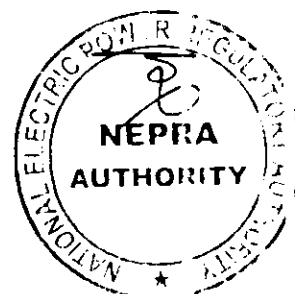
7. **Emergency and Safety Spare Parts**

- 7.1 The Authority in the determination had decided that LPTL claim for emergency and safety spare parts can be considered at the time of COD. Relevant paragraph 7.7.1 of the determination, reads as follows:

"LPTL in its petition included emergency spare parts equivalent to US\$ 2.314 million which are 1.5% of the offshore Wärtsilä EPC cost. LPTL was asked to provide evidence in support of its claim. LPTL submitted a copy of letter from Wärtsilä wherein it is clarified that "proposed Emergency/Safety Parts are not included in the EPC price. Due to longer lead time to procure these parts, it is recommended to maintain them at site to meet emergency breakdowns. These parts will be transferred to O&M contractor/operator at the time of handing over." The clarification referred only EPC but did not mention about the scope of O&M contractor. LPTL was therefore advised to obtain similar clarification from the O&M contractor and submit for consideration. In response LPTL submitted a letter from Wärtsilä Pakistan according to which these parts are out of O&M scope. LPTL however did not provide the copy of O&M contract without which it was not possible to validate LPTL's claim. In absence thereof such evidence, LPTL's request for allowing Emergency Spare Parts cannot be accepted at this point of time. In case LPTL provide the copy of its O&M contract when the same is finalized the adjustment in this regard can be considered at the time of COD."

- 7.2 In pursuance to this paragraph of the determination, LPTL has claimed emergency and safety spare parts of Rs. 208.44 million (US \$ 2.43 million) and has provided a copy of the Operations and Maintenance Agreement and Spare Parts Supply Agreement evidencing the fact that acquisition of emergency and safety spare parts was outside the scope of the work of operations, and maintenance contractor and was payable separately under the Spare Parts Supply Agreement.
- 7.3 All the relevant documents including invoices, evidences of customs clearance, letter of credit wise details, etc. were provided by LPTL. Further, these spare parts were also physically verified by NEPRA professionals at LPTL site. The Authority has observed that the emergency and safety spare parts now claimed are higher by US \$ 0.12 million from initial claim of LPTL i.e. US \$ 2.31 million. The Authority has also found that the amount

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of emergency and safety spare parts claimed is comparable with the emergency and safety spare parts allowed to other similar projects.

- 7.4 Based on the above quoted decision of the Authority to consider this cost at the time of COD, and verifiable documentary evidence, the Authority considers that by providing the requisite documents, LPTL has established to the satisfaction of the Authority that emergency and safety spare parts cost was outside the scope of work of Operations and Maintenance contract and was payable separately under Spare Parts Supply Agreement, therefore, the Authority has decided to approve emergency and safety spare parts cost of Rs. 208.44 million (US\$ 2.43 million) as requested.

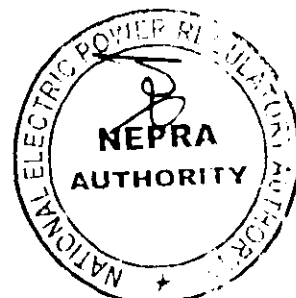
8. **Exchange Rate Variations in other Non-EPC Costs**

- 8.1 LPTL has converted non-EPC costs (not discussed separately in the preceding paragraphs) specified in the determination in US \$ terms, at the USD/PKR parity of 83.67 for working out its project cost in PKR. This exchange rate has also been applied to non-EPC costs incurred in PKR. LPTL has submitted that this exchange rate parity has been used, as there was major PKR depreciation against USD before the start of project, which had severe effect on the cost of local inputs and was also reflected in the WPI figures.
- 8.2 The Authority has observed that the determination of LPTL had used reference exchange rate of US\$/PKR of 62.75. In accordance with the treatment allowed to other IPPs, the Authority has restricted LPTL claim on this account and has allowed actual exchange rate variation for costs incurred in foreign currency only. Accordingly, the originally determined aggregate amount of US \$ 12.19 million under this head works out to Rs. 770.64 million which is hereby allowed.

9. **Summary of Adjustments in Project Cost**

- 9.1 The Authority had originally determined project cost of US \$ 239.81 million. LPTL claimed project cost of Rs. 20,191.03 million (US \$ 241.07 million) at the COD stage. Based on decisions in the preceding paragraphs, the overall project cost allowed to LPTL, works out to Rs. 19,871.39 million (US \$ 240.24 million).
- 9.2 LPTL has claimed debt equity ratio of 75 : 25 as originally determined, which is hereby allowed.

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10. Net Capacity

10.1 The reference tariff in the determination was calculated on the basis of net capacity of 195.000 MW. Consequent to the Initial Dependable Capacity (hereinafter referred to as "IDC") test, the net capacity has been assessed as 196.139 MW. According to the determination, all the tariff components, except fuel tariff component were required to be adjusted at the time of COD based upon IDC. All the tariff components, which were subject to adjustment on the basis of actual net capacity established, have been accordingly revised.

11. Fuel Cost

11.1 The Authority vide its decision dated January 27, 2011 has already revised fuel tariff component of LPTL for the month of January 2011 to Rs. 9.4344 kWh. This revised fuel cost tariff component has accordingly been considered in this decision.

12. O & M Costs

12.1 The Authority has already allowed indexation of O & M tariff components to LPTL, vide its decision dated March 03, 2011. The revised O & M tariff components applicable to the units delivered, post COD, during the quarter January 2011 to March 2011, were as follows:

<u>Tariff Components</u>	<u>Reference</u>	<u>Revised</u> Jan. – Mar 2011
	Rs./kWh.	Rs./kWh.
Fixed O & M – Foreign	0.0864	0.1232
Fixed O & M – Local	0.0563	0.0867
Variable O & M – Foreign	0.3791	0.5406
Variable O & M – Local	0.1346	0.2072
<u>Indexation Values</u>	Values	Values
WPI (Manufacturers)	125.670	193.440
US CPI	210.036	218.803
Exchange rate	62.750	85.90

12.2 Variable O & M tariff components were also adjusted, in the aforesaid decision, on the basis of IDC established at the time of COD i.e. 196.139 MW. However fixed O & M tariff components were not adjusted on the basis of revised IDC of 196.139 MW.



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- 12.3 After adjusting the fixed O & M tariff components on the basis of IDC established at the time of COD, the O & M tariff components work out as detailed below, which are hereby allowed:

<u>Tariff Components</u>	<u>Revised tariff components at COD</u>
	Jan. – Mar. 2011
	Rs./kWh.
Fixed O & M – Foreign	0.1225
Fixed O & M – Local	0.0862
Variable O & M – Foreign	0.5406
Variable O & M – Local	0.2072

13. Cost of Working Capital

- 13.1 The Authority had allowed cost of working capital of Rs. 0.0900/kWh in the determination. Cost of working capital was required to be adjusted at the COD stage, on the basis of actual prices of furnace oil prevalent at the time of first fill at COD and revised net capacity established at the time of COD. Further, this tariff component was also required to be indexed with 3 months KIBOR + 2% margin.

- 13.2 The Authority has observed from the submitted documents that LPTL has managed to secure working capital finance at a weighted average margin of 1.76% over 3 months KIBOR as against margin of 2% over 3 months KIBOR allowed in the determination. The Authority appreciates the efforts of LPTL for reducing the margin by 0.24%. The Authority has observed that 'Guidelines For Determination Of Tariffs For IPPs' have in comparable circumstances stipulated that reduction in debt servicing be shared in the following ratio:

Power Purchaser : IPP = 60 : 40

The Authority has decided to allow the benefit of better negotiation of the terms of working capital finances in the case of LPTL in the same ratio. Accordingly after allowing LPTL its share of reduction in the spread, the adjusted margin for LPTL over 3 Months KIBOR works out to 1.86%.

- 13.3 Actual parameters for revising the cost of working capital at the COD stage are as follows:



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- Fuel price Rs. 51,431 per Metric Ton
- Net capacity 196.139 MW
- KIBOR 13.46% + 1.86% Margin

13.4 Based on the revised parameters revised cost of working capital component works out to Rs. 0.2243 per kWh which is hereby allowed.

14. Insurance subsequent to COD

14.1 The Authority had allowed Rs. 0.0982 per kWh as insurance tariff component to LPTL in the determination. This insurance component was subject to adjustment on the basis of actual premium subject to maximum of 1.35% of the EPC cost.

14.2 LPTL has now claimed Rs. 137.83 million as insurance cost and in support of this claim, has provided insurance premium invoices of EFU General Insurance Limited, copies of bank statements, vouchers, etc.

14.3 The Authority has observed that actual insurance premium of Rs 137.88 million claimed by LPTL is within the maximum cap of 1.35% of the EPC cost and is verifiable. Accordingly the Authority here by allows actual insurance premium of Rs 137.88 million and insurance component of Rs. 0.0802 per kWh.

15. Return on Equity

15.1 The Authority had allowed Rs. 0.3303 per kWh as return on equity (hereinafter referred to as "ROE") tariff component to LPTL in the determination. The ROE was subject to adjustment on the basis of revised amount of equity allowed by the Authority, variation in exchange rate parity between US \$/PKR and revised net capacity established at the time of COD. On the basis of revised equity of Rs. 4,967.85 million, exchange rate of US\$/PKR of 85.90 and net capacity of 196.139 MW the ROE component of tariff works out to Rs. 0.4504 per kWh which is hereby allowed.

16. Return on Equity During Construction

16.1 The Authority had assessed return on equity during construction (hereinafter referred to as "ROEDC") of Rs. 0.0332 per kWh in the determination. Based on actual equity injections, variation in exchange rate parity between US \$/PKR and construction period commencing from March 12, 2009 and ending on December 31, 2010, LPTL has claimed Rs 0.0730 per kWh as ROEDC at COD.

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16.2 As discussed in paragraph 4.3, the construction start date of LPTL, in accordance with the terms of its PPA, works out to March 20, 2009. In consistency with the construction start date allowed to LPTL for computation of its interest during construction, and the treatment allowed in similar circumstances to other IPPs, the Authority has decided to disallow claim of LPTL for ROEDC pertaining to the period prior to the construction start date of March 20, 2009.

16.3 Based on the construction period commencing from March 20, 2009 and ending on December 31, 2010 and keeping in view the relevant dates of equity injections, exchange rate of US\$/PKR of 85.90, ROEDC in the instant case works out to be Rs. 0.0717 per kWh which is hereby allowed.

17. Withholding Tax

17.1 Based on the revised ROE and ROEDC, the tariff component of withholding tax has also been revised from Rs. 0.0273 per kWh in the determination to Rs. 0.0392 per kWh.

18. Debt Servicing Component

18.1 The Authority had assessed debt servicing component of Rs. 1.2113 per kWh in the determination. LPTL has requested for adjustment of this tariff component on the basis of documentary evidence. Salient terms of the common term agreements signed with the consortium of banks are as follows:

- Interest rate of 3 months KIBOR plus 3% per annum;
- Term of loan 10 years, to be repayable in 40 equal quarterly installments.

18.2 Based on the revised project cost of Rs. 19,871.39 million, debt @ 75% of the project cost works out to be Rs. 14,903.54 million. Accordingly revised debt serving component on the basis of 3 months KIBOR of 13.46% + 3% margin and revised capacity of 196.139 MW works out to Rs. 1.7831 per kWh.

19. ORDER

Liberty Power Tech Limited (LPTL) is allowed to charge, on the basis of revised net dependable capacity established on the basis of test jointly carried out by the Central Power Purchasing Agency (CPPA) of the National Transmission and Despatch Company Limited (NTDC) and LPTL at the Commercial Operations Date (COD), the following tariff for delivery of electricity:

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REFERENCE TARIFF

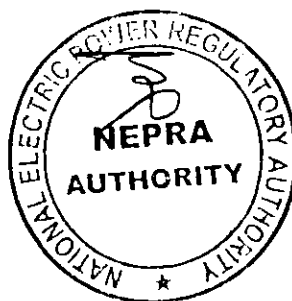
Tariff Components	Year 1 to 10	Year 11 to 25	Indexation
Capacity Charge (Rs./kW/Hour)			
Fixed O&M- Local	0.0862	0.0862	WPI
Fixed O&M - Foreign	0.1225	0.1225	US\$, PKR & US CPI
Insurance	0.0802	0.0802	US\$/PKR
Cost of working capital	0.2243	0.2243	KIBOR
Debt service – local	1.7831	-	KIBOR
Return on equity	0.4504	0.4504	US\$/PKR
Return on equity during construction	0.0717	0.0717	US\$/PKR
Total Capacity Charge	2.8184	1.0353	
Energy Charge on Operation on Furnace Oil Rs./kWh			
Fuel cost component	9.4344	9.4344	Fuel price
Variable O&M – Local	0.2072	0.2072	WPI
Variable O&M – Foreign	0.5406	0.5406	US\$/PKR & US CPI

Note:

- i) Capacity charge Rs./kWh. is applicable to the dependable capacity at the delivery point.
- ii) Dispatch criterion will be based on the energy charge.
- iii) The above tariff is applicable for a period of 25 years commencing from the date of the commercial operations.
- iv) Component wise tariff for operation on furnace oil is indicated at **Annex-I** and Debt Service Schedule at **Annex-II**.

i) Adjustment in Insurance Component

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



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Insurance Component (Revised) = Rs.0.0802 per kW per hour/ (1.35% x EPC cost x AP

Where:

AP = Actual Premium subject to maximum of 1.35% of the EPC.

II) Pass-Through Items

No provision for income tax has been accounted for in the tariff. If LPTL is obligated to pay any tax on its income, the exact amount paid by the company shall be reimbursed by the power purchaser to LPTL on production of original receipts. This payment will be considered as a pass-through (as Rs./kW/hour) hourly payment spread over a 12 months period in addition to the capacity purchase price given in the tariff. Furthermore, in such a scenario, LPTL shall also submit to the power purchaser details of any tax shield savings and the power purchaser shall deduct the amount of these savings from its payment to LPTL on account of taxation.

Withholding tax on dividend is also a pass-through item as indicated in the government guidelines for the determination of tariff for new IPPs. In the tariff table withholding tax number is indicated as a reference and the power purchaser shall make payment on account of withholding tax at the time of actual payment of dividend subject to maximum of 7.5% of 15% of reference equity i.e. hourly payment (Rs./kW/hour) spread over a 12 months period.

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 in hourly payments spread over 12 months period as a pass-through from the power purchaser in future on the basis of the total dividend payout.

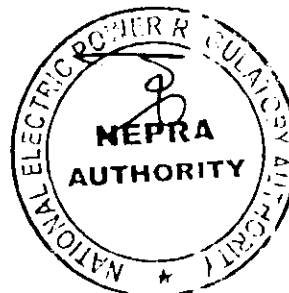
III) Indexations

The following indexations shall be applicable to reference tariff.

a) Indexations applicable to O&M

In future O&M tariff components will be adjusted on account of local inflation (WPI) and variation in US CPI and dollar/rupee exchange rate parity according to the mechanism detailed here in. 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

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latest available information with respect to WPI notified by the Federal Bureau of Statistics, US CPI notified by the 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:

i) **Fixed O&M**

$$F O\&M_{(LREV)} = \text{Rs. } 0.0862 \text{ per kW per hour} * WPI_{(REV)} / 193.440$$

$$F O\&M_{(FREV)} = \text{Rs. } 0.1225 \text{ per kW per hour} * US CPI_{(REV)} / 218.803 * ER_{(REV)} / 85.90$$

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)

$WPI_{(REF)}$ = 193.440 wholesale price index (manufacturers) notified by the Federal Bureau of Statistics

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

$US CPI_{(REF)}$ = 218.803 US CPI (all urban consumers) 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

$ER_{(Ref)}$ = The reference exchange rate of Rs. 85.90 = 1 US\$.

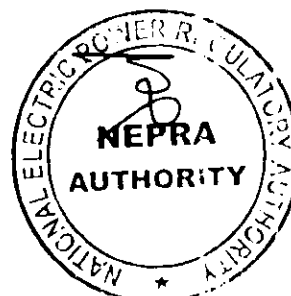
ii) **Variable O&M**

$$V O\&M_{(LREV)} = \text{Rs. } 0.2072 \text{ per kW per hour} * WPI_{(REV)} / 193.440$$

$$V O\&M_{(FREV)} = \text{Rs. } 0.5406 \text{ per kW per hour} * US CPI_{(REV)} / 218.803 * ER_{(REV)} / 85.90$$

Where;

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$V O\&M_{(LREV)}$	=	The revised applicable variable O&M local component of the energy charge indexed with WPI
$V O\&M_{(FREV)}$	=	The revised applicable variable O&M foreign component of the energy charge indexed with US CPI and exchange rate variation
$WPI_{(REV)}$	=	The revised wholesale price index (manufacturers)
$WPI_{(REF)}$	=	193.440 wholesale price index (manufacturers) notified by the Federal Bureau of Statistics
$US\ CPI_{(REV)}$	=	The revised US CPI (all urban consumers)
$US\ CPI_{(REF)}$	=	218.803 US CPI (all urban consumers) 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
$ER(Ref)$	=	The reference exchange rate of Rs. 85.90 = 1 US\$.

b) Adjustment for KIBOR variation

The interest part of debt service 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 months KIBOR according to the following formula:

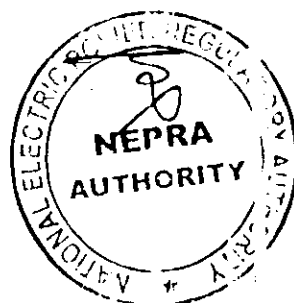
$$\Delta I_{(L)} = P_{(LREV)} * (KIBOR_{(REV)} - 13.46\%) / 4$$

Where;

$\Delta I_{(L)}$ = The variation in interest charges applicable corresponding to variation in KIBOR. $\Delta I_{(L)}$ can be positive or negative depending upon whether $KIBOR_{(REV)}$ is > or < 13.46%. The interest payment obligation will be enhanced or reduced to the extent of $\Delta I_{(L)}$ for each quarter under adjustment on quarterly basis.

$P_{(LREV)}$ = The outstanding principal (as indicated in the attached debt service schedule to this order) on a quarterly basis on the relevant quarterly calculations date.

(38)



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c) **Fuel Price Variation**

The energy charge part of the tariff relating to fuel cost will be adjusted on account of the fuel price variations. In this regard, the variation in LPTL's allowed rate relating to fuel cost shall be revised according to the following formula:

$$FC_{(Rev)} = (\text{Rs. } 9.4344 \text{ per kWh} * FP_{(Rev)}) / \text{Rs. } 47,962.12 \text{ per ton}$$

Where;

$$FC_{(Rev)} = \text{Revised fuel cost component of variable charge on furnace oil}$$

$$FP_{(Rev)} = \text{Revised fuel price}$$

d) **Adjustment of Return on Equity (ROE)**

ROE component of the tariff will be adjusted on account of exchange rate variation according to the following formula;

$$ROE_{(Rev)} = \text{Rs. } 0.4504 \text{ per kW per hour} * ER_{(Rev)} / ER_{(Ref)}$$

Where;

$$ROE_{(Rev)} = \text{The revised ROE component of the capacity purchase price}$$

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

$$ER_{(Ref)} = \text{The reference exchange rate of Rs. } 85.90 = 1 \text{ US\$}$$

e) **Adjustment of Return on Equity during Construction (ROEDC)**

ROEDC component of tariff will be adjusted on account of exchange rate variation according to the following formula;

$$ROEDC_{(Rev)} = \text{Rs. } 0.0717 \text{ per kW per hour} * ER_{(Rev)} / ER_{(Ref)}$$

Where;

$$ROEDC_{(Rev)} = \text{The revised ROEDC component of the capacity purchase price}$$

3



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X



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


$ER_{(Ref)}$ = The reference exchange rate of Rs. 85.90= 1 US\$.

Adjustments on account of variation in WPI, US CPI, exchange rate, KIBOF and fuel price will be approved and announced by the Authority for immediate application in accordance with the requisite indexation mechanism stipulated herein.

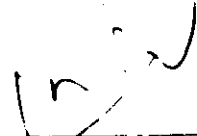
IV) Terms and Conditions of Tariff

- i) Use of furnace oil will be considered as primary fuel.
- ii) General assumptions of LPTL, which are not covered in this decision and earlier determination, may be dealt with as per standard terms of the PPA.


AUTHORITY



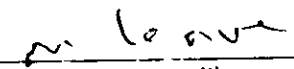
(Zafar Ali Khan)
Member
8/5/11



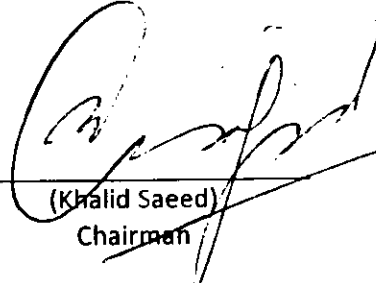
(Maqbool Ahmad Khawaja)
Member



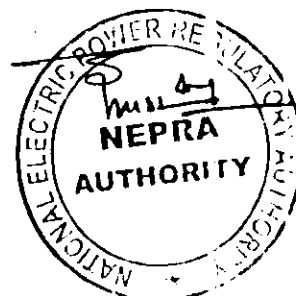
(Ghiasuddin Ahmed)
Member
11/8



(Shaukat Ali Kundi)
Vice Chairman/Member



(Khalid Saeed)
Chairman



Liberty Power Tech Limited
Revised Tariff Table At Commercial Operations Date

Year	Variable Charge (Rs./kWh)				Capacity Charge (Rs./kW/Hour)									
	Fuel	Variable O&M		Total	Fixed O&M		Cost of Working Capital	Insurance	ROE	ROEDC	Withholding Tax	Loan Repayment	Interest Charges	Total
		Local	Foreign		Local	Foreign								
1	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	0.3779	1.4052	2.8576
2	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	0.4440	1.3391	2.8576
3	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	0.5217	1.2613	2.8576
4	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	0.6131	1.1700	2.8576
5	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	0.7204	1.0627	2.8576
6	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	0.8465	0.9366	2.8576
7	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	0.9946	0.7884	2.8576
8	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	1.1688	0.6143	2.8576
9	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	1.3733	0.4097	2.8576
10	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	1.6137	0.1694	2.8576
11	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	-	-	1.0745
12	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	-	-	1.0745
13	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	-	-	1.0745
14	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	-	-	1.0745
15	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	-	-	1.0745
16	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	-	-	1.0745
17	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	-	-	1.0745
18	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	-	-	1.0745
19	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	-	-	1.0745
20	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	-	-	1.0745
21	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	-	-	1.0745
22	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	-	-	1.0745
23	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	-	-	1.0745
24	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	-	-	1.0745
25	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	-	-	1.0745
Levelized Tariff (1-25 Years)	9.4344	0.2072	0.5406	10.1822	0.0862	0.1225	0.2243	0.0802	0.4504	0.0717	0.0392	0.5185	0.6885	2.2815

Revised net dependable capacity

196.139 MW

Exchange Rate (PKR/US\$)

85.90

Fuel price inclusive of freight and adjusted for HHV-LHV factor of 1.05

50,360.23 Rs/Mton

US CPI

218.803

WPI (Manufacturer)

193.44

Reference Tariff @ 60% plant factor

13.9847 Rs/kWh or US Cents 16.2802 /kWh



LIBERTY POWER TECH LIMITED
Debt Servicing Schedule

									Annual Debt Servicing (Lakhs)
1	1	14,903.54	152.63	613.28	14,750.91	765.91	0.3779	14052	1.7831
	2	14,750.91	158.91	607.00	14,592.00	765.91			
	3	14,592.00	165.45	600.46	14,426.54	765.91			
	4	14,426.54	172.26	593.65	14,254.28	765.91			
2	1	14,254.28	179.35	586.56	14,074.93	765.91	0.4440	13391	1.7831
	2	14,074.93	186.73	579.18	13,888.20	765.91			
	3	13,888.20	194.41	571.50	13,693.79	765.91			
	4	13,693.79	202.41	563.50	13,491.37	765.91			
3	1	13,491.37	210.74	555.17	13,280.63	765.91	0.5217	12613	1.7831
	2	13,280.63	219.42	546.50	13,061.21	765.91			
	3	13,061.21	228.44	537.47	12,832.77	765.91			
	4	12,832.77	237.84	528.07	12,594.93	765.91			
4	1	12,594.93	247.63	518.28	12,347.29	765.91	0.6131	11700	1.7831
	2	12,347.29	257.82	508.09	12,089.47	765.91			
	3	12,089.47	268.43	497.48	11,821.04	765.91			
	4	11,821.04	279.48	486.44	11,541.56	765.91			
5	1	11,541.56	290.98	474.94	11,250.58	765.91	0.7204	10627	1.7831
	2	11,250.58	302.95	462.96	10,947.63	765.91			
	3	10,947.63	315.42	450.50	10,632.21	765.91			
	4	10,632.21	328.40	437.52	10,303.82	765.91			
6	1	10,303.82	341.91	424.00	9,961.90	765.91	0.8465	99366	1.7831
	2	9,961.90	355.98	409.93	9,605.92	765.91			
	3	9,605.92	370.63	395.28	9,235.29	765.91			
	4	9,235.29	385.88	380.03	8,849.41	765.91			
7	1	8,849.41	401.76	364.15	8,447.65	765.91	0.9916	0.7884	1.7831
	2	8,447.65	418.29	347.62	8,029.36	765.91			
	3	8,029.36	435.51	330.41	7,593.85	765.91			
	4	7,593.85	453.43	312.49	7,140.43	765.91			
8	1	7,140.43	472.08	293.83	6,668.34	765.91	1.1688	0.6143	1.7831
	2	6,668.34	491.51	274.40	6,176.83	765.91			
	3	6,176.83	511.74	254.18	5,665.09	765.91			
	4	5,665.09	532.79	233.12	5,132.30	765.91			
9	1	5,132.30	554.72	211.19	4,577.58	765.91	1.3713	0.4097	1.7831
	2	4,577.58	577.55	188.37	4,000.03	765.91			
	3	4,000.03	601.31	164.60	3,398.72	765.91			
	4	3,398.72	626.06	139.86	2,772.67	765.91			
10	1	2,772.67	651.82	114.10	2,120.85	765.91	1.6117	0.1694	1.7831
	2	2,120.85	678.64	87.27	1,442.21	765.91			
	3	1,442.21	706.57	59.35	735.64	765.91			
	4	735.64	735.64	30.27	(0.00)	765.91			

