



# National Electric Power Regulatory Authority

## Islamic Republic of Pakistan

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**Registrar**

No. NEPRA/R/TRF-84/BPL-2007/7414-16  
May 7, 2008

**Subject: Decision of the Authority in the Matter of Motion for Leave for Review filed by Bestway Power Ltd. (BPL) under Rule 16(6) of NEPRA (Tariff Standards and Procedure) Rules, 1998 (Case No. NEPRA/TRF-84/BPL-2007) - Intimation of Determination of Tariff pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997)**

Dear Sir,

In continuation of this office letter No. NEPRA/R/TRF-84/BPL-2007/6432-34 dated February 28, 2008 whereby determination of the Authority on Bestway Power Ltd. was sent. Please find enclosed herewith the decision of the Authority along with Annexes-I & II (23 pages) in the matter of Motion for Leave for Review filed by Bestway Power Ltd. on March 10, 2008 against Case No. NEPRA/TRF-84/BPL-2007.

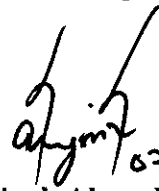
2. Subsequent to the culmination of proceedings in the subject Motion for Leave for Review and the issuance/announcement of decision of the Authority along with Annexes-I & II (23 pages) is being intimated to the Federal Government for the purpose of notification of the specified tariff, in the official Gazette pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997) read with Rule 16(11) of the National Electric Power Regulatory Authority Tariff (Standards and Procedure) Rules, 1998.
3. Please be informed that the Reference Tariff earlier intimated vide para 17.2 of the Authority's determination dated February 28, 2008, stands revised to the extent as detailed in para 49 of the decision of the Authority on the subject motion along with Annexes-I & II needs to be notified in the official Gazette. The Final Order is reproduced for the purpose of clarity and is attached herewith.

Enclosure: As above

Secretary  
Cabinet Division,  
Government of Pakistan  
Cabinet Secretariat  
Islamabad

CC:

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

  
07.05.08  
(Mahjoob Ahmad Mirza)





**FINAL ORDER OF THE AUTHORITY**  
**IN CASE NO. NEPRA/TRF-84/BPL-2007**  
**TO BE NOTIFIED IN THE OFFICIAL GAZETTE**

Pursuant to Rule 6 of the NEPRA Licensing (Generation) Rules 2000, Bestway Power Limited (BPL) is allowed to charge, subject to adjustment of Capacity Purchase Price on account of net dependable capacity as determined by a test jointly carried out by Central Power Purchasing Agency (CPPA) and the petitioner, the following is approved as specified tariff for BPL for delivery of electricity to CPPA of NTDC for procurement on behalf of Ex-WAPDA Distribution Companies:

**Specified Reference Tariff**

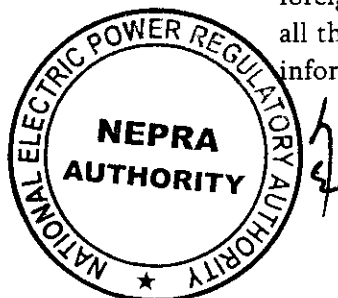
Tariff Components	Year 1 to 10	Year 11 to 25	Indexation
<b>Capacity Charge PKR/kW/Hour)</b>			
O&M Local	0.0508	0.0508	WPI
O&M Foreign	0.0885	0.0885	US\$ /PKR & US CPI
Cost of Working Capital	0.0850	0.0850	KIBOR
Insurance	0.0978	0.0978	US\$ /PKR
Debt Service	1.1476		KIBOR
Return on Equity	0.3217	0.3217	US\$ /PKR
ROE during Construction	0.0324	0.0324	US\$ /PKR
<b>Total Capacity Charge</b>	<b>1.8237</b>	<b>0.6762</b>	
<b>Energy Charge on Operation on Furnace Oil Rs./kWh</b>			
Fuel Cost Component	4.7811	4.7811	Fuel Price
Variable O&M			
Foreign	0.3666	0.3666	US\$ /PKR & US CPI
Local	0.0980	0.0980	WPI

Note: i) Component wise tariff for operation on RFO is indicated at Annex-I. Debt Servicing Schedule is attached as Annex-II.

The following adjustments /indexations shall be applicable to reference tariff;

**I. Adjustment in EPC Cost (One Time)**

The Authority has assessed offshore EPC cost as € 133.40 million and onshore as US\$ 21.53 million (onshore to be incurred in Pak Rupees). Since the exact timing of payment to EPC contractor is not known at this point of time therefore an adjustment for relevant foreign currency fluctuation for the portion of payment in the relevant foreign currency will be made. In this regard the sponsor will be required to provide all the necessary relevant details along with documentary evidence. Based upon such information the EPC cost components in Euro or Dollar shall be established and shall





be applied to the corresponding EPC cost components. The adjustment shall be only for currency fluctuation against the reference parity values according to the following mechanism;

$$EPC \text{ (Offshore)}_{(Adj.)} = \text{PKR } 12,206.1 \text{ Million} / 91.5 * E_{(PR)}$$

$$EPC \text{ (Onshore)}_{(Adj.)} = \text{PKR } 13,51.21 \text{ Million} / 62.75 * E_{(PR)}$$

Where:

$E_{(PR)}$  = Respective Weighted Average PKR/EURO and PKR/US\$ parity based upon timing of the payment

The tariff components i.e. Insurance, ROE, ROEDC, Principal Repayment and Interest Charges shall be adjusted according to the following formula at COD.

i) **Insurance Adjustment Mechanism for EPC Cost Variation**

$$Ins_{(Rev)} = Ins_{(Ref)} / EPC_{(Ref)} * EPC_{(Adj.)}$$

Where:

$Ins_{(Rev)}$  = Revised insurance component of tariff

$Ins_{(Ref)}$  = Reference insurance component of tariff

$EPC_{(Ref.)}$  = Reference EPC in PKR.

$EPC_{(Adj.)}$  = Adjusted EPC in PKR

ii) **Return on Equity Adjustment Mechanism for EPC Cost Variation**

$$ROE_{(Rev)} = ROE_{(Ref)} / E_{(Ref)} * E_{(Rev)}$$

Where:

$ROE_{(Rev)}$  = Revised reference Return on Equity component of tariff in PKR

$ROE_{(Ref)}$  = Reference Return on Equity component of tariff as per original schedule of tariff in PKR

$E_{(Ref)}$  = Reference Equity in PKR (Rs. 4,013.534 million)

$E_{(Rev)}$  = Revised amount of Equity in PKR

iii) **ROEDC Adjustment Mechanism for EPC Cost Variation**

$$ROEDC_{(Rev)} = ROEDC_{(Ref)} / EDC_{(Ref)} * EDC_{(Rev)}$$

Where:





ROEDC <sub>(Rev)</sub>	=	Revised Return on Equity during Construction component of tariff in PKR
ROEDC <sub>(Ref)</sub>	=	Reference Return on Equity During Construction components of tariff in PKR
EDC <sub>(Ref)</sub>	=	Reference Equity During Construction in PKR
EDC <sub>(Rev)</sub>	=	Revised Equity During Construction in PKR

iv) **Debt Servicing Adjustment Mechanism for EPC Cost Variation**

$$DS_{(Rev)} = DS_{(Ref)} / Debt_{(Ref)} * Debt_{(Rev)}$$

Note: The adjustment factor established as per the above formula shall be applicable to the individual components of principal and interest during the entire repayment period.

DS <sub>(Rev)</sub>	=	Revised Debt Servicing component of tariff
DS <sub>(Ref)</sub>	=	Reference Debt Servicing component of tariff
Debt <sub>(Ref)</sub>	=	Reference amount of Debt in PKR (Rs. 12,040.6)
Debt <sub>(Rev.)</sub>	=	Revised amount of Debt in PKR

II. **Adjustment due to Variation in Net Capacity**

The reference tariff has been determined on the basis of minimum net capacity of 213.60 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 Initial Dependable Capacity (IDC) tests to be carried out for determination of contracted capacity. Adjustment shall not be made if IDC is established less than 213.60 MW net capacity at reference site conditions. The adjustments shall be made according to the following formula:

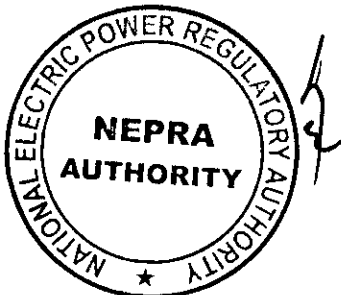
$$CC_{(Adj.)} = CC_{(Ref)} \times 213.60 MW / NC_{(IDC)}$$

Note: Above formula shall be applicable to all the individual relevant components of Capacity Charges.

Where;

CC <sub>(Adj)</sub>	=	Adjusted relevant Capacity Charge components of tariff
CC <sub>(Ref)</sub>	=	Reference relevant Capacity Charge components of tariff
NC <sub>(IDC)</sub>	=	Net Capacity at reference site conditions established at the time of IDC test

Note:- Reference capacity charge components of Tariff i.e. Revised O&M Foreign, Revised O&M Local, Insurance, Debt Servicing, Return on Equity and ROEDC to be adjusted as per IDC test.





Reference Conditions:

Ambient Temperature	Min 3 °C Max 50 °C
Altitude (maximum)	500 m
Air Inlet Temperature	30 °C
Air Inlet Pressure	989 mbar
Charge air temperature before cylinder	47 °C
Exhaust gas back pressure	≤ 30 mbar
Intake air pressure loss	≤ 20 mbar

**III. Adjustment in Insurance as per actual**

The actual insurance cost for the minimum cover required under contractual obligations with the Power Purchaser not exceeding 1.35% of the EPC cost will be treated as pass-through. Insurance component of reference tariff shall be adjusted as per actual on yearly basis upon production of authentic documentary evidence by BPL according to the following formula;

$$\text{Insurance (Rev)} = \text{AIC} / (1.35 \% \times \text{US\$ } 2.916 \text{ Million}) * \text{AP}$$

Where;

AIC = Adjusted Insurance Component (Rs. kW/hr) as per IDC Test

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

**IV. Adjustment Based on Actual Interest During Construction**

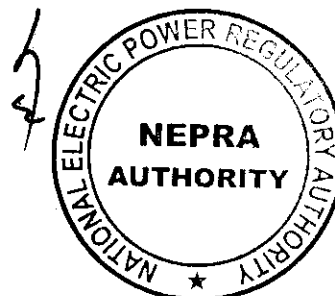
Debt Service, Return on Equity and ROE during construction shall be adjusted on account of actual variation in drawdown and Interest During Construction with reference to the estimated figures.

**V. Adjustment due to Custom Duties & Taxes**

Debt Service, Return on Equity and ROE during construction shall be adjusted on account of actual variation in custom duties & Taxes with reference to the estimated figures of US\$ 9.725 million. The impact of withholding tax on local services is not known at this point of time. However, these will be adjusted along with other duties and taxes as per the actual on provision of documentary evidence at COD.

**VI. Adjustment for variation in Rupee/Dollar parity**

Relevant reference tariff components shall be adjusted at COD on account of variation in PKR/US\$ parity.





**VII. Adjustment in Return on Equity (ROE)**

Return on Equity will be quarterly adjusted on account of variation in PKR/US\$ parity according to the following formula:

$$ROE_{(Rev)} = ROE_{(Ref)} * ER_{(Rev)} / 62.75$$

Where;

ROE (Rev)= Revised ROE

ROE (Ref)= Reference ROE

ER (Rev)= The revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan

**VIII. Adjustment in Return on Equity during Construction (ROEDC)**

Return on Equity during Construction will be quarterly adjusted on account of variation in PKR/US\$ parity according to the following formula:

$$ROEDC_{(Rev)} = ROEDC_{(Ref)} * ER_{(Rev)} / 62.75$$

Where;

ROEDC (Rev)= Revised ROEDC

ROEDC (Ref)= Reference ROEDC

ER (Rev)= The revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan

**IX. Adjustment of Withholding Tax**

Withholding tax will be adjusted on account of exchange rate variation according to the following formula:

$$WT_{(Rev)} = WT_{(Ref)} * ER_{(Rev)} / 62.75$$

Where;

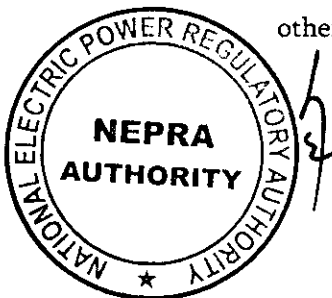
WT (Rev) = Withholding tax revised

WT (Ref) = Reference Withholding tax

ER(Rev) = The revised TT&OD selling rate of US dollar as notified by the National Bank of Pakistan

**X. Pass-Through Items**

- i) "No provision for income tax, workers' profit participation fund and workers' welfare fund, any other tax, excise duty or other duty, levy, charge, surcharge or other governmental impositions, payable on the generation, sales, exploration has





been accounted for in the tariff. If BPL is obligated to pay any tax on the income purely generated from its operation i.e. Electricity Generation of power producer, the exact amount should be reimbursed by CPPA on production of original receipts. This payment may be considered as pass-through (as Rs./kW/hour) hourly payment spread over a 12 months period in addition to the capacity purchase price in the Reference Tariff. Furthermore, in such a scenario, BPL may also submit to CPPA details of any tax shield savings and CPPA will deduct the amount of these savings from its payment to BPL on account of taxation.

- ii) Withholding tax on dividend is also a pass through item just like other taxes as indicated in the government guidelines for determination of tariff for new IPPs. In a reference tariff table withholding tax number is indicated as reference and CPPA (NTDC) shall make payment on account of withholding tax at the time of actual payment of dividend subject to maximum of 7.5% of 15% reference equity i.e. hourly payment (Rs./kW/hour) spread over a 12 month period according to the following formula:

$$\text{Withholding Tax Payable} = [(15\% * (E_{\text{Ref}} - E_{\text{Red}})) + \text{ROEDC}_{\text{Ref}}] * 7.5\%$$

Where:

$E_{\text{Ref}}$  = Adjusted Reference Equity at COD

$E_{\text{Red}}$  = Equity Redeemed

$\text{ROEDC}_{\text{Ref}}$  = Reference Return on Equity During Construction

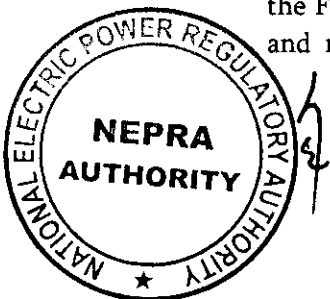
- iii) In case Company does not declare a dividend in a particular year or only declares a partial dividend, then the difference in the withholding tax amount (between what is paid in that year and the total entitlement as per the Net Return on Equity) would be carried forward and accumulated so that 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 pay out.

#### **XI. Indexations:**

The following indexation shall be applicable to the reference tariff as follows;

##### **a) Indexation applicable to O&M**

The Fixed O&M local component of Capacity Charge will be adjusted on account of Inflation (WPI) and Fixed O&M foreign component 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 1<sup>st</sup> July, 1<sup>st</sup> October, 1<sup>st</sup> January and 1<sup>st</sup> April based on the latest 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:

i) **Fixed O&M**

$$F O\&M_{(LREV)} = Rs. 0.0508/kW/Hour * WPI_{(REV)} / 125.67$$

$$F O\&M_{(FREV)} = Rs. 0.0885/kW/Hour * US CPI_{(REV)} / 210.036 * ER_{(REV)} / 62.75$$

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 (All Urban) and Exchange Rate variations

$WPI_{(REV)}$  = the revised wholesale Price Index (manufactures)

$WPI_{(REF)}$  = 125.67 wholesale price index (manufactures) of December 2007 notified by Federal Bureau of Statistics

$US CPI_{(REV)}$  = the revised US CPI (All Urban)

$US CPI_{(REF)}$  = 210.036 US CPI (All Urban) for the month of December 2007 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.

ii) **Variable O&M**

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

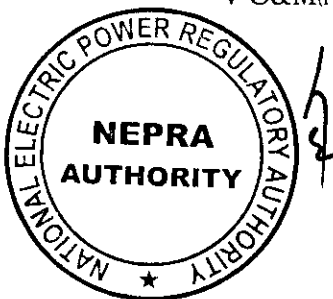
$$V O\&M_{(LREV)} = Rs. 0.0980 /kW/Hour * WPI_{(REV)} / 125.67$$

$$V O\&M_{(FREV)} = Rs. 0.3666/kW/Hr * US CPI_{(REV)} / 210.036 * ER_{(REV)} / 62.75$$

Where:

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

$V O\&M_{(FREV)}$  = the revised applicable Variable O&M Foreign Component of the Capacity Charge indexed with US CPI (All Urban) and Exchange Rate variations







$WPI_{(REV)}$	=	the revised wholesale Price Index (manufactures)
$WPI_{(REF)}$	=	125.67 wholesale price index (manufactures) of December 2007 notified by Federal Bureau of Statistics
$US\ CPI_{(REV)}$	=	the revised US CPI (All Urban)
$US\ CPI_{(REF)}$	=	210.036 US CPI (All Urban) for the month of December 2007 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 Variable O&M indicated above shall be replaced with the revised number at COD after incorporating the required adjustment based upon the IDC Test.

iii) Adjustment for KIBOR variation

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

$$\Delta I_{(L)} = P_{(LREV)} * (KIBOR_{(REV)} - 9.75\%) / 4$$

Where:

$\Delta I_{(L)}$  = the variation in interest charges on local loan applicable corresponding to variation in quarterly KIBOR.  $\Delta I$  can be positive or negative depending upon whether  $KIBOR_{(REV)} >$  or  $< 9.75\%$ . The interest payment obligation will be enhanced or reduced to the extent of  $\Delta I$  for each quarter under adjustment applicable on quarterly basis

$P_{(REV)}$  = is the outstanding principal (as indicated in the attached debt service schedule to this order) on a quarterly basis on the relevant quarterly calculations date. Period 1 shall commence on the date on which the 1<sup>st</sup> installment is due after availing the grace period.

iv) 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 mechanism given below:

$$FC_{(Rev)} = (Rs.4.3223 \text{ per kWh} * FP_{(Rev)}) / Rs.23,247.07 \text{ per ton} / 40,792 * CV_{(Rev)} + (Rs.0.4588 \text{ per kWh} * Ft_{(Rev)}) / Rs. 2,467.50 \text{ per ton}$$

Where:





- FC<sub>(Rev)</sub> = Revised fuel cost component of Variable Charge on RFO.  
CV<sub>(Rev)</sub> = Revised Calorific Value  
Ft<sub>(Rev)</sub> = Revised Freight Charges adjusted for NHV-GHV factor  
FP<sub>(Rev)</sub> = The new price of RFO per Metric Ton adjusted for NHV/GHV factor of 1.05 as per the following mechanism;

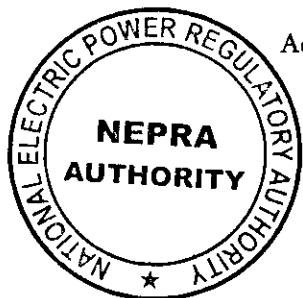
Description	US\$/Ton	Rs./Ton
HSFO Arab Gulf Average Price for applicable Fortnight (From Platts Oilgram Report) *		
Black Premium (From OGRA)		
C & F Price – A		
Crude Handling and Incidental charges (7.282% of C&F Price)**		
<b>Sub-Total – B</b>		
EX Refinery Price – (C=A+B)		
GST (15% of EX Refinery Price		
Selling Price – D		
OMC Margin (3.5% of Selling Price)		
GST (15% on OMC Margin)		
Sub Total – E		
Market Price – (F=D+E)		
<b>Cost of RFO excluding GST (GHV)</b>		
<b>Inland Freight</b>		
<b>Total Cost of RFO excluding GST (GHV)</b>		

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





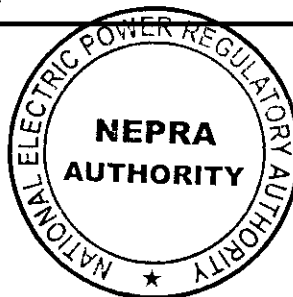
variation, KIBOR variation and fuel price variation will be approved and announced by the Authority for immediate application within seven working days after receipt of BPL's request for adjustment in accordance with the requisite indexation mechanism stipulated herein.

For one time adjustment of relevant tariff components at COD according to the mechanism laid down in this order, BPL shall submit the relevant documents to NEPRA within 30 days of COD for adjustment.

**XII. Terms and Conditions of Tariff:**

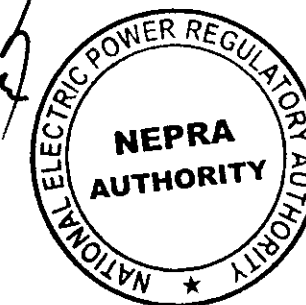
- i) Capacity Charge Rs./kW/hour applicable to dependable capacity at the delivery point.
- ii) The tariff is applicable for a period of 25 years commencing from the date of the Commercial Operation.
- iii) The plant availability shall be 88%.
- iv) All new equipment will be installed and the plant will be of standard configuration.
- v) Dispatch criterion will be based on the Energy Charge.
- vi) Internal consumption (including air-cooled condenser) has been assumed to be approximately 5.55 MW.
- vii) Scheduled Outage periods per annum shall be in accordance with the 2006 standardized PPA.
- viii) NTDC will be responsible for constructing the interconnection to the grid.
- ix) All invoicing and payment terms are assumed to be in accordance with the 2006 standardized PPA.
- x) Tolerance in Dispatch shall be in accordance with 2006 standardized PPA.
- xi) If there is any change in any assumption that may lead to change in the tariff shall be referred to NEPRA for approval.
- xii) If IPP is required by the power purchaser to deliver power above 132 kV, any additional cost to be incurred by the IPP shall be submitted to NEPRA for adjustment. The adjustment request by the IPP shall be duly verified by the power purchaser.
- xiii) 100% of debt has been assumed to be local provided however that in the event BPL uses a mix of foreign and local loan, the future benefits of the lower interest rates shall be passed on to the Power Purchaser.
- xiv) No corporate income tax and no minimum turnover tax have been assumed.
- xv) Working capital has been financed by a separate Working Capital facility, and is not included in the project cost.

The above tariff and terms and conditions be incorporated in the Power Purchase Agreement between BPL and CPPA.



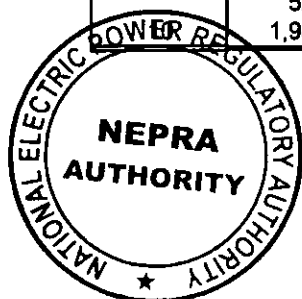
**Bestway Power Limited (BPL)**  
**Reference Tariff Table**

Year	Energy Charge (Rs./kWh)				Capacity Charge (Rs./kW/Hour)											Capacity Charge at 60% PF	Tariff		
	Fuel	Variable O&M Foreign	Variable O&M Local	Total	Fixed O&M Local	Fixed O&M Foreign	Cost of Working Capital	Insurance	ROE	ROEDC	Withholding Tax @7.5%	Loan Repayment	Interest Charges	Total	Rs. per kWh	Rs. per kWh	¢ per kWh		
1	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.3431	0.8045	1.8503	3.0838	8.3296	13.2742		
2	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.3890	0.7586	1.8503	3.0838	8.3296	13.2742		
3	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.4410	0.7066	1.8503	3.0838	8.3296	13.2742		
4	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.4999	0.6476	1.8503	3.0838	8.3296	13.2742		
5	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.5668	0.5808	1.8503	3.0838	8.3296	13.2742		
6	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.6426	0.5050	1.8503	3.0838	8.3296	13.2742		
7	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.7285	0.4190	1.8503	3.0838	8.3296	13.2742		
8	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.8260	0.3216	1.8503	3.0838	8.3296	13.2742		
9	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.9364	0.2111	1.8503	3.0838	8.3296	13.2742		
10	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	1.0616	0.0859	1.8503	3.0838	8.3296	13.2742		
11	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263		
12	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263		
13	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263		
14	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263		
15	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263		
16	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263		
17	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263		
18	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263		
19	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263		
20	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263		
21	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263		
22	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263		
23	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263		
24	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263		
25	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263		
Levelized Tariff		0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.3951	0.3817	1.4796	2.4659	7.7117	12.3895		



**Bestway Power Limited (BPL)**  
**Debt Servicing Schedule**

Period	Local Debt					Annual Principal Repayment Rs./kW/ hr.	Annual Interest Rs./kW/ hr.	Annual Debt Servicing Rs./kW/ hr.
	Principal Million Rs.	Repayment Million Rs.	Mark-up Million Rs.	Balance Million Rs.	Debt Service Millin Rs.			
1	12,040.60	153.02	383.79	11,887.59	536.81	0.3431	0.8045	1.1476
	11,887.59	157.89	378.92	11,729.69	536.81			
	11,729.69	162.93	373.88	11,566.77	536.81			
	11,566.77	168.12	368.69	11,398.65	536.81			
	12,040.60	641.96	1,505.29	11,398.65	2,147.24			
	11,398.65	173.48	363.33	11,225.17	536.81			
2	11,225.17	179.01	357.80	11,046.16	536.81	0.3890	0.7586	1.1476
	11,046.16	184.71	352.10	10,861.45	536.81			
	10,861.45	190.60	346.21	10,670.84	536.81			
	11,398.65	727.80	1,419.44	10,670.84	2,147.24			
	10,670.84	196.68	340.13	10,474.17	536.81			
	10,474.17	202.95	333.86	10,271.22	536.81			
3	10,271.22	209.42	327.40	10,061.81	536.81	0.4410	0.7066	1.1476
	10,061.81	216.09	320.72	9,845.72	536.81			
	10,670.84	825.13	1,322.11	9,845.72	2,147.24			
	9,845.72	222.98	313.83	9,622.74	536.81			
	9,622.74	230.09	306.72	9,392.65	536.81			
	9,392.65	237.42	299.39	9,155.23	536.81			
4	9,155.23	244.99	291.82	8,910.25	536.81	0.4999	0.6476	1.1476
	9,845.72	935.47	1,211.77	8,910.25	2,147.24			
	8,910.25	252.80	284.01	8,657.45	536.81			
	8,657.45	260.85	275.96	8,396.59	536.81			
	8,396.59	269.17	267.64	8,127.43	536.81			
	8,127.43	277.75	259.06	7,849.68	536.81			
5	8,910.25	1,060.57	1,086.67	7,849.68	2,147.24	0.5668	0.5808	1.1476
	7,849.68	286.60	250.21	7,563.08	536.81			
	7,563.08	295.74	241.07	7,267.34	536.81			
	7,267.34	305.16	231.65	6,962.17	536.81			
	6,962.17	314.89	221.92	6,647.28	536.81			
	7,849.68	1,202.39	944.85	6,647.28	2,147.24			
6	6,647.28	324.93	211.88	6,322.35	536.81	0.6426	0.5050	1.1476
	6,322.35	335.29	201.53	5,987.07	536.81			
	5,987.07	345.97	190.84	5,641.10	536.81			
	5,641.10	357.00	179.81	5,284.10	536.81			
	6,647.28	1,363.19	784.05	5,284.10	2,147.24			
	5,284.10	368.38	168.43	4,915.72	536.81			
7	4,915.72	380.12	156.69	4,535.59	536.81	0.7285	0.4190	1.1476
	4,535.59	392.24	144.57	4,143.36	536.81			
	4,143.36	404.74	132.07	3,738.62	536.81			
	5,284.10	1,545.48	601.76	3,738.62	2,147.24			
	3,738.62	417.64	119.17	3,320.97	536.81			
	3,320.97	430.95	105.86	2,890.02	536.81			
8	2,890.02	444.69	92.12	2,445.33	536.81	0.8260	0.3216	1.1476
	2,445.33	458.87	77.94	1,986.46	536.81			
	3,738.62	1,752.15	395.09	1,986.46	2,147.24			
	1,986.46	473.49	63.32	1,512.97	536.81			
	1,512.97	488.58	48.23	1,024.39	536.81			
	1,024.39	504.16	32.65	520.23	536.81			
9	520.23	520.23	16.58	0.00	536.81	0.9364	0.2111	1.1476
	1,986.46	1,986.46	160.78	0.00	2,147.24			





**Decision of the Authority regarding Motion for Leave for Review filed by Bestway Power Limited (BPL) under Section 12(b) and 31 of the NEPRA Authority Act, 1997 read with Rule 16(6) of the NEPRA Tariff Standards and Procedures Rules – 1998**

Bestway Power Limited filed motion for leave for review on March 10, 2008 against the generation tariff determined by the Authority for Bestway on February 28, 2008. The motion for leave for review was based on the following issues;

- EPC Cost
- Non EPC cost including Non-EPC construction, Mobilization, Financing fees & charges and Interest charges during construction
- Fixed O&M & Variable O&M
- Return on Equity, Return on equity during construction & Withholding tax
- General Pass through Items

2. BPL sought the following relief from the Authority;

- Revision in EPC cost
- Allowing insurance cost that is not included in the scope of EPC contract.
- Allowing Non-EPC cost in respect of tube wells, pipelines, RO System, SCADA and Piling.
- Revision of mobilization costs
- Enhancing the limit of 3% to 3.5% for financing fees and charges due to long construction period of plant
- IDC to be calculated at KIBOR rate used in the case of LPTL
- Revision of fixed and variable O&M components
- Allowing adjustment for Rupee/Euro exchange rate variation and European inflation on foreign portion of the O & M
- Providing US\$/PKR exchange rate adjustment on return on equity.
- Allowing 33 months instead of 24 months for calculating ROEDC
- Providing withholding tax adjustment clause
- Corrections of typing errors and relief on the items mentioned in section k of the motion.
- If any other indirect cost/ duties are implemented by the GOP then it should be considered as pass-through cost.
- All other original determination by the Authority for which no change has been requested in this particular motion should be kept as same.
- Authority to decide within 10 days of receipt of this motion for leave for review.

3. The Authority admitted the motion for leave for review on March 17, 2008 and decided to hold a hearing in the matter on April 2, 2008. Accordingly invitation





letters were sent to all the stakeholders. The hearing was attended by the Ministry of Water and Power, CPPA, PPIB, petitioner and other stakeholders.

4. Issue wise discussion and decisions are given hereunder;

**EPC COST**

5. BPL submitted that after negotiations and discussions with MAN it had received the revised commercial and technical offer from the MAN Diesel -Germany (EPC Contractor) (No 5300184-01-13002 dated March 03, 2008) valid up to July 27, 2008. According to the documentary evidence provided by BPL the scope of EPC contract includes;

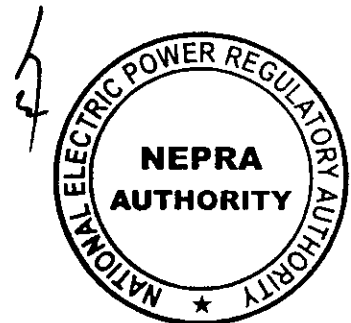
- i) Power generation sets together with all the necessary auxiliary machinery
- ii) Equipment and systems
- iii) Erection, testing, completion and commissioning of the complex
- iv) 30 day fuel tank storage (which includes 3 tanks of 10.000 m<sup>3</sup> for RFO)
- v) Fuel unloading pumping system
- vi) All heating and piping equipment
- vii) Fire fighting and safety equipment
- viii) 132 kV switchyard with 2 outgoing feeders for connection to the public grid
- ix) Emergency spare parts
- x) Pre-COD EAR/CAR and marine insurance

6. The revised proposed EPC cost is as follows

EPC Cost Offshore to be executed by MAN Diesel SE-Germany	Euro 133,400,000
EPC Cost Onshore to be executed by MAN Diesel -Pakistan	US\$ 21,533,175

7. Not included in the supply agreement of MAN Diesel SE is the delivery of:

- i) Any medium such as fuel oil and water all of which has to fulfill the quality requirement of MAN Diesel SE
- ii) Environmental Study
- iii) Site Investigation/Soil investigations
- iv) Piling (if required)
- v) Demolishment of existing structure, leveling and grading of site
- vi) Connection to the public grid
- vii) Landscaping, boundary wall and colony
- viii) Financing Costs (if required)



8. MAN Diesel vide its letter No. 5300184-01-B002 dated March 4, 2008 indicated that the EPC price included the cost of telecommunication system and SCADA as per the requirements of NTDC and LESCO and any additional costs for additional requirement by NTDC and or IESCO over the already included cost for the system

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based on LESCO standards would be the responsibility of BPL. The offer is valid up to July 27, 2008 while delivery schedule of the equipment is as under:

11 engines + 11 alternators	approx. October 2010
Mechanical auxiliaries	approx. July 2010
Electrical auxiliaries	approx. July 2010
Commercial Operation Date	31 <sup>st</sup> March 2011

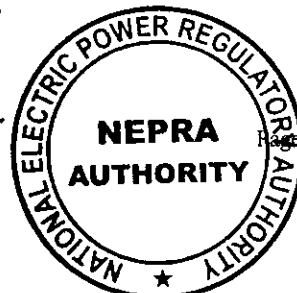
9. The delivery time shall begin from commencement date of the contract, i.e. with completion of financing arrangements, opening and confirmation of the L/C and receipt of the down payments whichever is later.
10. Having examined information/documentary evidence provided by the BPL the Authority considers that BPL's request for revision in EPC is justified. The Authority therefore decided to accept the EPC cost as such.

#### INSURANCE

11. BPL requested to allow insurance costs which are not covered in the EPC scope as per the revised commercial offer no 5300184-01-B002 dated March 03, 2008. According to BPL pre-COD EAR/CAR and marine insurance costs are part of the EPC scope. In addition to the aforementioned the following insurance costs are required as per schedule 8 of the PPA but not covered in the EPC scope:
  - i) Loss of Revenue due to delay in start up (following marine incident)
  - ii) Loss of Revenue due to delay in start up (Following CAR/EAR)
  - iii) Public Liability
  - iv) Other assets of the company (Vehicles, office equipment etc.)
  - v) Anti Terrorism
12. BPL stated that it was unable to obtain firm offer from any insurance company as the shipments of the project will commence approximately in July 2010 therefore the exact amount of insurance is not known. BPL requested to allow US\$ 1 million subject to adjustment as per actual at the time of COD.
13. The Authority considers that BPL's request is reasonable therefore has decided to allow BPL an adjustment of insurance cost, if any, at the time of COD as per the actual subject to the maximum of US\$ 1 (one) million.

#### NON EPC CONSTRUCTION COST

14. BPL submitted that:
  - Depending on final site studies if BPL is required to incur cost for raw water it will be allowed to BPL through tariff adjustment.







- To allow any additional cost up to Euro 250,000 subject to the verification at the time of COD, for additional requirement from NTDC and/or IESCO, if any, as compared to the standard requirements of LESCO.
  - To allow piling cost, if any, subject to maximum of US\$ 1.5 million.
15. The Authority is of the opinion that all the above mentioned costs except cost of installation of tube wells are not firm therefore cannot be considered at this point of time. However all or any of the cost can be considered at the time of COD based on the documentary evidence subject to the maximum of limits requested by BPL. The Authority considered BPL's request for allowing cost of tube-wells and observed that BPL's calculation of amount of US\$ 1.5 million for installation of tube-wells working was not correct. The correct calculation was US\$ 0.146 million. The Authority considers that the amount of US\$ 0.146 million or Rs. 9.184 million is reasonable therefore decided to allow as such.

#### **MOBILIZATION**

##### **Independent Consultant Share of Post Development Activity**

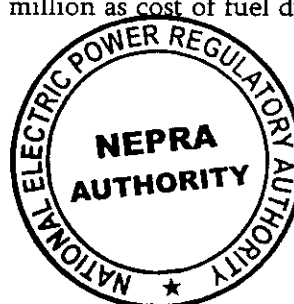
16. BPL submitted that its request for independent consultant's share of post development US\$ 2.322 million was disallowed in tariff determination. BPL at that point of time did not have any evidence. BPL now received an offer from Elain quoting a fee equivalent to US \$ 2.57 million. The Authority allowed US\$ 1.089 million as cost of independent engineer. Based on the quote received BPL requested an additional amount of US\$ 1.5 million on this account.
17. The evidence provided by BPL has been examined and evaluated thoroughly and found that the amount of US\$ 1.089 million already allowed to BPL was reasonable and request for allowing additional amount of US\$ 1.5 million on this account was not justified. Accordingly the Authority decided to maintain its earlier decision in this context.

##### **To Date Cost Incurred On the Project Appraisal Activity**

18. BPL submitted that NEPRA disallowed cost of US\$ 142.185 incurred for the evaluation of the project along with consultant fee for tariff petition and salaries of the project department.
19. BPL contention in this regard is not correct because these costs are included in the amount of US\$ 5.040 million assessed by the Authority on account of Mobilization/pre-operation cost.

##### **Fuel Cost during Trial Run**

20. BPL submitted that NEPRA allowed US\$ 0.43 million as cost of fuel during trial run.





BPL requested that the same may be allowed on actual basis during trial run because of the increasing trend in the fuel prices in international market.

21. The Authority considers that the fuel cost incurred during trial run is paid by the Power Purchaser therefore BPL's request in this regard is not maintainable.

**Contingency Cost for Additional Commissioning Services**

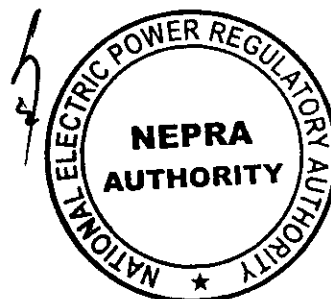
22. BPL submitted that in mobilization cost, an amount of \$ 300,000 was claimed against contingency for additional commissioning services (clause 8.3.3 of the revised technical specs of EPC contract) which was allowed by NEPRA considering as pre commissioning fuel cost. BPL requested to review Authority's decision thus allowing contingency cost separately.
23. As a policy, the Authority does not allow any contingency cost because almost all the costs are indexed and are subject to adjustment at COD with relevant indexations. As regards the contingency cost for additional commissioning services the Authority considers that such cost is part of EPC contract therefore no separate cost is required to be provided in this regard. The Authority therefore decided not to alter its earlier decision.

**FINANCING FEES AND CHARGES**

24. BPL requested for enhancement of financing fee and charges cap of 3% to 3.5% of the borrowing due to the longer construction period of the project.
25. The Authority considered the BPL's request and is of the opinion that cap of 3% was put by the Authority after taking into account the terms and conditions of different lenders with some cushion for unforeseen factors. The Authority considers that the ceiling of 3% for financing fee and charges is reasonable and needs no further revision in this regard.

**INTEREST DURING CONSTRUCTION**

26. BPL has requested for assessing its Interest During Construction using the same KIBOR rate that has been used in the case of Liberty Power Tech Limited i.e. 13.45% as compared to 12.75% for BPL.
27. BPL's request for using KIBOR rate used in the case of Liberty Power Tech Limited is not understandable because the KIBOR rate is subject to adjustment as per the actual. IDC will be calculated at the time of COD according to the KIBOR applicable according to the actual disbursements. BPL request in this regard is not maintainable at this point of time.





### Variable O&M Cost

28. According to BPL NEPRA allowed Rs. 0.4646 per kWh on account of Variable O&M. The foreign component as per the determination turned out to be 90% while local component was 10%. In similar plant the Authority allowed Rs. 0.0928 per kWh for local portion of the Variable O&M which after adjustment for relevant indexations worked out 0.1234 per kWh. According to BPL its local Variable cost should be around 26% of the total Variable cost at the end of FY 2007. BPL requested for revision of its variable O&M cost to Rs. 0.5581 per kWh.
29. The Authority considered the BPL's request and observed that BPL's request was not consistent with its original submissions. While deciding BPL's petition the Authority based its decision on the information provided by the BPL with regards to bifurcating the foreign and local O&M component keeping the overall variable O&M comparable with other similar projects after incorporating relevant indexations. According to BPL petition its O&M operator fee and duties comprised of 87% of the total variable O&M cost. BPL in its tariff petition requested for Variable O&M cost of Rs. 0.4719 per kWh while NEPRA determined it as Rs. 0.4646 per kWh. In the review motion BPL requested to revise its O&M which is about 18% higher than its original claim. The request is not duly substantiated with the relevant/necessary documents because BPL has not been able to finalize its O&M contract.
30. In the absence of any reliable documentary evidence and the abovementioned reasons the Authority in addition to the information provided by BPL had to rely on its earlier decisions in similar cases. The Authority after adjusting variable O&M cost allowed in other similar cases for applicable relevant indexations has assessed variable O&M foreign cost as Rs. 0.3666/kWh and local component as Rs. 0.0980 per kWh.

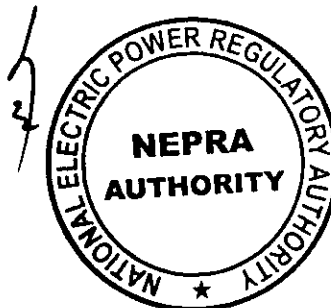
### ADJUSTMENT IN O&M COST

31. BPL has requested for allowing Rs./Euro exchange rate variation and European inflation on foreign portion of O&M cost.
32. The power policy does not allow PKR/Euro exchange rate variation and European inflation on foreign portion of O&M cost therefore BPL's request is not maintainable.

### FIXED O&M

33. BPL requested fixed O&M of Rs. 0.1772 per KW per hour which was based on foreign fixed O&M charges of US\$ 3.312 million per year payable to the O&M contractor and local general administration cost of US\$ 1.76 million per year while in determination of tariff, NEPRA allowed BPL Rs 0.1353 per kWh. BPL requested for revision in the fixed component on the following grounds:

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- BPL submitted tariff petition on September 10, 2007 whereas the determination was decided on February 28, 2008. The WPI for the month of September was 124.36 and the WPI for the December was 125.67. BPL understands that the increase in WPI was not considered in determination.
  - The O & M contractor (European Origin) is charging us a fixed fee in US \$ based on the exchange parity of US \$ to Euro at 1.2 (applicable at the time of tariff petition). At the time of determination the above exchange rate was revised to 1.4582. BPL pointed out that while determining, the Fixed O&M was not adjusted for the change in parity.
34. The Authority considered the BPL's request for allowing Fixed O&M of Rs. 0.1772/kW/hr. On the basis of BPL's request the annual Fixed O&M works out as US\$ 5.072 million as against US\$ 4 million per annum allowed in other similar projects which is about 27% higher. The Authority gave reasons at para 12.1 of the determination dated February 28, 2008 while determining the Fixed O&M cost of Rs. 0.1353/kW/hr. BPL's O&M contract was not finalized at the time of determination. The same has not yet been finalized. The Authority considers that without finalization of O&M contract such a request is not justified. In the absence of such a contract the Authority decided to allow the same fixed O&M cost which was allowed to other similar projects.
35. After incorporating the relevant adjustment allowed to other similar projects, the fixed O&M works out as US\$ 4.224 million which translates into Rs. 0.1393/kW/hr as against Rs. 0.1353/kW/hr allowed in the original determination of February 28, 2008. BPL's fixed O&M is accordingly being revised from Rs. 0.1353/kW/hour to Rs. 0.1393/kW/hour.

#### RETURN ON EQUITY (ROE)

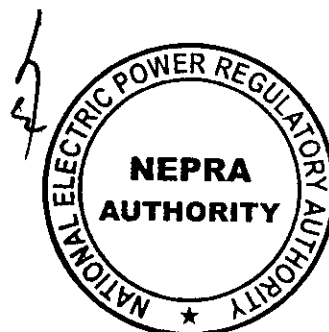
36. BPL submitted that the quarterly adjustments on account of US\$/PKR exchange rate based on the revised TT&OD selling rate of USD as notified by the National Bank of Pakistan (NBP), should be allowed which is also in line with the decision of the Economic Coordination Committee (ECC) and allowed to other similar projects.
37. BPL's request is in line with the GoP policy and ECC's decision therefore the Authority decided to allow quarterly adjustment on account of US\$/PKR exchange rate variation according to the following formula;

$$ROE_{(Rev)} = ROE_{(Ref)} * ER_{(Rev)} / 62.75$$

Where;

ROE<sub>(Rev)</sub> = Revised ROE

ROE<sub>(Ref)</sub> = Reference ROE





ER (Rev)= The revised TT & OD selling rate of US dollar as notified by  
the National Bank of Pakistan

#### RETURN ON EQUITY DURING CONSTRUCTION

38. According to BPL, it requested ROEDC of Rs. 0.0965 per KW per hour based on 42 months construction period. Reducing the construction period was not possible due to equipment manufacturer's constraints because of high demand throughout the world. According to BPL its construction period has now been reduced to 33 months from 42 months on the basis of the revised offer from EPC Contractor (valid up to July 2008. BPL has requested for allowing construction period of the 33 months based on actual disbursement.
39. The Authority considered the BPL's request and is of the opinion that ROEDC calculation on the basis of 33 months construction period is not justified. The Authority has already taken lenient view in this regard and allowed 24 months construction period for the purpose of calculation of ROEDC as against the normal construction period of 15 months for Reciprocating Engines Technology. Further enhancing the period would result in unjustified burden on the Power Purchaser and ultimately the end-consumer.

#### WITHHOLDING TAX

40. BPL requested that withholding tax clause should be included in tariff petition by the Authority which should be allowed at 7.5% or the actual applicable rate or the ROE and ROEDC subject to adjustment in US\$/PKR exchange rate variation. It should be adjusted accordingly on account of exchange rate variation.
41. BPL's request has no bearing on tariff therefore is being accepted. Withholding tax will be adjusted according to the following formula:

$$WT (Rev) = WT(Ref) * ER (Rev)/62.75$$

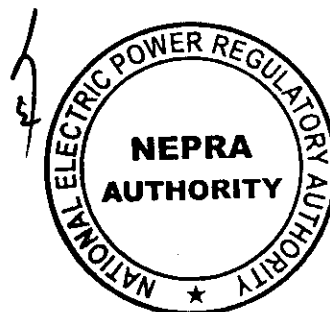
Where;

WT (Rev) = Withholding tax revised

WT (Ref) = Reference Withholding tax

ER(Rev) = The revised TT&OD selling rate of US dollar as notified by the National Bank of Pakistan

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## GENERAL

### I) Adjustment Due to net capacity:

42. BPL submitted for review of decision of the Authority regarding adjustment of Capacity charge based on Initial Dependable Capacity (IDC) test as clause 6.3 (plant capacity) of the determination. BPL requested for adjustment after the tolerance limit of  $\pm 5\%$ .
43. The BPL's request is not consistent with the terms of Power Purchase Agreement (PPA) therefore cannot be accepted.

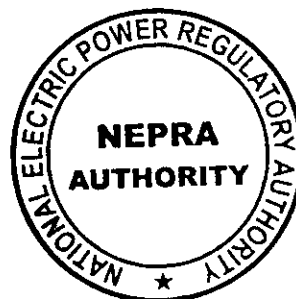
### PASS THROUGH ITEMS:

44. BPL proposed to modify the item no VII. under pass through items as follows;
- "No provision for income tax has been accounted for in the tariff. If BPL is obligated to pay any tax on its ROE the exact amount paid by the company should be reimbursed by CPPA....."
45. The BPL's request is not consistent with the determination dated February 28, 2008. The Authority however considers that for the purpose of clarity the referred item needs to be modified. Accordingly the item no. VII under pass through is modified as follows:
- "No provision for income tax, workers' profit participation fund and workers' welfare fund, any other tax, excise duty or other duty, levy, charge, surcharge or other governmental impositions, payable on the generation, sales, exploration has been accounted for in the tariff. If BPL is obligated to pay any tax on the income purely generated from its operation i.e. Electricity Generation of power producer, the exact amount should be reimbursed by CPPA....."

### Summary of the Decision

46. The summary of the decisions is given hereunder:
- i) EPC cost has been revised to:  
Offshore to be executed by MAN Diesel SE-Germany Euro 133,400,000  
Onshore to be executed by MAN Diesel -Pakistan US\$ 21,533,175
  - ii) Installation of tube-well cost of Rs. 9.184 million or US\$ 0.146 million is accepted.
  - iii) Variable O&M cost as per the Authority's earlier decision in the similar cases after incorporating the adjustments of relevant indexations has been revised to:  
Foreign 0.3666/kWh

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Local 0.0980/kWh

**Total 0.4646/kWh**

- iv) Fixed O&M cost as per the Authority's earlier decision in the similar cases after incorporating the adjustments of relevant indexations has been revised to:

Foreign 0.0885/kW/hr

Local 0.0508/kW/hr

**Total 0.1393/kW/hr**

- v) Return on Equity mechanism has been provided  
vi) Withholding tax mechanism has been provided  
vii) Item no. VII under pass through items has been modified as:

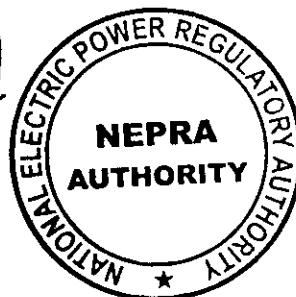
*"No provision for income tax, workers' profit participation fund and workers' welfare fund, any other tax, excise duty or other duty, levy, charge, surcharge or other governmental impositions, payable on the generation, sales, exploration has been accounted for in the tariff. If BPL is obligated to pay any tax on the income purely generated from its operation i.e. Electricity Generation of power producer, the exact amount should be reimbursed by CPPA....."*

47. The following adjustments will be considered at the time of COD;

- i) Insurance cost to be born by BPL as per the PPA requirement as per the actual subject to maximum of US\$ 1.00 (one) million.  
ii) Piling cost, if any, as per actual subject to the maximum of US\$ 1.5 million.  
iii) Additional cost up to Euro 250,000 for additional requirement from NTDC and/or IESCO, if any, as compared to the standard requirement of LESCO

48. After incorporating all the above decisions the project cost detail is also given hereunder;

Plant Capacity (Gross ISO) MW	225.00
Plant Capacity (Net at reference site conditions) MW	213.60
Auxiliary consumption (including air-cooled condenser) MW	5.55
Plant Availability	88%
EPC PriceOffshore	€133,400, 000
EPC PriceOnshore	US\$ 21,533,175
Non-EPC construction Cost	US\$ 1,997,548
Mobilization/Pre-Operation Cost	US\$ 5,040,712
Development Cost	US\$ 2,363,730
Land Acquisition and Land Improvement	US\$ 1,766,394
Custom Duties & Taxes	US\$ 9,725,976
Financing Fees	US\$ 4,993,819
Interest During Construction	US\$ 13,901,945
Total Project Cost	US\$ 255,842,822





Debt	US\$ 191.882 million
Equity	US\$ 63.961 million
Debt:Equity Ratio	75:25
Reference PKR/Euro exchange rate	91.50
Reference PKR/\$ exchange rate	62.75
Reference Calorific Value of HSFO	40,792 BTUs/Kg
HHV/LHV Adjustment Factor	1.05
Reference Fuel Price (LHV)	Rs.22,140.07/M.Ton
Reference Inland Freight	Rs. 2,350/M.Ton
Reference Thermal Efficiency (Net LHV)	45%
Reference KIBOR (3-monthly)	9.75%
IRR (Net of withholding tax of 7.5%)	15%

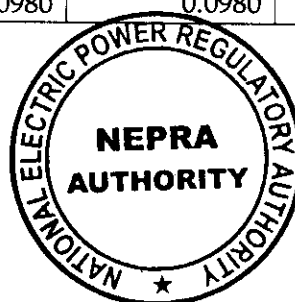
49. As discussed above, the Authority hereby revises the generation tariff of Best way Power Limited (BPL) as set out in the following final order;

**FINAL ORDER**

Pursuant to Rule 6 of the NEPRA Licensing (Generation) Rules 2000, Bestway Power Limited (BPL) is allowed to charge, subject to adjustment of Capacity Purchase Price on account of net dependable capacity as determined by a test jointly carried out by Central Power Purchasing Agency (CPPA) and the petitioner, the following is approved as specified tariff for BPL for delivery of electricity to CPPA of NTDC for procurement on behalf of Ex-WAPDA Distribution Companies:

**Specified Reference Tariff**

Tariff Components	Year 1 to 10	Year 11 to 25	Indexation
<b>Capacity Charge PKR/kW/Hour)</b>			
O&M Local	0.0508	0.0508	WPI
O&M Foreign	0.0885	0.0885	US\$ /PKR & US CPI
Cost of Working Capital	0.0850	0.0850	KIBOR
Insurance	0.0978	0.0978	US\$ /PKR
Debt Service	1.1476		KIBOR
Return on Equity	0.3217	0.3217	US\$ /PKR
ROE during Construction	0.0324	0.0324	US\$ /PKR
<b>Total Capacity Charge</b>	<b>1.8237</b>	<b>0.6762</b>	
<b>Energy Charge on Operation on Furnace Oil Rs./kWh</b>			
Fuel Cost Component	4.7811	4.7811	Fuel Price
Variable O&M			
Foreign	0.3666	0.3666	US\$ /PKR & US CPI
Local	0.0980	0.0980	WPI







Note: i) Component wise tariff for operation on RFO is indicated at Annex-I. Debt Servicing Schedule is attached as Annex-II.

The following adjustments /indexations shall be applicable to reference tariff;

I. **Adjustment in EPC Cost (One Time)**

The Authority has assessed offshore EPC cost as € 133.40 million and onshore as US\$ 21.53 million (onshore to be incurred in Pak Rupees). Since the exact timing of payment to EPC contractor is not known at this point of time therefore an adjustment for relevant foreign currency fluctuation for the portion of payment in the relevant foreign currency will be made. In this regard the sponsor will be required to provide all the necessary relevant details along with documentary evidence. Based upon such information the EPC cost components in Euro or Dollar shall be established and shall be applied to the corresponding EPC cost components. The adjustment shall be only for currency fluctuation against the reference parity values according to the following mechanism;

$$EPC_{(Offshore)}_{(Adj.)} = PKR\ 12,206.1\ \text{Million} / 91.5 * E_{(PR)}$$

$$EPC_{(Onshore)}_{(Adj.)} = PKR\ 13,51.21\ \text{Million} / 62.75 * E_{(PR)}$$

Where:

$E_{(PR)}$  = Respective Weighted Average PKR/EURO and PKR/US\$ parity based upon timing of the payment

The tariff components i.e. Insurance, ROE, ROEDC, Principal Repayment and Interest Charges shall be adjusted according to the following formula at COD.

i) **Insurance Adjustment Mechanism for EPC Cost Variation**

$$Ins_{(Rev)} = Ins_{(Ref)} / EPC_{(Ref)} * EPC_{(Adj.)}$$

Where:

$Ins_{(Rev)}$  = Revised insurance component of tariff

$Ins_{(Ref)}$  = Reference insurance component of tariff

$EPC_{(Ref.)}$  = Reference EPC in PKR.

$EPC_{(Adj.)}$  = Adjusted EPC in PKR

ii) **Return on Equity Adjustment Mechanism for EPC Cost Variation**

$$ROE_{(Rev)} = ROE_{(Ref)} / E_{(Ref)} * E_{(Rev)}$$





Where:

$ROE_{(Rev)}$  = Revised reference Return on Equity component of tariff in PKR

$ROE_{(Ref)}$  = Reference Return on Equity component of tariff as per original schedule of tariff in PKR

$E_{(Ref)}$  = Reference Equity in PKR (Rs. 4,013.534 million)

$E_{(Rev)}$  = Revised amount of Equity in PKR

**iii) ROEDC Adjustment Mechanism for EPC Cost Variation**

$$ROEDC_{(Rev)} = ROEDC_{(Ref)} / EDC_{(Ref)} * EDC_{(Rev)}$$

Where:

$ROEDC_{(Rev)}$  = Revised Return on Equity during Construction component of tariff in PKR

$ROEDC_{(Ref)}$  = Reference Return on Equity During Construction components of tariff in PKR

$EDC_{(Ref)}$  = Reference Equity During Construction in PKR

$EDC_{(Rev)}$  = Revised Equity During Construction in PKR

**iv) Debt Servicing Adjustment Mechanism for EPC Cost Variation**

$$DS_{(Rev)} = DS_{(Ref)} / Debt_{(Ref)} * Debt_{(Rev)}$$

Note: The adjustment factor established as per the above formula shall be applicable to the individual components of principal and interest during the entire repayment period.

$DS_{(Rev)}$  = Revised Debt Servicing component of tariff

$DS_{(Ref)}$  = Reference Debt Servicing component of tariff

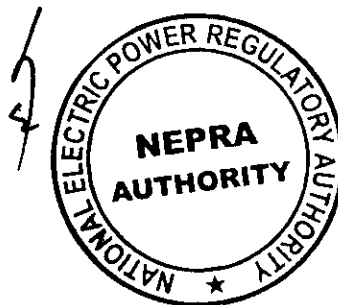
$Debt_{(Ref)}$  = Reference amount of Debt in PKR (Rs. 12,040.6)

$Debt_{(Rev)}$  = Revised amount of Debt in PKR

**II. Adjustment due to Variation in Net Capacity**

The reference tariff has been determined on the basis of minimum net capacity of 213.60 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 Initial Dependable Capacity (IDC) tests to be carried out for determination of contracted capacity. Adjustment shall not be made if IDC is established less than 213.60 MW net capacity at reference site conditions. The adjustments shall be made according to the following formula:

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$$CC_{(Adj.)} = CC_{(Ref.)} \times 213.60 MW / NC_{(IDC)}$$

Note: Above formula shall be applicable to all the individual relevant components of Capacity Charges.

Where;

$CC_{(Adj.)}$  = Adjusted relevant Capacity Charge components of tariff  
 $CC_{(Ref.)}$  = Reference relevant Capacity Charge components of tariff  
 $NC_{(IDC)}$  = Net Capacity at reference site conditions established at the time of IDC test

Note:- Reference capacity charge components of Tariff i.e. Revised O&M Foreign, Revised O&M Local, Insurance, Debt Servicing, Return on Equity and ROEDC to be adjusted as per IDC test.

Reference Conditions:

Ambient Temperature	Min 3 °C Max 50 °C
Altitude (maximum)	500 m
Air Inlet Temperature	30 °C
Air Inlet Pressure	989 mbar
Charge air temperature before cylinder	47 °C
Exhaust gas back pressure	≤ 30 mbar
Intake air pressure loss	≤ 20 mbar



### III. Adjustment in Insurance as per actual

The actual insurance cost for the minimum cover required under contractual obligations with the Power Purchaser not exceeding 1.35% of the EPC cost will be treated as pass-through. Insurance component of reference tariff shall be adjusted as per actual on yearly basis upon production of authentic documentary evidence by BPL according to the following formula;

$$\text{Insurance}_{(Rev)} = AIC / (1.35 \% \times \text{US\$ } 2.916 \text{ Million}) * AP$$

Where;

AIC = Adjusted Insurance Component (Rs. kW/hr) as per IDC Test

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

### IV. Adjustment Based on Actual Interest During Construction

Debt Service, Return on Equity and ROE during construction shall be adjusted on account of actual variation in drawdown and Interest During Construction with

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reference to the estimated figures.

**V. Adjustment due to Custom Duties & Taxes**

Debt Service, Return on Equity and ROE during construction shall be adjusted on account of actual variation in custom duties & Taxes with reference to the estimated figures of US\$ 9.725 million. The impact of withholding tax on local services is not known at this point of time. However, these will be adjusted along with other duties and taxes as per the actual on provision of documentary evidence at COD.

**VI. Adjustment for variation in Rupee/Dollar parity**

Relevant reference tariff components shall be adjusted at COD on account of variation in PKR/US\$ parity.

**VII. Adjustment in Return on Equity (ROE)**

Return on Equity will be quarterly adjusted on account of variation in PKR/US\$ parity according to the following formula:

$$ROE_{(Rev)} = ROE_{(Ref)} * ER_{(Rev)} / 62.75$$

Where;

ROE<sub>(Rev)</sub> = Revised ROE

ROE<sub>(Ref)</sub> = Reference ROE

ER<sub>(Rev)</sub> = The revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan

**VIII. Adjustment in Return on Equity during Construction (ROEDC)**

Return on Equity during Construction will be quarterly adjusted on account of variation in PKR/US\$ parity according to the following formula:

$$ROEDC_{(Rev)} = ROEDC_{(Ref)} * ER_{(Rev)} / 62.75$$

Where;

ROEDC<sub>(Rev)</sub> = Revised ROEDC

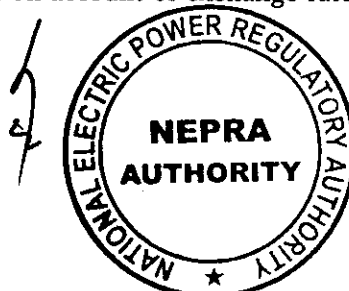
ROEDC<sub>(Ref)</sub> = Reference ROEDC

ER<sub>(Rev)</sub> = The revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan

**IX. Adjustment of Withholding Tax**

Withholding tax will be adjusted on account of exchange rate variation according to the following formula:

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$$WT_{(Rev)} = WT_{(Ref)} * ER_{(Rev)} / 62.75$$

Where;

$WT_{(Rev)}$  = Withholding tax revised

$WT_{(Ref)}$  = Reference Withholding tax

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

**X. Pass-Through Items**

- i) "No provision for income tax, workers' profit participation fund and workers' welfare fund, any other tax, excise duty or other duty, levy, charge, surcharge or other governmental impositions, payable on the generation, sales, exploration has been accounted for in the tariff. If BPL is obligated to pay any tax on the income purely generated from its operation i.e. Electricity Generation of power producer, the exact amount should be reimbursed by CPPA on production of original receipts. This payment may be considered as pass-through (as Rs./kW/hour) hourly payment spread over a 12 months period in addition to the capacity purchase price in the Reference Tariff. Furthermore, in such a scenario, BPL may also submit to CPPA details of any tax shield savings and CPPA will deduct the amount of these savings from its payment to BPL on account of taxation.
- ii) Withholding tax on dividend is also a pass through item just like other taxes as indicated in the government guidelines for determination of tariff for new IPPs. In a reference tariff table withholding tax number is indicated as reference and CPPA (NTDC) shall make payment on account of withholding tax at the time of actual payment of dividend subject to maximum of 7.5% of 15% reference equity i.e. hourly payment (Rs./kW/hour) spread over a 12 month period according to the following formula:

$$\text{Withholding Tax Payable} = \{[15\% * (E_{(Ref)} - E_{(Red)})] + ROEDC_{(Ref)}\} * 7.5\%$$

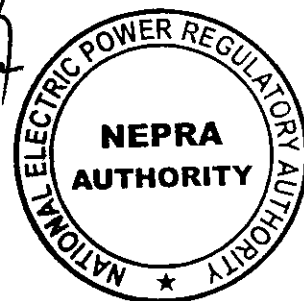
Where:

$E_{(Ref)}$  = Adjusted Reference Equity at COD

$E_{(Red)}$  = Equity Redeemed

$ROEDC_{(Ref)}$  = Reference Return on Equity During Construction

- iii) 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 pay out.





**XI. Indexations:**

The following indexation shall be applicable to the reference tariff as follows;

**a) Indexation applicable to O&M**

The Fixed O&M local component of Capacity Charge will be adjusted on account of Inflation (WPI) and Fixed O&M foreign component 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 1<sup>st</sup> July, 1<sup>st</sup> October, 1<sup>st</sup> January and 1<sup>st</sup> April based on the latest 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:

**i) Fixed O&M**

$$F O\&M_{(LREV)} = \text{Rs. } 0.0508/\text{kW/Hour} * WPI_{(REV)} / 125.67$$

$$F O\&M_{(PREV)} = \text{Rs. } 0.0885/\text{kW/Hour} * US CPI_{(REV)} / 210.036 * ER_{(REV)} / 62.75$$

Where:

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

$F O\&M_{(PREV)}$  = the revised applicable Fixed O&M Foreign Component of the Capacity Charge indexed with US CPI (All Urban) and Exchange Rate variations

$WPI_{(REV)}$  = the revised wholesale Price Index (manufactures)

$WPI_{(REF)}$  = 125.67 wholesale price index (manufactures) of December 2007 notified by Federal Bureau of Statistics

$US CPI_{(REV)}$  = the revised US CPI (All Urban)

$US CPI_{(REF)}$  = 210.036 US CPI (All Urban) for the month of December 2007 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.

**ii) Variable O&M**

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

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$$V O\&M_{(LREV)} = Rs. 0.0980 /kW/Hour * WPI_{(REV)} / 125.67$$

$$V O\&M_{(FREV)} = Rs. 0.3666/kW/Hr * US CPI_{(REV)} / 210.036 * ER_{(REV)} / 62.75$$

Where:

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

$V O\&M_{(FREV)}$  = the revised applicable Variable O&M Foreign Component of the Capacity Charge indexed with US CPI (All Urban) and Exchange Rate variations

$WPI_{(REV)}$  = the revised wholesale Price Index (manufactures)

$WPI_{(REF)}$  = 125.67 wholesale price index (manufactures) of December 2007 notified by Federal Bureau of Statistics

$US CPI_{(REV)}$  = the revised US CPI (All Urban)

$US CPI_{(REF)}$  = 210.036 US CPI (All Urban) for the month of December 2007 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 Variable O&M indicated above shall be replaced with the revised number at COD after incorporating the required adjustment based upon the IDC Test.

iii) Adjustment for KIBOR variation

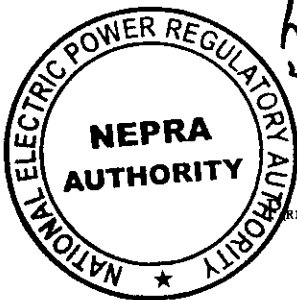
The interest part of fixed charge component will remain unchanged throughout the term except for the adjustment due to variations in interest rate as a result of variation in quarterly KIBOR according to the following formula;

$$\Delta I_{(L)} = P_{(LREV)} * (KIBOR_{(REV)} - 9.75\%) / 4$$

Where:

$\Delta I_{(L)}$  = the variation in interest charges on local loan applicable corresponding to variation in quarterly KIBOR.  $\Delta I$  can be positive or negative depending upon whether  $KIBOR_{(REV)} >$  or  $< 9.75\%$ . The interest payment obligation will be enhanced or reduced to the extent of  $\Delta I$  for each quarter under adjustment applicable on quarterly basis

$P_{(REV)}$  = is the outstanding principal (as indicated in the attached debt service schedule to this order) on a quarterly basis on the relevant quarterly calculations date. Period 1 shall commence





on the date on which the 1<sup>st</sup> installment is due after availing the grace period.

iv) **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 mechanism given below:

$$FC_{(Rev)} = (Rs.4.3223 \text{ per kWh} * FP_{(Rev)}) / Rs.23,247.07 \text{ per ton}/40,792 * CV_{(Rev)} + (Rs.0.4588 \text{ per kWh} * Ft_{(Rev)}) / Rs. 2,467.50 \text{ per ton}$$

Where:

- FC<sub>(Rev)</sub> = Revised fuel cost component of Variable Charge on RFO.  
CV<sub>(Rev)</sub> = Revised Calorific Value  
Ft<sub>(Rev)</sub> = Revised Freight Charges adjusted for NHV-GHV factor  
FP<sub>(Rev)</sub> = The new price of RFO per Metric Ton adjusted for NHV/GHV factor of 1.05 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 (7.282% of C&F Price)**		
<b>Sub-Total – B</b>		
EX Refinery Price – (C=A+B)		
GST (15% of EX Refinery Price)		
Selling Price – D		
OMC Margin (3.5% of Selling Price)		
GST (15% on OMC Margin)		
Sub Total – E		
Market Price – (F=D+E)		
<b>Cost of RFO excluding GST (GHV)</b>		
<b>Inland Freight</b>		
<b>Total Cost of RFO excluding GST (GHV)</b>		

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.

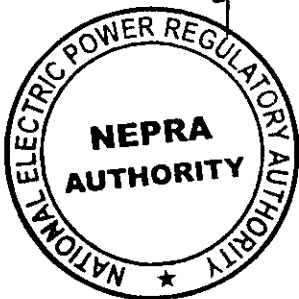
The fuel cost component will be adjusted after the commercial operation date, at the time of revision in RFO price.

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 BPL's request for adjustment in accordance with the requisite indexation mechanism stipulated herein.

For one time adjustment of relevant tariff components at COD according to the mechanism laid down in this order, BPL shall submit the relevant documents to NEPRA within 30 days of COD for adjustment.

## **XII. Terms and Conditions of Tariff:**

- i) Capacity Charge Rs./kW/hour applicable to dependable capacity at the delivery point.
- ii) The tariff is applicable for a period of 25 years commencing from the date of the Commercial Operation.
- iii) The plant availability shall be 88%.
- iv) All new equipment will be installed and the plant will be of standard configuration.
- v) Dispatch criterion will be based on the Energy Charge.
- vi) Internal consumption (including air-cooled condenser) has been assumed to be approximately 5.55 MW.
- vii) Scheduled Outage periods per annum shall be in accordance with the 2006 standardized PPA.
- viii) NTDC will be responsible for constructing the interconnection to the grid.
- ix) All invoicing and payment terms are assumed to be in accordance with the 2006 standardized PPA.
- x) Tolerance in Dispatch shall be in accordance with 2006 standardized PPA.
- xi) If there is any change in any assumption that may lead to change in the tariff shall be referred to NEPRA for approval.
- xii) If IPP is required by the power purchaser to deliver power above 132 kV, any additional cost to be incurred by the IPP shall be submitted to



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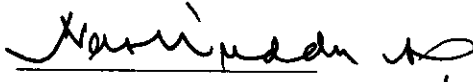


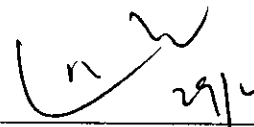
NEPRA for adjustment. The adjustment request by the IPP shall be duly verified by the power purchaser.


- xiii) 100% of debt has been assumed to be local provided however that in the event BPL uses a mix of foreign and local loan, the future benefits of the lower interest rates shall be passed on to the Power Purchaser.
- xiv) No corporate income tax and no minimum turnover tax have been assumed.
- xv) Working capital has been financed by a separate Working Capital facility, and is not included in the project cost.

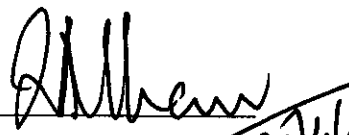
The above tariff and terms and conditions be incorporated in the Power Purchase Agreement between BPL and CPPA.

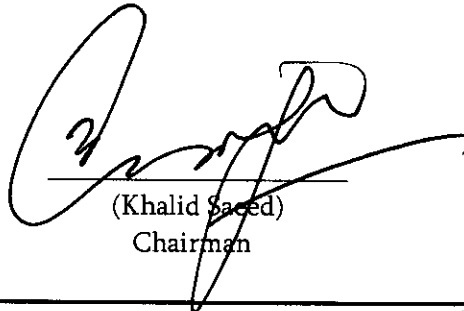
### Authority

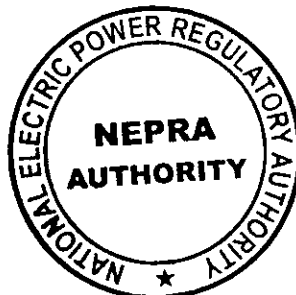
  
(Nasiruddin Ahmed)  
Member  
28/4/08

  
(Khawaja Maqbool Ahmed)  
Member  
29/4

  
(Abdul Rahim Khan)  
Member  
30/4/08

  
(Zafar Ali Khan)  
Member/Vice Chairman  
29/4/08

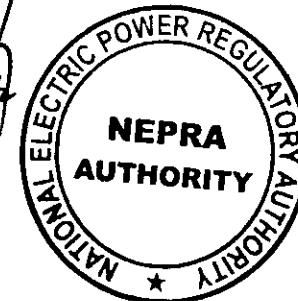
  
(Khalid Saeed)  
Chairman





**Bestway Power Limited (BPL)**  
**Reference Tariff Table**

Year	Energy Charge (Rs./kWh)				Capacity Charge (Rs./kW/Hour)										Capacity Charge at 60% PF	Tariff	
	Fuel	Variable O&M Foreign	Variable O&M Local	Total	Fixed O&M Local	Fixed O&M Foreign	Cost of Working Capital	Insurance	ROE	ROEDC	Withholding Tax @7.5%	Loan Repayment	Interest Charges	Total	Rs. per kWh	Rs. per kWh	¢ per kWh
1	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.3431	0.8045	1.8503	3.0838	8.3296	13.2742
2	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.3890	0.7586	1.8503	3.0838	8.3296	13.2742
3	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.4410	0.7066	1.8503	3.0838	8.3296	13.2742
4	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.4999	0.6476	1.8503	3.0838	8.3296	13.2742
5	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.5668	0.5808	1.8503	3.0838	8.3296	13.2742
6	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.6426	0.5050	1.8503	3.0838	8.3296	13.2742
7	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.7285	0.4190	1.8503	3.0838	8.3296	13.2742
8	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.8260	0.3216	1.8503	3.0838	8.3296	13.2742
9	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.9364	0.2111	1.8503	3.0838	8.3296	13.2742
10	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	1.0616	0.0859	1.8503	3.0838	8.3296	13.2742
11	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263
12	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263
13	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263
14	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263
15	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263
16	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263
17	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263
18	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263
19	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263
20	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263
21	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263
22	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263
23	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263
24	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263
25	4.7811	0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	-	-	0.7027	1.1712	6.4170	10.2263
Levelized Tariff		0.3666	0.0980	5.2457	0.0508	0.0885	0.0850	0.0978	0.3217	0.0324	0.0266	0.3951	0.3817	1.4796	2.4659	7.7117	12.2895



**Bestway Power Limited (BPL)**  
**Debt Servicing Schedule**

Period	Local Debt					Annual Principal Repayment Rs./kW/ hr.	Annual Interest Rs./kW/ hr.	Annual Debt Servicing Rs./kW/ hr.
	Principal Million Rs.	Repayment Million Rs.	Mark-up Million Rs.	Balance Million Rs.	Debt Service Million Rs.			
1	12,040.60	153.02	383.79	11,887.59	536.81	0.3431	0.8045	1.1476
	11,887.59	157.89	378.92	11,729.69	536.81			
	11,729.69	162.93	373.88	11,566.77	536.81			
	11,566.77	168.12	368.69	11,398.65	536.81			
	12,040.60	641.96	1,505.29	11,398.65	2,147.24			
	11,398.65	173.48	363.33	11,225.17	536.81			
	11,225.17	179.01	357.80	11,046.16	536.81			
2	11,046.16	184.71	352.10	10,861.45	536.81	0.3890	0.7586	1.1476
	10,861.45	190.60	346.21	10,670.84	536.81			
	11,398.65	727.80	1,419.44	10,670.84	2,147.24			
	10,670.84	196.68	340.13	10,474.17	536.81			
	10,474.17	202.95	333.86	10,271.22	536.81			
	10,271.22	209.42	327.40	10,061.81	536.81			
	10,061.81	216.09	320.72	9,845.72	536.81			
3	10,670.84	825.13	1,322.11	9,845.72	2,147.24	0.4410	0.7066	1.1476
	9,845.72	222.98	313.83	9,622.74	536.81			
	9,622.74	230.09	306.72	9,392.65	536.81			
	9,392.65	237.42	299.39	9,155.23	536.81			
	9,155.23	244.99	291.82	8,910.25	536.81			
	9,845.72	935.47	1,211.77	8,910.25	2,147.24			
	8,910.25	252.80	284.01	8,657.45	536.81			
4	8,657.45	260.85	275.96	8,396.59	536.81	0.4999	0.6476	1.1476
	8,396.59	269.17	267.64	8,127.43	536.81			
	8,127.43	277.75	259.06	7,849.68	536.81			
	8,910.25	1,060.57	1,086.67	7,849.68	2,147.24			
	7,849.68	286.60	250.21	7,563.08	536.81			
	7,563.08	295.74	241.07	7,267.34	536.81			
	7,267.34	305.16	231.65	6,962.17	536.81			
5	6,962.17	314.89	221.92	6,647.28	536.81	0.5668	0.5808	1.1476
	7,849.68	1,202.39	944.85	6,647.28	2,147.24			
	6,647.28	324.93	211.88	6,322.35	536.81			
	6,322.35	335.29	201.53	5,987.07	536.81			
	5,987.07	345.97	190.84	5,641.10	536.81			
	5,641.10	357.00	179.81	5,284.10	536.81			
	6,647.28	1,363.19	784.05	5,284.10	2,147.24			
6	5,284.10	368.38	168.43	4,915.72	536.81	0.7285	0.4190	1.1476
	4,915.72	380.12	156.69	4,535.59	536.81			
	4,535.59	392.24	144.57	4,143.36	536.81			
	4,143.36	404.74	132.07	3,738.62	536.81			
	5,284.10	1,545.48	601.76	3,738.62	2,147.24			
	3,738.62	417.64	119.17	3,320.97	536.81			
	3,320.97	430.95	105.86	2,890.02	536.81			
7	2,890.02	444.69	92.12	2,445.33	536.81	0.8260	0.3216	1.1476
	2,445.33	458.87	77.94	1,986.46	536.81			
	3,738.62	1,752.15	395.09	1,986.46	2,147.24			
	1,986.46	473.49	63.32	1,512.97	536.81			
	1,512.97	488.58	48.23	1,024.39	536.81			
	1,024.39	504.16	32.65	520.23	536.81			
	520.23	520.23	16.58	0.00	536.81			
8	1,986.46	1,986.46	160.78	0.00	2,147.24	1.0616	0.0859	1.1476

