



National Electric Power Regulatory Authority

Islamic Republic of Pakistan

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Registrar

No. NEPRA/TRF-124/OPCL-2009/274-276

January 12, 2012

Subject: **Decision of the Authority in the matter of Motion for Leave for Review filed by Orient Power Company (Pvt.) Ltd. Pursuant to Rule 16(6) of NEPRA (Tariff Standards and Procedure) Rules, 1998 against the Decision of the Authority regarding Adjustments in Generation Tariff at Commercial Operation Date in Case No. NEPRA/TRF-124/OPCL-2009(2) - Intimation of Decision of Tariff pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997)**

Dear Sir,

Reference is made to this office letter No. NEPRA/R/TRF-124/OPCL-2009/2663-2665 dated April 13, 2011 whereby decision of the Authority in the matter of Adjustments in Generation Tariff of Orient Power Company (Pvt.) Ltd. at Commercial Operation Date was sent. Please find enclosed herewith the decision of the Authority along with Annexes-I & II (12 pages) in the matter of Motion for Leave for Review filed by Orient Power Company (Pvt.) Ltd. against above referred decision of the Authority in Case No. NEPRA/TRF-124/OPCL-2009.

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

3. Please be informed that the Reference Tariff earlier intimated vide para 13 of the Authority's decision dated April 13, 2011, stands revised to the extent as detailed in para 10 of the decision of the Authority on the subject motion along with Annexes-I, & II enclosed herewith. Please note that Order of the Authority at para 10 along with Annex-I & II is required to be notified in the official Gazette.

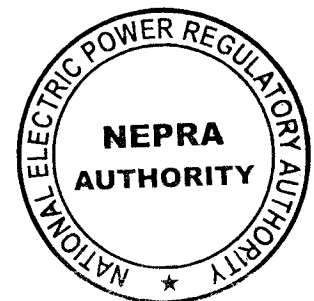
Enclosure: As above

(Syed Safeer Hussain)

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

CC:

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





**DECISION OF THE AUTHORITY IN THE MATTER OF MOTION FOR LEAVE FOR REVIEW
FILED BY ORIENT POWER COMPANY LIMITED (OPCL) PURSUANT TO RULE 16(6) OF NEPRA
(TARIFF STANDARDS AND PROCEDURE) RULES, 1998 AGAINST THE DECISION OF THE
AUTHORITY REGARDING ADJUSTMENTS IN GENERATION TARIFF AT COMMERCIAL
OPERATION DATE IN CASE NO. NEPRA/TRF 124/OPCL-2009(2)**

1. Introduction

- 1.1 Orient Power Company Limited (OPCL), (hereinafter referred as "Petitioner") is a generation licensee of National Electric Power Regulatory Authority, (hereinafter referred as the "Authority"). A decision of adjustments in generation tariff of the petitioner at Commercial Operation Date (COD) was given by the Authority on April 13, 2011. Being aggrieved with said decision, the Petitioner filed a motion for leave for review on April 25, 2011 under Rule 16(6) of NEPRA (Tariff Standards and Procedure) Rules, 1998 (hereinafter referred as the "Rules").
- 1.2 In the motion for leave for review, the petitioner sought review of the decision dated April 13, 2011 to the extent of following items:-
- Increase in EPC cost
 - IDC to be allowed at actual post Required Commercial Operations Date ("RCOD")
 - Non EPC items ONLY to the extent of exchange rate movement; and
 - Variances in terms of Variable O&M costs on liquid fuel, and the timing of applicability of the change in output correction to the extent not clarified separately

2. Proceedings

- 2.1 As per Rule 16(6) of NEPRA (Tariff Standards and Procedure) Rules 1998, read with regulation 3(2) of the NEPRA (Review Procedure) Regulations, 2009, a motion for leave for review is competent only upon discovery of new and important matter of evidence or on account of some mistake or error apparent on the face of record. Thus in order to examine the maintainability or otherwise of the motion for leave for review, the Authority considered it just and appropriate to provide an opportunity of hearing to the parties in terms of rule 16(7) of the Rules. The hearing into the matter was conducted on June 22, 2011 at NEPRA main office and the same was attended by the representatives of the Petitioner as well as Private Power Infrastructure Board (PPIB) and Central Power Purchasing Agency (CPPA).
- 2.2 Having heard the contentions raised during the course of hearing and after going through the relevant record, the findings of the Authority on respective points agitated by the Petitioner are as under:-

3. EPC cost increase

- 3.1 The Petitioner claimed US\$ 168.456 million (Rs. 11,786 million) on account of EPC Cost as against the determined US\$ 147.79 million (Rs. 10,342.001 million) at para 3.7 of the decision dated April 13, 2011.



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- 3.2 ~~The Petitioner~~ The Petitioner's case was considered, all the matters relevant in this regard were addressed in detail in Para 3.4 of the said determination
- 3.3 Having considered the Petitioner's arguments, the Authority is of the view that all the arguments raised by OPCL are outside the scope set in the original determination of the Authority and there is no mechanism available in the said determination to allow adjustment on account of increase in EPC cost. In addition, despite lengthy arguments on the respective point, the Petitioner has failed to produce any evidence which was not considered at the time of giving impugned decision; therefore, the Authority has decided to maintain its earlier decision on the subject.

4. Interest during Construction

- 4.1 The Petitioner claimed Rs. 3,286.835 or US\$ 42.829 million on account of Interest During Construction, excluding interest on custom duties, based on construction period of about 40 months up to May 24, 2010 (actual date of COD). The Authority vide its decision dated April 13, 2011 assessed IDC at Rs. 1,752.771 million at Para 5.7 of the determination after adjusting the proportionate interest income amounting to Rs.45.856 million.
- 4.2 In view of the aforesaid decision in identical cases, and giving consideration to the fact that no new or important matter of evidence has been produced by the Petitioner, the Authority is of the view that the request of the Petitioner on this issue does not merit consideration and therefore the Authority has decided to maintain its earlier decision on the subject.

5. Non-EPC

- 5.1 The Petitioner claimed US\$ 21.701 million or Rs. 1,509.550 million on account of project development, construction management, withholding taxes, insurance during construction, pre-operating O&M and un-recovered fuel, spare parts and financial financing fee and charges. OPCL, however, in support of its claim provided the details of Non-EPC cost incurred US\$ 33.88 million thus claiming cost overruns of US\$ 11.18 million. The Authority has assessed US\$ 22.61 million (1,419.128 million) under individual heads vide its decision dated April 13, 2011.
- 5.2 It was explained on behalf of the Petitioner that in addition to not considering any cost increase in Non EPC, the Authority further took the position that the approved Non EPC cost of US\$ 22.70 million did not attract foreign exchange indexation but in order to be consistent with other projects, only demonstrable exchange movement had to be allowed. The Petitioner stated that it disagreed that the original determination did not allow indexation and the costs were to be converted at the exchange rate of Rs. 60 only. The Petitioner argued that if that had been the case, the formula utilized had no need to specify the EPC or Non-EPC cost in USD and then applied a reference exchange rate. It made absolutely no sense to use a non-EPC number in US\$, and applied a reference exchange rate to it, if it were not to attract exchange rate, when the final product was in PKR. OPCL requested the Authority to allow exchange rate movement to the extent it could demonstrate that such payments were made in foreign currency up to the full approved amount of US\$ 22.70 million. In essence, the disallowed increase of US\$ 11.8 million would be the PKR component and not foreign exchange component. Otherwise, the Petitioner believed that it would receive a double hit of not only the disallowance of increase in cost,



but also disallowance of exchange rate movement on the costs actually having been approved before.

- 5.3 The Authority has carefully reviewed the arguments on this issue and is of the view that while allowing exchange rate movement in Non- EPC cost, consistency has been maintained and the same principle has been adopted in the instant case as was adopted in the cases of other new IPPs whereby foreign currency payments were converted on the exchange rates prevailing on the dates of actual payments, whereas, local payments were converted at reference exchange rate of Rs. 60 per US\$. The decision earlier passed by the Authority has already been based on that very premise.
- 5.4 The Petitioner submitted some evidence of payments in foreign currency relevant to Non EPC cost when the decision of the Authority dated April 13, 2011 had been in circulation for signature. The same, therefore, could not be considered at that time due to close of evidence. The Authority has now considered the Petitioner's claim against exchange rate variation for construction management, pre operating O & M and un-recovered fuel and after verification of the information for allowance of exchange rate parity, the rupee amount of the respective heads has been adjusted keeping same however the dollar amount.

6. Overall Project Cost

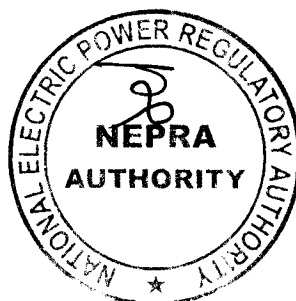
At the time of COD adjustment, OPCL claimed a total project cost of US\$ 217.221 million (PKR 15,565.458 million) against the originally determined project cost of US\$ 178.791 million (PKR 10,727.400 million). Based on the evidence produced by OPCL, the Authority determined overall project cost of PKR13,513.901 million (US\$ 198.548 million).

Subsequent to adjustments allowed in the preceding paragraphs, OPCL's overall project cost has been revised from PKR 13,513.901 million to PKR 13,559.883 million. The overall project cost in terms of dollars will, however, remain the same i.e US\$ 198.548 million.

7. Net Output

- 7.1 The Petitioner has submitted that in the original determination, there is no adjustment for unit rate of tariff for tested capacity. If the tested capacity comes out to be higher than the contract capacity, the PPA has stipulated liquidated damages. If the output comes out higher, there is no adjustment of the unit rate, unlike later determinations. In essence, the project is not allowed to sell anything higher than the contracted capacity as per PPA which puts an upper limit of the company's declaration of daily capacity to the contract capacity. The Petitioner agitated that in the impugned decision; NEPRA has reduced the tariff by 1.77% on the pretext that the output is higher at 212.74 MW instead of 209 MW and has directed the power purchaser to amend the PPA to match others. The Petitioner stated that although the company is prepared to accept the change but such a change cannot be implemented retroactively and thus requested the Authority to consider it accordingly.
- 7.2 The Authority has carefully considered the arguments and is of the view that the point raised herein stood already addressed in para 2.2 of the decision of the Authority dated April 13, 2011. The relevant extract is reproduced as under:

"In order to make OPCL's PPA consistent with the PPAs of other similar projects, the Power Purchaser needs to amend the PPA accordingly. In view thereof NTDC and OPCL are hereby directed to amend the PPA thus making it consistent and comparable with the PPAs of other IPPs"



7.3 In view of the foregoing, the Authority considers that the Petitioner's request with respect to applicability of the change in PPA is valid and therefore accepted thereby allowing the application of revised capacity w.e.f the notification of the COD order for the period from COD to the decision of the Authority with a correction factor of 209/212.7. The working capital component has also been adjusted due to revised output capacity.

8 Higher O & M during operations on liquid fuel

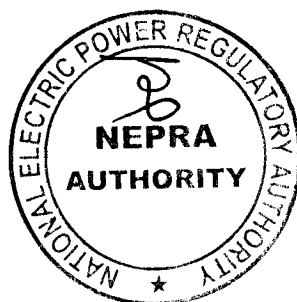
8.1 The Petitioner reiterated the request for higher cost of O&M during operations on liquid fuel as also submitted vide earlier submissions. The Petitioner referred the vendor documents showing higher O&M cost with a multiplier ranging from 1.5x to 2.0x during operation on liquid fuel. This has resulted in increase of Fired Factored Hours in the case of HSD operation by a multiplier of 1.5x, as already evidenced by the O&M contract submitted to the Authority as a part of the True up process. OPCL stated that although, the Authority has denied this; the later projects were, however, granted this increase.

8.2 The Authority has carefully considered the arguments of the Petitioner and is of the view that arguments raised are reasonable and based on the principle of equity and justice and considering the peculiar circumstances of the case and to avoid discrimination between the IPPs, the Petitioner's request to this extent is acceded to and O & M during operations on HSD being the average of three similar IPPs has been allowed.

9. Conclusion

9.1 The Authority has considered the respective contentions raised by the Petitioner seeking review of the Authority's decision in terms of the regulation 3(2) of the NEPRA (Review Procedure) Regulations 2009 read with rule 16(6) of the Rules. The perusal of the decision sought to be reviewed indicates that all material facts and representations made were examined in detail based on the evidence put forth before the Authority. Now the petitioner has presented some additional evidence. Based on the additional new evidence, the Authority has reviewed its decision to the extent of exchange rate movement in Non EPC cost, change in working capital component and increase in O & M cost during operation on HSD based on average of three similar IPPs. The issue of applicability of Net Output established at the time of COD to the relevant tariff components has also been clarified. In view thereof, the Authority has modified its earlier decision to this extent.

9.2 From what has been discussed above, the Authority is of the considered view that the grounds agitated in the motion for leave for review pertaining to increase in EPC cost and IDC to be allowed at actual post Required Commercial Operations Date are not sufficient enough justifying the modification of the impugned determination, hence the motion for leave for review is declined to this extent.



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10 REVISED ORDER

Pursuant to Rule 16 (11) of the NEPRA Tariff Standards & Procedures Rules, 1998 Orient Power Company Limited (OPCL) 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 OPCL at the time of Commercial Operations Date (COD), the following tariff for delivery of electricity:

REFERENCE TARIFF

Tariff Components	Year 1 to 10	Year 11 to 30	Indexation
Capacity Charge (PKR/kW/Hour)			
Fixed O&M - Foreign	0.1065	0.1065	US\$/PKR & US CPI
- Local	0.0885	0.0885	WPI
Insurance	0.0400	0.0400	US\$/PKR
Cost of working capital - Gas	0.0473	0.0473	KIBOR
- HSD	0.1013	0.1013	KIBOR
Debt service	1.0298	-	KIBOR
Return on equity	0.3964	0.3964	US\$/PKR
Return on equity during Construction	0.0795	0.0795	US\$/PKR
Total Capacity Charge - Gas	1.7880	0.7582	
- HSD	1.8420	0.8122	
Energy Charge Rs./kWh			
For Operation on Gas			
Fuel cost component	2.4538	2.4538	Fuel price
Variable O&M - Foreign	0.1459	0.1459	US\$/PKR & US CPI
For Operation on HSD			
Fuel cost component	14.6999	14.6999	Fuel price
Variable O&M - Foreign	0.2392	0.2392	US\$/PKR & US CPI

Note:

- Capacity Charge Rs./kW/hour is applicable to dependable capacity at the delivery point.
- Dispatch criterion will be the Energy Charge.
- The above tariff is applicable for a period of 30 years commencing from the date of the Commercial Operations.
- Component wise tariff is indicated at Annex-I and Debt Service Schedule at Annex-II.



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I) Adjustment in Insurance Component

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

$$\text{Insurance Component (Revised)} = \text{Rs. } 0.0400 \text{ per kW per hour} / (\text{Rs. } 74,544,969) \times \text{AP}$$

Where;

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

II) Pass-Through Items

No provision for income tax has been accounted for in the tariff. If OPCL is obligated to pay any tax on its income, the exact amount paid by the company shall be reimbursed by NTDC to OPCL 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, OPCL shall also submit to NTDC details of any tax shield savings and NTDC shall deduct the amount of these savings from its payment to OPCL on account of taxation.

Withholding tax is also a pass-through item just like other taxes as indicated in the government guidelines for the determination of tariff for new IPPs. In revised tariff table withholding tax number is indicated as reference and 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% of reference equity i.e. hourly payment (Rs./kW/hour) spread over 12 months.

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) Indexation applicable to O&M

In future fixed O&M part of capacity charge will be adjusted on account of local inflation (WPI) and variation in US CPI and dollar/rupee exchange rate parity. 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 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:



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i) **Fixed O&M**

$$F O\&M_{(LREV)} = \text{Rs. } 0.0885 \text{ per kW per hour} * WPI_{(REV)} / 138.81$$

$$F O\&M_{(FREX)} = \text{Rs. } 0.1065 \text{ per kW per hour} * US CPI_{(REV)} / 212.709 * ER_{(REV)} / \text{Rs. } 80.50$$

Where;

$F O\&M_{(LREV)}$ = The revised applicable fixed O&M local component of the capacity charge indexed with WPI

$F O\&M_{(FREX)}$ = The revised applicable fixed O&M foreign component of the capacity charge indexed with US CPI and exchange rate variations

$WPI_{(REV)}$ = The revised wholesale price index (manufacturers)

$WPI_{(REF)}$ = 138.81 wholesale price index (manufacturers) of March 2009 notified by the Federal Bureau of Statistics

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

$US CPI_{(REF)}$ = 212.709 US CPI (all urban consumers) for the month of March 2009 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

ii) **Variable O&M**

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

For operation on Gas

$$V O\&M_{(REV)} = \text{Rs. } 0.1459 \text{ per kWh} * US CPI_{(REV)} / 212.709 * ER_{(REV)} / \text{Rs. } 80.50$$

For operation on HSD

$$V O\&M_{(REV)} = \text{Rs. } 0.2392 \text{ per kWh} * US CPI_{(REV)} / 212.709 * ER_{(REV)} / \text{Rs. } 80.50$$

Where;

$V O\&M_{(REV)}$ = The revised applicable variable O&M component of the energy charge indexed with US CPI and exchange rate variation.

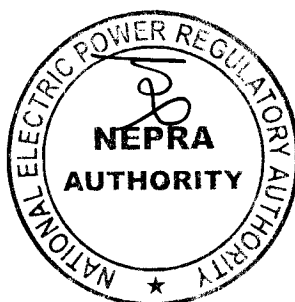
$US CPI_{(REV)}$ = The revised US CPI (all urban consumers)

$US CPI_{(REF)}$ = 212.709 US CPI (all urban consumers) for the month of March 2009 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

b) **Adjustment for KIBOR variation**

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



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$$\Delta I_{(L)} = P_{(LREV)} * (KIBOR_{(REV)} - 13.39\%) / 4$$

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 < 13.39%. 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.

c) **Fuel Price Variation**

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

$$FCg_{(Rev)} = Rs. 2.4538 \text{ per kWh} * FPg_{(Rev)} / Rs. 368.11 \text{ per MMBTU}$$

Where;

$FCg_{(Rev)}$ = Revised fuel cost component of variable charge on Gas

$FPg_{(Rev)}$ = The new price of gas as notified by the relevant authority per MMBTUs of fuel adjusted for LHV-HHV factor

$$FCd_{(Rev)} = Rs. 9.9456 \text{ per kWh} * Fpd_{(Rev)} / Rs. 48.023 \text{ per Litre excluding GST}$$

Where;

$FCd_{(Rev)}$ = Revised fuel cost component of variable charge on HSD

$Fpd_{(Rev)}$ = The new price of HSD/Litre (exclusive of GST) as notified by the relevant authority

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

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

$$ROE_{(Rev)} = Rs. 0.3964 \text{ per kW per hour} * ER_{(Rev)} / ER_{(Ref)}$$

Where;

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

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



$ER_{(Ref)}$ = The reference exchange rate of PKR 80.50 = 1 US\$.

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

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

$ROEDC_{(Rev)}$ = Rs.0.0795 per kW per hour * $ER_{(Rev)} / ER_{(Ref)}$

Where;

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

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

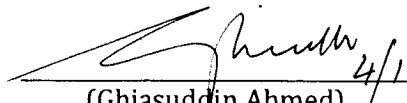
$ER_{(Ref)}$ = The reference exchanges rate of PKR 80.50= 1 US\$.


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

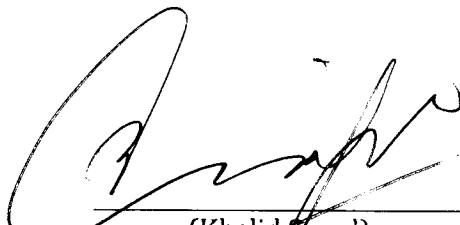
IV) **Terms and Conditions of Tariff:**

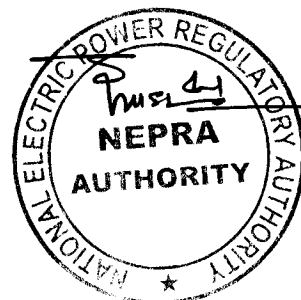
- i) Use of Gas will be considered as primary fuel.
- ii) Dispatch criterion will be based on the energy charge.
- iii) General assumptions of OPCL, which are not covered in this and earlier determinations, may be dealt with in the PPA according to its standard terms.

AUTHORITY


(Ghiasuddin Ahmed)
Member


(Maqbool Ahmad Khawaja)
Vice Chairman/Member


(Khalid Saeed)
Chairman



Orient Power Company Ltd.
Modified Tariff (GAS)

Year	Variable Charge (PKR/kWh)			Capacity Charge (PKR/kW/Hour)									
	Fuel	Variable O&M	Total	Fixed O&M (Foreign)	Fixed O&M (Local)	Insurance	Working Capital Component	Return on Equity (ROE)	Return on Equity during Construction (ROEDC)	Withholding Tax	Loan Repayment	Interest Charges	Total Capacity Charge
1	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	0.2196	0.8101	1.8235
2	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	0.2579	0.7718	1.8235
3	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	0.3029	0.7269	1.8235
4	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	0.3556	0.6741	1.8235
5	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	0.4176	0.6122	1.8235
6	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	0.4904	0.5394	1.8235
7	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	0.5758	0.4539	1.8235
8	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	0.6762	0.3536	1.8235
9	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	0.7940	0.2358	1.8235
10	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	0.9323	0.0974	1.8235
11	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
12	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
13	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
14	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
15	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
16	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
17	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
18	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
19	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
20	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
21	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
22	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
23	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
24	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
25	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
26	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
27	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
28	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
29	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
30	2.4538	0.1459	2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	-	-	0.7938
Levelized Tariff (1-30 Years)			2.5997	0.1065	0.0885	0.0400	0.0473	0.3964	0.0795	0.0357	0.2892	0.3820	1.4650

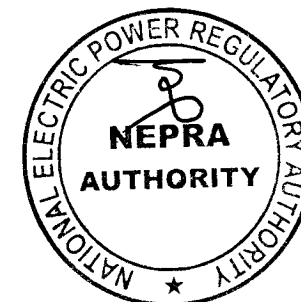
Net Capacity 212.70 MW
 Reference Exchange Rate (PKR/US\$) 80.5000
 Reference Fuel Price (Gas) LHV 368.11 per MMCFT
 Reference US CPI 212.7090 March 2009
 Reference WPI (manufacturers) 138.8100 March 2009
 KIBOR 13.39%
 Net Efficiency 51.20%
 Levelized Tariff (at 60% plant factor) Rs. per kWh 5.0413 (US cents/kWh) 6.2625



Orient Power Company Ltd.
Modified Tariff (HSD)

Year	Variable Charge PKR/kWh			Capacity Charge (PKR/kW/Hour)									Total Tariff
	Fuel	Variable O&M	Total	Fixed O&M (Foreign)	Fixed O&M (Local)	Insurance	Working Capital Component	Return on Equity (ROE)	Return on Equity during Construction (ROEDC)	Withholding Tax	Loan Repayment	Interest Charges	
1	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	0.2196	0.8101	1.8776
2	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	0.2579	0.7718	1.8776
3	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	0.3029	0.7269	1.8776
4	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	0.3556	0.6741	1.8776
5	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	0.4176	0.6122	1.8776
6	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	0.4904	0.5394	1.8776
7	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	0.5758	0.4539	1.8776
8	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	0.6762	0.3536	1.8776
9	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	0.7940	0.2358	1.8776
10	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	0.9323	0.0974	1.8776
11	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
12	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
13	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
14	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
15	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
16	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
17	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
18	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
19	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
20	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
21	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
22	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
23	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
24	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
25	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
26	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
27	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
28	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
29	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
30	14.6999	0.2392	14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	-	-	0.8478
Levelized Tariff (1-30 Years)			14.9391	0.1065	0.0885	0.0400	0.1013	0.3964	0.0795	0.0357	0.2892	0.3820	1.5190

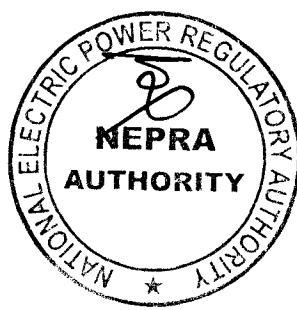
Net Capacity	212.70	MW
Reference Exchange Rate (PKR/US\$)	80.5000	
Reference Fuel Price (HSD) per litre	70.9900	
Reference US CPI	212.7090	March 2009
Reference WPI (manufacturers)	138.8100	March 2009
KIBOR	13.39%	
Net Efficiency	51.20%	
Levelized Tariff (at 60% plant factor) Rs. per kWh	17.4708	(US cents/kWh) 21.7028



RMA

Orinent Power Company Limited
Debt Repayment Schedule

Year	Quarter	Principal Amount Million Rs.	Repayment Million Rs.	Mark Up Million Rs.	Debt Service Million Rs.	Principal Amount Million Rs.	Annual Principal Repayment Rs/Kw/hr	Annual Interest Rs/kW/hr	Annual Debt Serving Rs/kW/hr
1	1	9,358	96	383	480	9,262			
	2	9,262	100	380	480	9,162			
	3	9,162	104	375	480	9,057			
	4	9,057	109	371	480	8,949	0.2196	0.8101	1.0298
2	5	8,949	113	367	480	8,836			
	6	8,836	118	362	480	8,718			
	7	8,718	122	357	480	8,596			
	8	8,596	127	352	480	8,468	0.2579	0.7718	1.0298
3	9	8,468	133	347	480	8,335			
	10	8,335	138	342	480	8,197			
	11	8,197	144	336	480	8,054			
	12	8,054	150	330	480	7,904	0.3029	0.7269	1.0298
4	13	7,904	156	324	480	7,748			
	14	7,748	162	317	480	7,586			
	15	7,586	169	311	480	7,417			
	16	7,417	176	304	480	7,241	0.3556	0.6741	1.0298
5	17	7,241	183	297	480	7,058			
	18	7,058	190	289	480	6,868			
	19	6,868	198	281	480	6,669			
	20	6,669	206	273	480	6,463	0.4176	0.6122	1.0298
6	21	6,463	215	265	480	6,248			
	22	6,248	224	256	480	6,025			
	23	6,025	233	247	480	5,792			
	24	5,792	242	237	480	5,549	0.4904	0.5394	1.0298
7	25	5,549	252	227	480	5,297			
	26	5,297	263	217	480	5,034			
	27	5,034	273	206	480	4,761			
	28	4,761	285	195	480	4,476	0.5758	0.4539	1.0298
8	29	4,476	296	183	480	4,180			
	30	4,180	308	171	480	3,872			
	31	3,872	321	159	480	3,551			
	32	3,551	334	145	480	3,217	0.6762	0.3536	1.0298
9	33	3,217	348	132	480	2,869			
	34	2,869	362	118	480	2,507			
	35	2,507	377	103	480	2,130			
	36	2,130	392	87	480	1,737	0.7940	0.2358	1.0298
10	37	1,737	408	71	480	1,329			
	38	1,329	425	54	480	903			
	39	903	443	37	480	461			
	40	461	461	19	480	(0)	0.9323	0.0974	1.0298



RMAJ