



Registrar

National Electric Power Regulatory Authority

Islamic Republic of Pakistan

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E-mail: office@nepra.org.pk

No. NEPRA/R/TRF-50/SECL-2006/ 6391-93

10.08. 2006

Subject: **Corrigendum/Addendum - Decision in respect of Motion for Leave for Review filed under Rule 16(6) of Tariff Rules on 26 June, 2006 by Sapphire Electric Company Ltd. (SECL) (Case No. NEPRA/TRF-50/SECL-2006)**

Dear Sir,

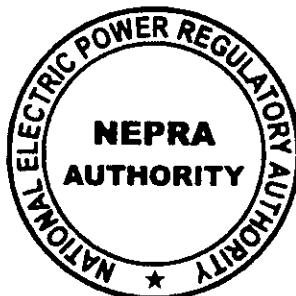
In continuation of this office letter No. NEPRA/R/TRF-50/SECL-2006/6261-63 dated August 3, 2006 whereby decision of the Authority in respect of Motion for Leave for Review filed by Sapphire Electric Company Ltd. was communicated, enclosed please find herewith following as corrigendum / addendum:

- Revised page 9 to be replaced with the page 9 sent vide Authority decision dated August 3, 2006.
- Add Debt Service Schedule.

2. Please note that only revised order of the Authority at para 18 of the decision relating to the reference tariff and allowed adjustments and indexation (07 pages) along with annex-I, II and Debt Service Schedule (03 pages) needs to be notified in the official Gazette. The revised order is reproduced for the purpose of clarity and is attached herewith.

DA/As above.

The Secretary
Cabinet Division
Government of Pakistan
Cabinet Secretariat
Islamabad



(Signature)
10.08.06
(Mahjoob Ahmad Mirza)

CC:

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

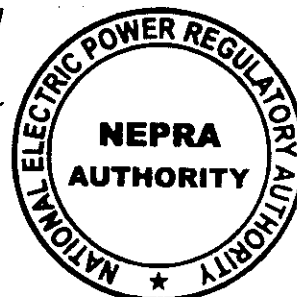
ORDER OF THE AUTHORITY
IN CASE NO. NEPA/TRF-50/SECL-2006
TO BE NOTIFIED IN THE OFFICIAL GAZETTE

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

Reference Tariff

Tariff Components	Year 1 to 10	Year 11 to 30	Indexation
Capacity Charge (PKR/kW/Hour)			
O&M Foreign	0.0652	0.0652	US\$ to Rupee
O&M Local	0.0434	0.0434	WPI
Cost of Working Capital *	0.0163	0.0163	KIBOR
Insurance	0.0637	0.0637	US\$ to Rupee
Debt Service	0.7892	-	KIBOR
Return on Equity	0.2280	0.2280	US\$ to Rupee
ROE during Construction	0.0208	0.0208	US\$ to Rupee
Total Capacity Charge	1.2266	0.4374	
* In case of plant operation on HSD cost of working capital shall be paid on 15 days inventory level basis which is Rs. 0.03479 Rs./kW/hour.			
A) Energy Charge on Operation on Gas Rs./kWh			
Fuel Cost Component	1.7787	1.7787	Fuel Price
Variable O&M	0.1746	0.1746	\$ to Rupee
B) Energy Charge on Operation on HSD Rs./kWh			
Fuel Cost Component	6.7152	6.7152	Fuel Price
Variable O&M	0.2520	0.2520	\$ to Rupee

- Note: i) Capacity Charge Rs./kW/hour applicable to dependable capacity at the delivery point.
- ii) Dispatch criterion will be Energy Charge.
- iii) The above tariff is applicable for a period of 30 years commencing from the date of the Commercial Operation.
- iv) Component wise tariff for operation on Gas and HSD is indicated at Annex-I & II.



The following indexations shall be applicable to reference tariff;

One Time Adjustment

- a) Adjustment due to variation in net capacity
The reference tariff has been determined on the basis of minimum net capacity of 209 MW at delivery point at mean site conditions. All the tariff components except fuel cost component shall be adjusted at the time of COD based upon the IDC tests to be carried out for determination of contracted capacity for operation on both fuels i.e. Gas & HSD. If the IDC is established higher than 209 MW, the adjustments shall be made according to the following formula:

i) Revised Fixed O&M Foreign	=	0.0652 / tested IDC x 209
ii) Revised Fixed O&M Local	=	0.0434 / tested IDC x 209
iii) Cost of Working Capital	=	0.0163 / tested IDC x 209
iii) Insurance	=	0.0637 / tested IDC x 209
iv) Debt Service	=	0.7892 / tested IDC x 209
v) Return on Equity	=	0.2280 / tested IDC x 209
vi) ROE during Construction	=	0.0208 / tested IDC x 209
vii) Variable O&M	=	0.1528 / tested IDC x 209

- b) Adjustment in Insurance Component

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 SECL according to the following formula;

$$\text{Insurance (Revised)} = \text{AIC} / \$1.943 \text{ million} \times \text{AP}$$

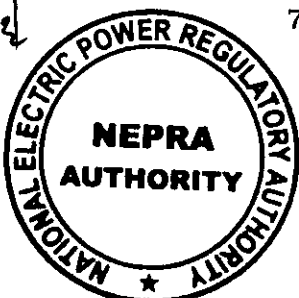
Where;

AIC = Adjusted Insurance Component as per IDC Test

AP = Actual Premium

- c) Adjustment due to customs duties and Interest during Construction

Debt Service, Return on Equity and ROE during construction shall be adjusted at COD on account of actual variation in customs duties, drawdown and Interest During Construction with reference to the estimated figures of USD 5.037 million and USD 14.358 million respectively. SECL shall submit the relevant documents to NEPA within 7 days of COD for adjustment of relevant tariff components.



d) Adjustment in project cost due to variation in Dollar/Rupee parity

Any variation in project cost during construction period on account of variation in dollar/Rupee parity shall be allowed through adjustment in the project cost. For the purpose of this adjustment petitioner shall provide payment schedule along with the exchange rate prevalent on the date of particular transaction. SECL's final reference tariff table shall be revised on COD to incorporate all the permissible adjustment during construction period.

Pass-Through Items

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

Withholding tax is also a pass through item just like other taxes as indicated in the government guidelines for determination of tariff for new IPPs. Withholding tax shall be paid @15% of the reference equity. CPPA (NTDC) shall make payment on account of withholding tax at the time of actual payment of dividend subject to maximum of 7.5% of 15% equity according to the following formula:

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

Where:

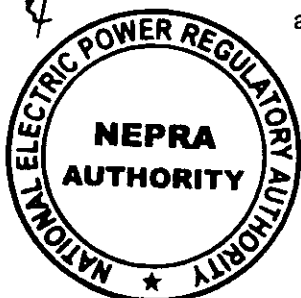
$E(\text{Ref})$ = Reference Equity (US\$46.388 million x 60)

$E(\text{Red})$ = Equity Redeemed

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

Note: In case of foreign equity withholding tax calculated according to the above formula shall be adjusted for variation in currency (US\$ to Rupee).

In case Company does not declare a dividend in a particular year or only declares a partial dividend, then the difference in the withholding tax amount (between what is paid in that year and the total entitlement as



per the Net Return on Equity) would be carried forward and accumulated so that the Company is able to recover the same as a pass through from the Power Purchaser in future on the basis of the total dividend pay out.

Indexations:

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

Indexation applicable to O&M

The 40% of Fixed O&M part of Capacity Charge will be adjusted on account of Inflation (WPI) and 60% on account of variation in dollar/Rupee exchange rate. WPI adjustment for inflation will be made on quarterly basis, on the basis of WPI as notified by the Federal Bureau of Statistics (FBS) for the month of August, November, February & May respectively. Indexation for variation in dollar/rupee exchange rate will be made on October 1, January 1, April 1 & July 1 on the basis of revised TT & OD selling rate of US Dollar as notified by the National Bank of Pakistan. The mode of indexation will be as under:

(a) **Fixed O&M**

$$F O\&M(RWPI) = \text{Rs.} 0.0652 \text{ per kW per Hour} * WPI (REV) / 117.80$$

$$F O\&M(RE) = \text{Rs.} 0.0434 \text{ per kW per Hour} * ER(REV) / 60$$

Where:

F O&M(RWPI) = The revised applicable Fixed O&M Component of the Capacity Charge indexed with WPI

F O&M (RE) = The revised applicable Fixed O&M Component of the Capacity Charge indexed with Currency fluctuation

WPI(REV) = the Revised Wholesale Price Index (manufactures)

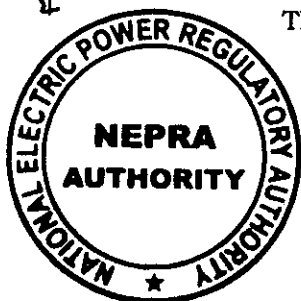
Reference WPI = 117.80 Wholesale Price Index (manufactures) of April 2006 notified by Federal Bureau of Statistics

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.

(b) **Variable O&M**

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



$$V O\&MG (RE) = Rs.0.1746 \text{ per kWh} * ER(REV) / Rs.60 \text{ per \$}$$

$$V O\&MG (RE) = Rs.0.2520 \text{ per kWh} * ER(REV) / Rs.60 \text{ per \$}$$

Where:

$V O\&MG(REV)$ = The revised applicable Variable O&M Component of Energy Charge indexed with currency fluctuation.

$ER (REV)$ = the Revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan

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

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;

$$\Delta I = P(REV) * (KIBOR(REV) - 9.0\%) / 4$$

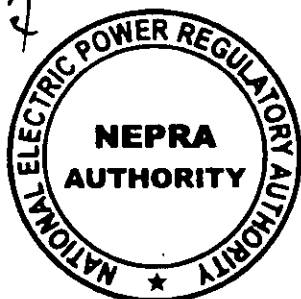
Where:

ΔI = the variation in interest charges applicable corresponding to variation in KIBOR. ΔI can be positive or negative depending upon whether KIBOR $REV >$ or $< 9.0\%$. The interest payment obligation will be enhanced or reduced to the extent of ΔI 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 1st installment is due after availing the grace period.

Fuel Price Variation

The Variable Charge part of the tariff relating to fuel cost shall be adjusted on account of the fuel price variations as and when notified by the relevant authority, which in the instant case is the Oil & Gas Regulatory



Authority. In this regard, the variation in SECL's allowed rate relating to fuel cost shall be revised according to the following formula:

$$FCg(\text{Rev}) = \text{Rs.1.7787 per kWh} * FPg(\text{Rev})/\text{Rs. 266.83 per MMBTU}$$

Where:

$$FCg(\text{Rev}) = \text{Revised fuel cost component of Variable Charge on gas}$$

$$FPg(\text{Rev}) = \text{The new price of gas as notified by the relevant Authority per MMBTU of fuel adjusted for LHV-HHV factor.}$$

$$FCd(\text{Rev}) = \text{Rs. 6.7153 per kWh} * [FPd(\text{Rev})\text{Rs.per MMBTUs}]/\text{Rs.954.27 per MMBTU (Excl-GST)}$$

Where:

$$FCd(\text{Rev}) = \text{Revised fuel cost component of Variable Charge on diesel}$$

$$FPd(\text{Rev}) = \text{The new price of diesel as notified by the relevant Authority per Litre of fuel adjusted for LHV-HHV factor.}$$

Reference values used in the calculations:

HSD Fuel price with GST (HHV) Rs.37.29 per litre

GST 15%

HSD Fuel price without GST (HHV) Rs.32.43 per litre

HHV-LHV Adjustment Factor 1.06

HSD Fuel price without GST (LHV) Rs.34.37 per litre

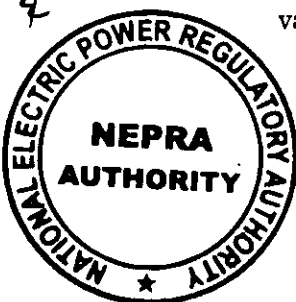
HSD Fuel Price without GST Rs.954.27 per MMBTU*

* Calculated by using the following reference values

Reference Specific Gravity@15 °C or 15.6 °C 0.84

Reference Calorific Value (Gross) 42,880 BTUs/Kg

- ii) In case of adjustment in HSD fuel component, SECL shall submit request for adjustment duly supported with the supplier's certificate indicating flash point, specific gravity and calorific value duly verified by the power purchaser. The Power Purchaser shall make all necessary arrangements to satisfy itself regarding the authenticity and validity of the information provided by SECL. In case of any dispute or discrepancy the power purchaser shall seek third party verification which for technical issues shall be HDIP and for price issues shall be OGRA. SECL shall be allowed immediate adjustment by the Authority within 7 working days of such request with requisite certificates and verifications.
- iii). Adjustment on account of inflation, foreign exchange variation, KIBOR variation and fuel price variation will be approved and announced by the



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

- iv). Any change or modification regarding application of US CPI on foreign component of O&M cost and application of local CPI instead of WPI on local component of O&M cost made through GOP Policy shall also be applicable to SECL. However the change or modification shall be applicable from the date of issue of such Policy and shall not be applicable retrospectively.

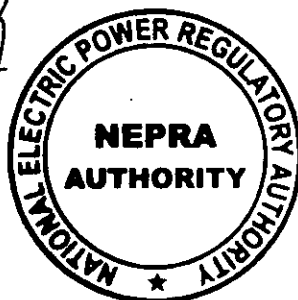
Incentive for Early Commissioning

In case SECL achieves Commercial Operation Date (COD) prior to October 31st, 2008, an incentive equivalent to Rs. 0.1795 per kW per hour shall be paid in addition to the normal capacity payment during the period commencing from COD till October 31st, 2008.

Terms and Conditions of Tariff:

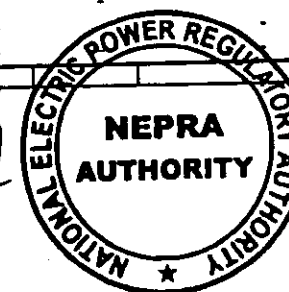
- i) Use of Gas will be considered as primary fuel.
- ii) All new equipment will be installed and the plant will be of standard configuration.
- iii) Dispatch criterion will be based on the Energy Charge.
- iv) Diesel oil will be used only for startups and other contingent requirements. Use of Diesel Oil shall be allowed in accordance with the GOP's fuel policy announced from time to time.
- v) General assumptions of SECL which are not covered in this determination may be dealt with in the PPA according to its standard terms.

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



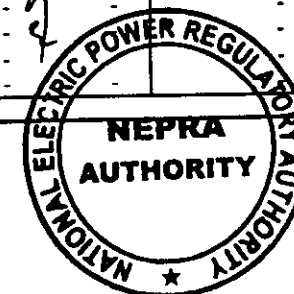
SPECIFIED TARIFF- SAPPHIRE ELECTRIC COMPANY LIMITED
PLANT OPERATION ON GAS

Year	Energy Charge (Rs/kWh)			Capacity Charge Rs/kW per Hour										Total Capacity charge		Total Tariff
	Fuel	Variable O&M	Total	Fixed O&M	Insurance	W.C	ROE DC	ROE	Withholding tax on div	Sub Total	Debt Servicing Foreign	Debt Servicing Local	Total Debt Servicing	Rs/kW/hr	Rs/kW/hr @60% PF	Rs/kWh
1	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	0.7892	0.7892	1.2453	2.0755	4.0288
2	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	0.7892	0.7892	1.2453	2.0755	4.0288
3	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	0.7892	0.7892	1.2453	2.0755	4.0288
4	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	0.7892	0.7892	1.2453	2.0755	4.0288
5	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	0.7892	0.7892	1.2453	2.0755	4.0288
6	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	0.7892	0.7892	1.2453	2.0755	4.0288
7	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	0.7892	0.7892	1.2453	2.0755	4.0288
8	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	0.7892	0.7892	1.2453	2.0755	4.0288
9	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	0.7892	0.7892	1.2453	2.0755	4.0288
10	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
11	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
12	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
13	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
14	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
15	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
16	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
17	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
18	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
19	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
20	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
21	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
22	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
23	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
24	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
25	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
26	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
27	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
28	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
29	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
30	1.7787	0.1746	1.9533	0.1086	0.0637	0.0163	0.0208	0.2280	0.0187	0.4561	-	-	-	0.4561	0.7601	2.7134
Levelised	1.7787	0.1746	1.9533											0.9705	1.6175	3.5708
																5.9513



SPECIFIED TARIFF - SAPPHIRE ELECTRIC COMPANY LIMITED
PLANT OPERATION ON DIESEL

Year	Energy Charge (Rs/kWh)			Capacity Charge Rs/kW per Hour										Total Capacity charge		Total Tariff
	Fuel	Variable O&M	Total	Fixed O&M	Insurance	W.C	ROE DC	ROE	Withholding tax on div	Sub Total	Debt Servicing Foreign	Debt Servicing Foreign	Total Debt Servicing	Rs/kW/Hr	Rs/kWh at 60% LF	Rs/kWh
1	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	0.7892	0.7892	1.2639	2.1065	9.0736
2	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	0.7892	0.7892	1.2639	2.1065	9.0736
3	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	0.7892	0.7892	1.2639	2.1065	9.0736
4	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	0.7892	0.7892	1.2639	2.1065	9.0736
5	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	0.7892	0.7892	1.2639	2.1065	9.0736
6	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	0.7892	0.7892	1.2639	2.1065	9.0736
7	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	0.7892	0.7892	1.2639	2.1065	9.0736
8	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	0.7892	0.7892	1.2639	2.1065	9.0736
9	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	0.7892	0.7892	1.2639	2.1065	9.0736
10	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	0.7892	0.7892	1.2639	2.1065	9.0736
11	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
12	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
13	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
14	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
15	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
16	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
17	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
18	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
19	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
20	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
21	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
22	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
23	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
24	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
25	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
26	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
27	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
28	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
29	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
30	6.7151	0.2520	6.9671	0.1086	0.0637	0.0349	0.0208	0.2280	0.0187	0.4747	-	-	-	0.4747	0.7912	7.7583
Levelised			6.9671											0.9891	1.6485	8.6157
															Cents	14.3594



Sapphire Electric Power Company Limited
Debt Servicing Schedule



Period	Local Debt					Annual Debt Servicing Rs./Kw/Hour
	Principal	Repayment	Mark-Up	Balance	Debt Service	
1st Q	139.16	1.85	4.17	137.32	6.02	
2nd Q	137.32	1.90	4.12	135.42	6.02	
3rd Q	135.42	1.96	4.06	133.46	6.02	
4th Q	133.46	2.02	4.00	131.44	6.02	
1	139.16	7.72	16.36	131.44	24.08	0.7893
1st Q	131.44	2.08	3.94	129.36	6.02	
2nd Q	129.36	2.14	3.88	127.23	6.02	
3rd Q	127.23	2.20	3.82	125.02	6.02	
4th Q	125.02	2.27	3.75	122.75	6.02	
2	131.44	8.69	15.39	122.75	24.08	0.7893
1st Q	122.75	2.34	3.68	120.41	6.02	
2nd Q	120.41	2.41	3.61	118.01	6.02	
3rd Q	118.01	2.48	3.54	115.53	6.02	
4th Q	115.53	2.55	3.47	112.97	6.02	
3	122.75	9.78	14.30	112.97	24.08	0.7893
1st Q	112.97	2.63	3.39	110.34	6.02	
2nd Q	110.34	2.71	3.31	107.63	6.02	
3rd Q	107.63	2.79	3.23	104.84	6.02	
4th Q	104.84	2.88	3.15	101.96	6.02	
4	112.97	11.01	13.07	101.96	24.08	0.7893
1st Q	101.96	2.96	3.06	99.00	6.02	
2nd Q	99.00	3.05	2.97	95.95	6.02	
3rd Q	95.95	3.14	2.88	92.81	6.02	
4th Q	92.81	3.24	2.78	89.57	6.02	
5	101.96	12.39	11.69	89.57	24.08	0.7893
1st Q	89.57	3.33	2.69	86.24	6.02	
2nd Q	86.24	3.43	2.59	82.80	6.02	
3rd Q	82.80	3.54	2.48	79.27	6.02	
4th Q	79.27	3.64	2.38	75.62	6.02	
6	89.57	13.95	10.14	75.62	24.08	0.7893
1st Q	75.62	3.75	2.27	71.87	6.02	
2nd Q	71.87	3.86	2.16	68.01	6.02	
3rd Q	68.01	3.98	2.04	64.03	6.02	
4th Q	64.03	4.10	1.92	59.93	6.02	
7	75.62	15.70	8.39	59.93	24.08	0.7893
1st Q	59.93	4.22	1.80	55.71	6.02	
2nd Q	55.71	4.35	1.67	51.36	6.02	
3rd Q	51.36	4.48	1.54	46.88	6.02	
4th Q	46.88	4.61	1.41	42.26	6.02	
8	59.93	17.67	6.42	42.26	24.08	0.7893
1st Q	42.26	4.75	1.27	37.51	6.02	
2nd Q	37.51	4.90	1.13	32.61	6.02	
3rd Q	32.61	5.04	0.98	27.57	6.02	
4th Q	27.57	5.19	0.83	22.38	6.02	
9	42.26	19.88	4.20	22.38	24.08	0.7893
1st Q	22.38	5.35	0.67	17.03	6.02	
2nd Q	17.03	5.51	0.51	11.52	6.02	
3rd Q	11.52	5.67	0.35	5.85	6.02	
4th Q	5.85	5.85	0.18	(0.00)	6.02	
10	22.38	22.38	1.70	(0.00)	24.08	0.7893
Principal	139.16					
Repayment						
Mark-Up						
Balance						
Debt Service						
Annual Debt Servicing						
Interest						
Principal Repayment						
Annual Debt Servicing						

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% equity according to the following formula:

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

Where:

$E(\text{Ref})$ = Reference Equity (US\$46.388 million x 60)

$E(\text{Red})$ = Equity Redeemed

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

Note: In case of foreign equity withholding tax calculated according to the above formula shall be adjusted for variation in currency (US\$ to Rupee).

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

Indexations:

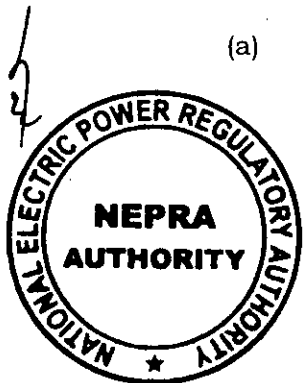
The following indexation shall be applicable to the reference tariff as follows;

Indexation applicable to O&M

The 40% of Fixed O&M part of Capacity Charge will be adjusted on account of Inflation (WPI) and 60% on account of variation in dollar/Rupee exchange rate. WPI adjustment for inflation will be made on quarterly basis, on the basis of WPI as notified by the Federal Bureau of Statistics (FBS) for the month of August, November, February & May respectively. Indexation for variation in dollar/rupee exchange rate will be made on October 1, January 1, April 1 & July 1 on the basis of revised TT & OD selling rate of US Dollar as notified by the National Bank of Pakistan. The mode of indexation will be as under:

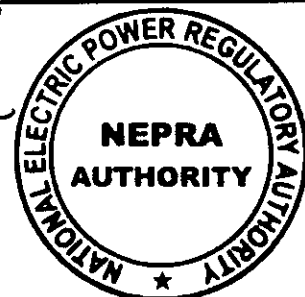
(a) **Fixed O&M**

$$F \text{ O\&M(RWPI)} = \text{Rs.}0.0652 \text{ per kW per Hour} * \text{WPI (REV)}/117.80$$



Sapphire Electric Power Company Limited
Debt Servicing Schedule

Period	Local Debt					Annual Principal Repayment Rs./Kw/Hour	Annual Interest Rs./kW/Hour	Annual Debt Servicing Rs./kW/Hour
	Principal Million \$	Repayment Million \$	Mark-Up Million \$	Balance Million \$	Debt Service Millin \$			
1st Q	139.16	1.85	4.17	137.32	6.02			
2nd Q	137.32	1.90	4.12	135.42	6.02			
3rd Q	135.42	1.96	4.06	133.46	6.02			
4th Q	133.46	2.02	4.00	131.44	6.02			
1	139.16	7.72	16.36	131.44	24.08	0.2531	0.5363	0.7893
1st Q	131.44	2.08	3.94	129.36	6.02			
2nd Q	129.36	2.14	3.88	127.23	6.02			
3rd Q	127.23	2.20	3.82	125.02	6.02			
4th Q	125.02	2.27	3.75	122.75	6.02			
2	131.44	8.69	15.39	122.75	24.08	0.2849	0.5045	0.7893
1st Q	122.75	2.34	3.68	120.41	6.02			
2nd Q	120.41	2.41	3.61	118.01	6.02			
3rd Q	118.01	2.48	3.54	115.53	6.02			
4th Q	115.53	2.55	3.47	112.97	6.02			
3	122.75	9.78	14.30	112.97	24.08	0.3206	0.4687	0.7893
1st Q	112.97	2.63	3.39	110.34	6.02			
2nd Q	110.34	2.71	3.31	107.63	6.02			
3rd Q	107.63	2.79	3.23	104.84	6.02			
4th Q	104.84	2.88	3.15	101.96	6.02			
4	112.97	11.01	13.07	101.96	24.08	0.3608	0.4285	0.7893
1st Q	101.96	2.96	3.06	99.00	6.02			
2nd Q	99.00	3.05	2.97	95.95	6.02			
3rd Q	95.95	3.14	2.88	92.81	6.02			
4th Q	92.81	3.24	2.78	89.57	6.02			
5	101.96	12.39	11.69	89.57	24.08	0.4061	0.3832	0.7893
1st Q	89.57	3.33	2.69	86.24	6.02			
2nd Q	86.24	3.43	2.59	82.80	6.02			
3rd Q	82.80	3.54	2.48	79.27	6.02			
4th Q	79.27	3.64	2.38	75.62	6.02			
6	89.57	13.95	10.14	75.62	24.08	0.4571	0.3322	0.7893
1st Q	75.62	3.75	2.27	71.87	6.02			
2nd Q	71.87	3.86	2.16	68.01	6.02			
3rd Q	68.01	3.98	2.04	64.03	6.02			
4th Q	64.03	4.10	1.92	59.93	6.02			
7	75.62	15.70	8.39	59.93	24.08	0.5145	0.2749	0.7893
1st Q	59.93	4.22	1.80	55.71	6.02			
2nd Q	55.71	4.35	1.67	51.36	6.02			
3rd Q	51.36	4.48	1.54	46.88	6.02			
4th Q	46.88	4.61	1.41	42.26	6.02			
8	59.93	17.67	6.42	42.26	24.08	0.5790	0.2103	0.7893
1st Q	42.26	4.75	1.27	37.51	6.02			
2nd Q	37.51	4.90	1.13	32.61	6.02			
3rd Q	32.61	5.04	0.98	27.57	6.02			
4th Q	27.57	5.19	0.83	22.38	6.02			
9	42.26	19.88	4.20	22.38	24.08	0.6517	0.1376	0.7893
1st Q	22.38	5.35	0.67	17.03	6.02			
2nd Q	17.03	5.51	0.51	11.52	6.02			
3rd Q	11.52	5.67	0.35	5.85	6.02			
4th Q	5.85	5.85	0.18	(0.00)	6.02			
10	22.38	22.38	1.70	(0.00)	24.08	0.7335	0.0558	0.7893



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