



**ORDER OF THE AUTHORITY**  
**IN CASE NO. NEPRA/TRF-85/HPGCL-2007**  
**TO BE NOTIFIED IN THE OFFICIAL GAZETTE**

The Authority has assessed the project cost as per the breakup given hereunder;

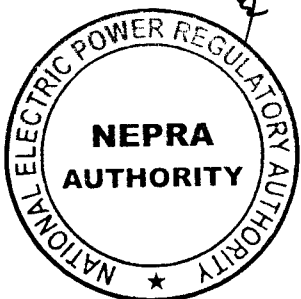
i)	EPC	US\$ 167.148 million
ii)	Rupee/Dollar parity	Pak Rs. 60
iii)	Euro/US\$ parity	1.4556
iv)	Non-EPC	US\$ 18.762 Million
v)	Financial Fee	US\$ 20.707 Million
vi)	Custom Duties	US\$ 7.357 Million
vii)	IDC	US\$ 11.240 Million

Based upon the above assessment of the Project Cost the Reference Tariff determined by the Authority is indicated in the following table;

**REFERENCE TARIFF**

Tariff Components	Year 1 to 10	Year 11 to 30	Indexation
<b>Capacity Charge (PKR/kW/Hour)</b>			
O&M Foreign	0.0651	0.0651	US CPI & \$ to Rupee WPI
O&M Local	0.0434	0.0434	
Cost of Working Capital *	0.0163	0.0163	KIBOR
Insurance	0.0739	0.0688	US\$ to Rupee
Debt Service - Local	0.1803	-	KIBOR
- Foreign	0.5864	-	Euro to Rupee
Return on Equity	0.2768	0.2768	US\$ to Rupee
ROE during Construction	0.0600	0.0600	US\$ to Rupee
<b>Total Capacity Charge</b>	<b>1.3023</b>	<b>0.5356</b>	
* In case plant operation on HSD cost of working capital shall be paid on 15 days inventory level basis as Rs. 0.0349/kW/hour			
<b>A) Energy Charge on Operation on Gas Rs./kWh</b>			
Fuel Cost Component	1.7787	1.7787	Fuel Price
Variable O&M	0.1746	0.1746	US CPI & \$ to Rupee
<b>B) Energy Charge on Operation on HSD Rs./kWh</b>			
Fuel Cost Component	6.7151	6.7151	Fuel Price
Variable O&M	0.2520	0.2520	US CPI & \$ 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.
- v) Debt Servicing schedule is attached as Annex-III.





Pursuant to Rule 6 of the NEPRA Licensing (Generation) Rules 2000, HPGCL is allowed to charge, subject to adjustment of Capacity Purchase Price, on account of 'Net Dependable Capacity', as determined by test(s) jointly carried out by Power Purchaser and the Petitioner, the above mentioned tariff for the delivery of electricity to Power Purchaser. The following 'Indexations' shall be applicable to reference tariff;

I. One Time Adjustment

a) Adjustment due to variation in net capacity

The reference tariff has been determined on the basis of net capacity of 208.965 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. The adjustments shall be made according to the following formula:

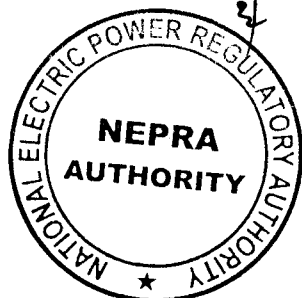
i) O&M Foreign	=	0.0651/tested IDC x 209MW
ii) O&M Local	=	0.0434/tested IDC x 209MW
iii) Insurance	=	0.0739/tested IDC x 209MW
iv) Cost of Working Capital-Gas	=	0.0163/tested IDC x 209MW
v) Cost of Working Capital-HSD	=	0.0349/tested IDC x 209MW
vi) Debt Service-Local	=	0.1803/tested IDC x 209MW
-Foreign	=	0.5864/tested IDC x 209 MW
vii) Return on Equity	=	0.2768/tested IDC x 209MW
viii) ROE during Construction	=	0.0600/tested IDC x 209MW
ix) Variable O&M - Gas	=	0.1746/tested IDC x 209MW
x) Variable O&M - HSD	=	0.2520/tested IDC x 209MW

b) Debt Service, ROE and ROEDC shall be adjusted at COD as per actual based upon the authentic documentary evidence to be provided by HPGCL on account of following variations;

- i) The Euro and Dollar component of EPC Cost for variation in relevant exchange rate variation against reference exchange rates;
- ii) Financial Advisory Fee (subject to the maximum of 1.2% of the borrowing);
- iii) Custom Duties & Taxes
- iv) Interest During Construction;
- v) Change in Financing Structure due to change in Foreign/ Local Borrowing Composition
- vi) The Working Capital requirement for fuel inventory will be established at the time of COD on the basis of fuel prices at that time.

c) 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 HPGCL according to the following formula;

Insurance (Revised) = AIC/\$2.256 million x AP

Where;

AIC = Adjusted Insurance Component as per IDC Test

AP = Actual Premium

## II. Pass-Through Items

No provision for income tax has been accounted for in the tariff. If HPGCL is obligated to pay any tax on its ROE, the exact amount paid by the company may be reimbursed by Power Purchaser to HPGCL 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, HPGCL may also submit to Power Purchaser details of any tax shield savings and Power Purchaser will deduct the amount of these savings from its payment to HPGCL 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. Power Purchaser (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:

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

Where:

$E_{(REF)}$  = Reference Equity (US\$ 56.304 million x 60)

$E_{(Red)}$  = Equity Redeemed

$ROEDC_{(REF)}$  = 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).

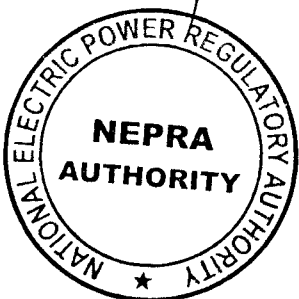
In case Company does not declare a dividend in a particular year or only declares a partial dividend, then the difference in the withholding tax amount (between what is paid in that year and the total entitlement as per the Net Return on Equity) would be carried forward and accumulated so that the Company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

## III. Indexations:

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

### a) Indexation applicable to O&M

In future the 40% of Fixed O&M part of Capacity Charge will be adjusted on account of average quarterly local Inflation (WPI) and 60% on account of variation in average quarterly US CPI and dollar/Rupee exchange rate. Quarterly





adjustment for local inflation, foreign inflation and exchange rate variation will be made on 15<sup>th</sup> July, 15<sup>th</sup> October, 15<sup>th</sup> January and 15<sup>th</sup> April based on the average of the available information with respect to average WPI notified by the Federal Bureau of Statistics (FBS), average 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

$$F \text{ O\&M-Local}_{(REV)} = \text{Rs. } 0.0434/\text{kW/Hour} * WPI_{(REV)} / 117.80$$

$$F \text{ O\&M-Foreign}_{(REV)} = \text{Rs. } 0.0651/\text{kW/Hr} * US \text{ CPI}_{(REV)} / 200 * ER_{(REV)} / 60$$

Where:

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

$F \text{ O\&M}_{(FREX)}$  = 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)  
 $WPI_{(REF)}$  = 117.80 average quarterly wholesale price index (manufacturers) for the quarter ending April 2006 notified by Federal Bureau of Statistics

$US \text{ CPI}_{(REV)}$  = The revised average quarterly US CPI  
 $US \text{ CPI}_{(REF)}$  = 199.8 average quarterly US CPI for the quarter ending April 2006 as notified by the US Bureau of Labor Statistics

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

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

(ii) Variable O&M

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

$$V \text{ O\&M-Gas}_{(REV)} = \text{Rs. } 0.1746 \text{ per kWh} * US \text{ CPI}_{(REV)} / 199.8 * ER_{(REV)} / 60$$

$$V \text{ O\&M-HSD}_{(REV)} = \text{Rs. } 0.2520 \text{ per kWh} * US \text{ CPI}_{(REV)} / 199.8 * ER_{(REV)} / 60$$

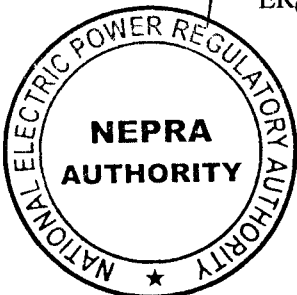
Where:

$V \text{ O\&M-Gas}_{(REV)}$  = The revised applicable Variable O&M Component of the Energy Charge indexed with US CPI and Exchange rate variations

$V \text{ O\&M-HSD}_{(REV)}$  = The revised applicable Variable O&M Component of the Energy Charge indexed with US CPI and Exchange rate variations

$US \text{ CPI}_{(REV)}$  = The revised average quarterly US CPI  
 $US \text{ CPI}_{(REF)}$  = 199.8 average quarterly US CPI for the quarter ending April 2006 as notified by the US Bureau of Labor Statistics

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





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

b) Adjustment for KIBOR variation

The interest part of fixed charge local 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;

$$\Delta I = P_{(REV)} * (KIBOR_{(REV)} - 9\%) / 4$$

Where:

$\Delta I$  = the variation in interest charges applicable corresponding to variation in quarterly KIBOR.  $\Delta I$  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  $\Delta I$  for each quarter under adjustment applicable on quarterly

$P_{(REV)}$  = 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.

Note:- Since LIBOR is fixed with respect to Foreign Loan component for the entire repayment term, there will be no adjustment on account of LIBOR variation. However, if the fixed interest rate is agreed lower than the rate used for tariff calculation, the entire benefit will be passed on to the power purchaser.

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 as and when notified by the relevant authority, which in the instant case is the Oil & Gas Regulatory Authority (OGRA). In this regard, the variation in HPGCL's allowed rate relating to fuel cost shall be revised according to the following formula:

$$FCg_{(REV)} = Rs. 1.7787 \text{ per kWh} * FP_{(REV)} / Rs. 266.83 \text{ per MMBTU}$$

Where:

$FCg_{(REV)}$  = Revised fuel cost component of Variable Charge on gas

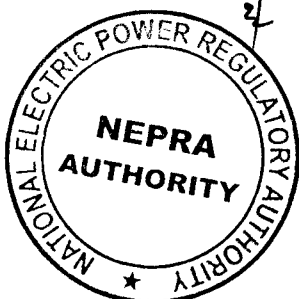
$FPg_{(REV)}$  = The new price of gas as notified by the relevant Authority per MMBTU of fuel adjusted for LHV-HHV factor.

$FCd_{(REV)}$  = Rs. 6.7151 per kWh \*  $[FPd_{(REV)} \text{ Rs.per MMBTUs}] / Rs. 954.27 \text{ per MMBTU (Excl-GST)}$

Where:

$FCd_{(REV)}$  = Revised fuel cost component of Variable Charge on Diesel

$FPd_{(REV)}$  = The new price of diesel as notified by the relevant Authority per Litre of fuel adjusted for NCV-GCV factor, Specific gravity and Calorific value (Gross)





Reference values used in the calculations;

HSD Fuel price with GST (GCV)	Rs. 37.29 per litre
GST	15%
HSD fuel Price without GST (GCV)	Rs. 32.43 per liter
HHV-LHV Adjustment Factor	1.06
HSD Fuel Price without GST (NCV)	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)	42,880.7 BTUs/Kg

- iii) In case of adjustment in HSD fuel component, HPGCL 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 it regarding the Authenticity and validity of the information provided by HPGCL. 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. HPGCL shall be allowed immediate adjustment by the Authority within 7 days of such request with requisite certificates and verifications.
- iv) 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 HPGCL's request for adjustment in accordance with the requisite indexation mechanism stipulated herein.
- v) 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 HPGCL. However the change or modification shall be applicable from the date of issue of such Policy and shall not be applicable retrospectively.

**Terms and Conditions of Tariff:**

- i) Use of Gas only 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 HPGCL which are not covered in this determination may be dealt with in the PPA according to its standard terms.

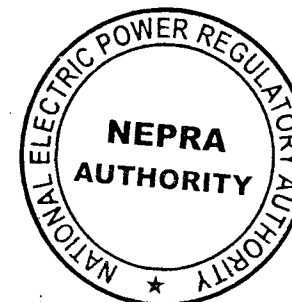
The above tariff and terms and conditions be incorporated as the specified tariff approved by the Authority pursuant to Rule 6 of the Licencing (Generation) Rules, in a PPA between HPGCL and Power Purchaser.



**HALMORE POWER GENERATION COMPANY (HPGCL)  
SPECIFIED TARIFF- PLANT OPERATION ON GAS**

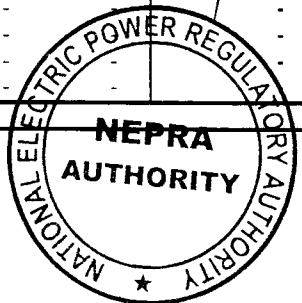
Year	Energy Charge (Rs/kWh)			Capacity Charge Rs/kW per Hour											Total Tariff		
	Fuel	Variable O&M	Total	Fixed O&M Foreign	Fixed O&M Local	Insurance	W.C	ROE DC	ROE	Withholding tax on div	Sub Total	Debt Servicing Foreign	Debt Servicing Local	Total Debt Servicing		Total Capacity charge	
																Rs/kW/hr	Rs/kWh at 60% PF
1	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659
2	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659
3	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659
4	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659
5	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659
6	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659
7	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659
8	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659
9	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659
10	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659
11	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
12	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
13	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
14	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
15	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
16	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
17	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
18	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
19	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
20	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
21	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
22	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
23	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
24	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
25	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
26	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
27	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
28	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
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30	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881
Levelised	1.7787	0.1746	1.9533												1.0606	1.7677	3.7210

Cents 6.202



**HALMORE POWER GENERATION COMPANY (HPGCL)  
SPECIFIED TARIFF- PLANT OPERATION ON HSD**

Year	Energy Charge (Rs/kWh)			Capacity Charge Rs/kW per Hour												Total Capacity charge		Total Tariff Rs/kWh
	Fuel	Variable O&M	Total	Fixed O&M Foreign	Fixed O&M Local	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/kWh at		
																60% PF		
1	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107	
2	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107	
3	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107	
4	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107	
5	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107	
6	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107	
7	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107	
8	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107	
9	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107	
10	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107	
11	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
12	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
13	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
14	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
15	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
16	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
17	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
18	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
19	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
20	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
21	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
22	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
23	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
24	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
25	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
26	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
27	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
28	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
29	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
30	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329	
Levelised			6.9671												1.0792	1.7987	8.7658	

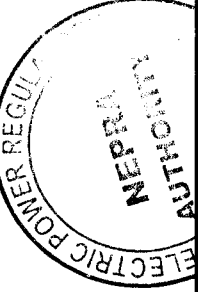


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HalmorePower Generation Company Limited  
Debt Servicing Schedule

Period	Local Debt				Annual				Foreign Debt			Annual		Annual Debt Servicing Rs./KW/HR.	
	Principal Million \$	Repayment Million \$	Mark-Up Million \$	Balance Million \$	Debt Service Million \$	Principal Rs./KW/HR.	Annual Interest Rs./KW/HR.	Annual Debt Servicing Rs./KW/HR.	Period	Repayment Million \$	Mark-Up Million \$	Debt Service Million \$	Principal Rs./KW/HR.		Annual Interest Rs./KW/HR.
1st Q	31.7891	0.4216	0.9537	31.3675	1.3753	0.0138	0.0313	0.0451	1st Q	137.1222	2.5984	4.4735	0.0852	0.0615	
2nd Q	31.3675	0.4342	0.9410	30.9333	1.3753	0.0142	0.0308	0.0451	2nd Q	134.5239	2.6339	4.4735	0.0863	0.0603	
3rd Q	30.9333	0.4473	0.9280	30.4860	1.3753	0.0147	0.0304	0.0451	3rd Q	131.8900	2.6699	4.4735	0.0875	0.0591	
4th Q	30.4860	0.4607	0.9146	30.0253	1.3753	0.0151	0.0300	0.0451	4th Q	129.2201	2.7064	4.4735	0.0887	0.0579	
1	31.7891	1.7638	3.7373	30.0253	5.5011	0.0578	0.1225	0.1803	1	137.1222	10.6085	17.8940	0.3477	0.2388	
1st Q	30.0253	0.4745	0.9008	29.5508	1.3753	0.0156	0.0295	0.0451	1st Q	126.5137	2.7434	4.4735	0.0899	0.0567	
2nd Q	29.5508	0.4887	0.8865	29.0620	1.3753	0.0160	0.0291	0.0451	2nd Q	123.7703	2.7809	4.4735	0.0911	0.0555	
3rd Q	29.0620	0.5034	0.8719	28.5586	1.3753	0.0165	0.0286	0.0451	3rd Q	120.9893	2.8190	4.4735	0.0924	0.0542	
4th Q	28.5586	0.5185	0.8568	28.0401	1.3753	0.0170	0.0281	0.0451	4th Q	118.1704	2.8575	4.4735	0.0936	0.0530	
2	30.0253	1.9852	3.5159	28.0401	5.5011	0.0651	0.1152	0.1803	2	126.5137	11.2008	17.8940	0.3671	0.2593	
1st Q	28.0401	0.5341	0.8412	27.5060	1.3753	0.0175	0.0276	0.0451	1st Q	115.3128	2.8966	4.4735	0.0949	0.0517	
2nd Q	27.5060	0.5501	0.8252	26.9560	1.3753	0.0180	0.0270	0.0451	2nd Q	112.4162	2.9362	4.4735	0.0962	0.0504	
3rd Q	26.9560	0.5666	0.8087	26.3894	1.3753	0.0186	0.0265	0.0451	3rd Q	109.4800	2.9764	4.4735	0.0975	0.0491	
4th Q	26.3894	0.5836	0.7917	25.8058	1.3753	0.0191	0.0259	0.0451	4th Q	106.5037	3.0171	4.4735	0.0989	0.0477	
3	28.0401	2.2343	3.2667	25.8058	5.5011	0.0732	0.1071	0.1803	3	115.3128	11.8262	17.8940	0.3876	0.1989	
1st Q	25.8058	0.6011	0.7742	25.2047	1.3753	0.0197	0.0254	0.0451	1st Q	103.4866	3.0583	4.4735	0.1002	0.0464	
2nd Q	25.2047	0.6191	0.7561	24.5855	1.3753	0.0203	0.0248	0.0451	2nd Q	100.4283	3.1001	4.4735	0.1016	0.0450	
3rd Q	24.5855	0.6377	0.7376	23.9478	1.3753	0.0209	0.0242	0.0451	3rd Q	97.3282	3.1425	4.4735	0.1030	0.0436	
4th Q	23.9478	0.6568	0.7184	23.2910	1.3753	0.0215	0.0235	0.0451	4th Q	94.1856	3.1855	4.4735	0.1044	0.0422	
4	25.8058	2.5148	2.9863	23.2910	5.5011	0.0824	0.0979	0.1803	4	103.4866	12.4865	17.8940	0.4092	0.1772	
1st Q	23.2910	0.6765	0.6987	22.6144	1.3753	0.0222	0.0229	0.0451	1st Q	91.0001	3.2291	4.4735	0.1058	0.0408	
2nd Q	22.6144	0.6968	0.6784	21.9176	1.3753	0.0228	0.0222	0.0451	2nd Q	87.7711	3.2732	4.4735	0.1073	0.0393	
3rd Q	21.9176	0.7177	0.6575	21.1999	1.3753	0.0235	0.0215	0.0451	3rd Q	84.4978	3.3180	4.4735	0.1087	0.0379	
4th Q	21.1999	0.7393	0.6360	20.4606	1.3753	0.0242	0.0208	0.0451	4th Q	81.1798	3.3634	4.4735	0.1102	0.0364	
5	23.2910	2.8304	2.6707	20.4606	5.5011	0.0928	0.0875	0.1803	5	77.8165	13.1836	17.8940	0.4321	0.1544	
1st Q	20.4606	0.7615	0.6138	19.6991	1.3753	0.0250	0.0201	0.0451	1st Q	74.4071	3.4094	4.4735	0.1117	0.0349	
2nd Q	19.6991	0.7843	0.5910	18.9148	1.3753	0.0257	0.0194	0.0451	2nd Q	70.9511	3.4560	4.4735	0.1133	0.0333	
3rd Q	18.9148	0.8078	0.5674	18.1070	1.3753	0.0265	0.0186	0.0451	3rd Q	67.4479	3.5032	4.4735	0.1148	0.0318	
4th Q	18.1070	0.8321	0.5432	17.2749	1.3753	0.0273	0.0178	0.0451	4th Q	63.8968	3.5511	4.4735	0.1164	0.0302	
6	20.4606	3.1856	2.3154	17.2749	5.5011	0.1044	0.0759	0.1803	6	63.8968	13.9197	17.8940	0.4562	0.1302	
1st Q	17.2749	0.8570	0.5182	16.4179	1.3753	0.0281	0.0170	0.0451	1st Q	60.2970	3.5997	4.4735	0.1180	0.0286	
2nd Q	16.4179	0.8827	0.4925	15.5352	1.3753	0.0289	0.0161	0.0451	2nd Q	56.6481	3.6489	4.4735	0.1196	0.0270	
3rd Q	15.5352	0.9092	0.4661	14.6260	1.3753	0.0298	0.0153	0.0451	3rd Q	52.9493	3.6988	4.4735	0.1212	0.0254	
4th Q	14.6260	0.9365	0.4398	13.6895	1.3753	0.0307	0.0144	0.0451	4th Q	49.1999	3.7494	4.4735	0.1229	0.0237	
7	17.2749	3.5855	1.9166	13.6895	5.5011	0.1175	0.0628	0.1803	7	49.1999	14.6969	17.8940	0.4816	0.1048	
1st Q	13.6895	0.9646	0.4107	12.7249	1.3753	0.0316	0.0135	0.0451	1st Q	45.3992	3.8007	4.4735	0.1246	0.0220	
2nd Q	12.7249	0.9933	0.3817	11.7314	1.3753	0.0326	0.0125	0.0451	2nd Q	41.5451	3.8527	4.4735	0.1263	0.0203	
3rd Q	11.7314	1.0233	0.3519	10.7080	1.3753	0.0335	0.0115	0.0451	3rd Q	37.6412	3.9053	4.4735	0.1280	0.0186	
4th Q	10.7080	1.0540	0.3212	9.6540	1.3753	0.0345	0.0105	0.0451	4th Q	33.6824	3.9588	4.4735	0.1297	0.0169	
8	13.6895	4.0355	1.4656	9.6540	5.5011	0.1323	0.0480	0.1803	8	33.6824	15.5175	17.8940	0.5085	0.0779	
1st Q	9.6540	1.0857	0.2896	8.5683	1.3753	0.0356	0.0095	0.0451	1st Q	29.6695	4.0129	4.4735	0.1315	0.0151	
2nd Q	8.5683	1.1182	0.2571	7.4501	1.3753	0.0366	0.0084	0.0451	2nd Q	25.6017	4.0678	4.4735	0.1333	0.0133	
3rd Q	7.4501	1.1518	0.2235	6.2983	1.3753	0.0377	0.0073	0.0451	3rd Q	21.4784	4.1234	4.4735	0.1351	0.0115	
4th Q	6.2983	1.1863	0.1890	5.1120	1.3753	0.0389	0.0062	0.0451	4th Q	17.2966	4.1798	4.4735	0.1370	0.0096	
9	9.6540	4.5420	0.9591	5.1120	5.5011	0.1488	0.0314	0.1803	9	17.2966	16.3838	17.8940	0.5369	0.0495	
1st Q	5.1120	1.2219	0.1534	3.8901	1.3753	0.0400	0.0050	0.0451	1st Q	13.0616	4.2369	4.4735	0.1389	0.0078	
2nd Q	3.8901	1.2586	0.1167	2.6315	1.3753	0.0412	0.0038	0.0451	2nd Q	8.7668	4.2949	4.4735	0.1408	0.0059	
3rd Q	2.6315	1.2963	0.0789	1.3352	1.3753	0.0425	0.0026	0.0451	3rd Q	4.4131	4.3536	4.4735	0.1427	0.0039	
4th Q	1.3352	1.3352	0.0401	(0.0000)	1.3753	0.0438	0.0013	0.0451	4th Q	0.0000	4.4131	4.4735	0.1446	0.0020	
10	5.1120	5.1120	0.3891	(0.0000)	5.5011	0.1675	0.0128	0.1803	10	17.2986	17.2986	17.8940	0.5669	0.0195	

**NATIONAL ELECTRIC POWER REGULATORY AUTHORITY  
(NEPRA)**

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No. NEPRA/TRF-85/HPGCL-2007

November 8, 2007

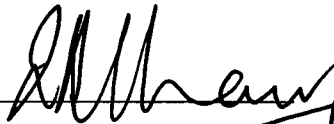
**Petitioner**

Halmore Power Generation Company (Pvt.) Ltd.  
House No. 234-B, Street 13, Sector E-7, Islamabad


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**AUTHORITY**


Zafar Ali Khan  
Member

  
8/11/07

Nasiruddin Ahmed  
Member

  
8/11/07

Abdul Rahim Khan  
Acting Chairman

  
8/11/07







## Background:

- 1.1 Halmore Power Generation Company (Pvt.) Ltd. (hereinafter referred to as the “HPGCL”) intends to set up a 225 MW (Gross ISO) 209 MW (Net) at 132 kV Bus Bar, combined cycle thermal power plant based on dual fuel (Gas/HSD) at Bhikki, Shaikhupura-Faisalabad Highway in terms of the Policy for Power Generation Projects 2002 (hereinafter referred to as the “Policy”). The primary source of fuel for the project is pipeline quality gas. The electricity generated will be purchased by Central Power Purchasing Agency (CPPA) of National Transmission and Despatch Company (NTDC) on behalf of Ex-WAPDA Discos (hereinafter referred to as the “Power Purchaser”).
- 1.2 Earlier, on 7<sup>th</sup> July 2006 HPGCL filed a tariff petition for the approval of generation tariff. The Authority determined HPGCL’s tariff on 30<sup>th</sup> August 2006 (hereinafter referred to as the “Determination”) which accordingly was notified by the Federal Government *vide* SRO No. 1175(I)/2006 dated 14<sup>th</sup> November 2006.
- 1.3 On 13<sup>th</sup> September 2007, HPGCL filed this instant petition for the modification of its determined tariff (hereinafter referred to as the “Petition”), which was admitted on 19<sup>th</sup> September 2007 for Authority’s consideration. HPGCL Revision Petition has been assigned a case number NEPRA/TRF-85/HPGCL-2007. Salient features of the Revision Petition were advertised in the newspapers to inform and invite participation of interested persons/stakeholders in the tariff-setting proceedings.
- 1.4 Petition was heard by the Authority, pursuant to notice, on 28<sup>th</sup> September 2007 at 1000 hours in NEPRA Office at Islamabad in the presence of stakeholders, commentators and public.
- 1.5 Summarized, HPGCL Petition is based on the following grounds:
  - A. Increase in the Engineering, Procurement and Construction Cost (hereinafter referred to as the “EPC Cost”);
  - B. Change in the Debt Financing.

## 2. Main Assumptions of HPGCL:

- 2.1 The main revised assumptions used for working out the Revised Reference Tariff relating to the Debt Service payment and Return on Equity (hereinafter referred to as the “ROE”) are as follows:

- 2.1.1 EPC Cost:

Supply Contract:	Euros 110 Million
Construction Contract:	US\$ 20 Million

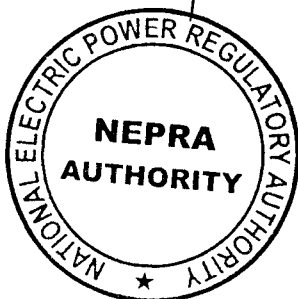
- 2.1.2 Custom Duties & Taxes: Sum of US\$ 6.026 Million have been assumed under this head calculated @ 5% on the 70% of the EPC Cost, however, actual amount shall be determined along with total project cost



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		at the Commercial Operations Date (hereinafter referred to as the "COD")
<b>2.1.3</b>	<b>Financial Charges:</b>	
	Interest During Construction (hereinafter "IDC")	Foreign Loan of Euros 8.026 Million & Local Loan of Pak Rs. 297.435 Million. The IDC figures are based on the estimated loan drawdown schedules, however, actual IDC would be calculated at the time of Financial Close when the details of loan drawdown is available
	Export Credit Insurance:	Euros 15.106 Million
	Other Financial Charges:	Euros 2.537 Million for Foreign Loan and Pak Rs. 48.982 Million for Local Loan
<b>2.1.4</b>	<b>Debt/Equity Ratio:</b>	75:25
<b>2.1.5</b>	<b>Equity portion:</b>	US\$ 61.03 Million
<b>2.1.6</b>	<b>Currency of Loans:</b>	
	Local Loan:	Pak Rs
	Foreign Loan:	Euros
<b>2.1.7</b>	<b>Interest Rates:</b>	
	Local Loan:	KIBOR as 9.0% plus 3% premium
	Foreign Loan:	Commercial Interest Reference Rate (hereinafter referred to as the "CIRR") for Euro as 5.47% plus Export Guarantee and Insurance Corporation (hereinafter referred to as the "EGAP") Premium as 14.12% (one time payment)
	Front End Fee:	1% for both the Loans
	Commitment Fee:	0.2% for both the Loans
<b>2.1.8</b>	<b>Number of interest &amp; Principal repayments in a year:</b>	Four (4) equal quarterly payments
<b>2.1.9</b>	<b>Loan Repayment period:</b>	Ten (10) Years
<b>2.1.10</b>	<b>Reference Exchange Rate:</b>	US \$ 1= Pak Rs 60 Euro 1= Pak Rs 83
<b>2.2</b>	<b>Petition seeks that the tariff components of HPGCL's re-determined on the basis of aforesaid revised assumptions:</b>	
	<b>I</b>	Debt Service Component
	<b>II</b>	ROE
	<b>III</b>	Return on Equity during Construction (hereinafter referred to as the "ROEDC")



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### 3. Relief Sought:

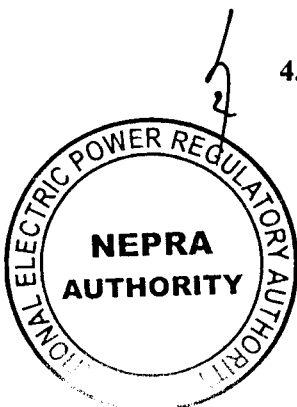
More specifically, HPGCL has sought revision in its Determination in respect of the following:

- 3.1 Based on its revised EPC Costs finalized with EPC Contractor and new funding arrangements with the lenders for a period of 30 years from the date of Commercial Operation, HPGCL requested approval of the proposed revised tariff components;
- 3.2 HPGCL requested indexation of its Debt Service component in Euros taking Euros/Rupee parity Reference Rate of Euro 1 = Pak Rs 83; and
- 3.3 HPGCL requested indexation of ROE and ROEDC for US\$/Pak Rs parity with Reference rate of US Dollar 1 = Pak Rs 60.

The submission of the Petitioner, Power Purchaser and Authority's decision thereon is provided hereunder:

#### 4.1 EPC Contract:

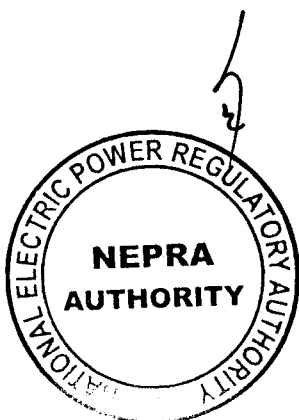
- 4.1.1 According to HPGCL, its earlier Determination was based on EPC Cost of US\$ 143.9 Million (Euros 119.2 Million), with Rupee/Dollar parity adjustment on 70% of EPC Cost applicable to imported equipment. When HPGCL approached the EPC Contractor for the execution of the contract, the EPC Contractor, claiming that the plant and equipment was of European origin and the exchange rate of Euros versus US\$ had considerably increased, demanded US\$ 160 Million. HPGCL claimed that it managed to re-negotiate the EPC Cost to US\$ 155.5 Million based on Euro/Dollar parity of 1.3373. Accordingly the Contract Agreement for the Supply of Plant & Material between HPGCL and Skodaexport Co. Ltd (Supply Contract) amounting to US\$ 135.5 Million and the Construction Contract amounting to US\$ 20 Million; signed in the month of April 2007, the prices were to remain valid until 15<sup>th</sup> June 2007, (collectively the Supply and Construction Contract are hereinafter referred as to "EPC Contract").
- 4.1.2 HPGCL submitted that due to the issues raised by the Lender's legal, financial and technical advisors it could not finalize its financing arrangements. Since the Contractors required from HPGCL's Lenders 'confirmed validated offer for the whole price', the advance payments of the EPC price could not be locked/firmed up. HPGCL approached the EPC Contractor for a firm price soon after it received the in-principle approval of loan from Czech Export Bank (hereinafter referred to as the "CEB") Export and Project Finance Department, Prague, Czech Republic. The Supply Contractor demanded a price of Euro 115 Million with 34 months completion period.
- 4.1.3 HPGCL submitted that after hectic negotiations with the Supply Contractor, the Company succeeded to get a reduced price of Euro 110 Million with 32.5 Months completion period. Reliance is placed on a signed Memorandum of Understanding (MoU) submitted by HPGCL to the Authority. Although HPGCL's Construction Contract cost remains the same at US\$ 20 Million with validity until 31<sup>st</sup> October 2007, the construction period has been increased to 32.5 months. This new total price of Supply and Construction Contracts or EPC Cost in terms of





Euros, as claimed by HPGCL is only 4.4% higher than that price approved by NEPRA in its Determination.

- 4.1.4** According to HPGCL there are few issues which are still outstanding. The most significant issue among them is the incorporation of “English Law” as governing law of Government of Pakistan (hereinafter referred to as the “GOP”) guarantee and the Lender’s Direct Agreement under the Implementation Agreement (hereinafter referred to as the “IA”) in place of “Pakistani Law”, as was insisted by the Foreign Lenders. The matter is before the Economic Coordination Committee of the Cabinet (ECC) for consideration and is likely to be resolved shortly.
- 4.1.5** HPGCL’s justification for increase in the EPC price with the EPC Contractor is mainly based on:
- (i) Increase in costs of materials used in the manufacturing of Gas/Steam Turbines has raised the costs.
  - (ii) Change in Euro/Dollar parity. At the time of offered rate the Euro was equal to 1.2 Dollars which now has increased to US\$ 1.38.
  - (iii) Due to the present demand and supply situation in the international market the Manufacturers are demanding monopoly prices for plant and machinery.
- 4.1.6** The Power Purchaser opposed the HPGCL’s claim for increase of approximately US\$ 28 Million in EPC Cost from US\$ 143.8 Million to US\$ 171.8 Million (Euros110 Million + US\$ 20 Million) in a period of about one year.
- 4.1.7** Power Purchaser also objected to the extension of construction period from 28 months to 32.5 months. According to Power Purchaser this would have detrimental effect as:
- i) It would correspondingly increase costs of IDC.
  - ii) Under the existing power shortage scenario of the country, the Power Purchaser will be deprived from the availability of scheduled 200 MW power for 4.5 months beyond the Required Commercial Operation Date under the Power Purchase Agreement (hereinafter referred to as the “PPA”). Consequently, the Power Purchaser will have to manage this power shortfall through load shedding or by purchasing power at high costs.
  - iii) Issues including the construction period of 28 months have been conclusively agreed between the Power Purchaser and HPGCL in the PPA, which was signed in the month of April 2007. The HPGCL and Construction Contractor have agreed to extend the construction period which is in breach of PPA and would also correspondingly extend the COD. Where there is no fault of the party it should not be subjected to suffer.
- 4.1.8** Additionally, the Power Purchaser stated that subsequent to the execution of security documents any extension in construction period should not in any event put additional financial burden on the Power Purchaser including the its effect on IDC and ROE.



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- 4.1.9 The Authority has considered all the documentary evidence and justification given by HPGCL in support of its case. HPGCL had sufficient time to finalize all the required agreements. It, however, took eight months for HPGCL, after the Determination, to finalize its EPC Contract, which had the validity up to 15<sup>th</sup> June 2007. The Authority finds that the delay and resultant increase in costs is solely and exclusively attributable to HPGCL (Owner). As per terms of the Supply Contract, if the EPC Contractor had received 'Limited Notice to Commence' on or before the validity date, the price of the equipment would not have required any adjustment. The Authority finds that HPGCL failure to issue 'Limited Notice to Commence' in a timely manner has resulted in increasing the EPC price to approximately US\$ 17 Million. The Authority finds that HPGCL has not taken reasonable steps to avoid such increase in the EPC price. Clause-5 of the Supply Contract states that:

*"The Contract Price shall remain valid till June 15<sup>th</sup> 2007. In the event that Supply Contractor has not received the Limited Notice to Commence or the Notice to Commence on or before this date, this Contract Price shall be subject to adjustment in accordance with Appendix No. 1 to present Contract Agreement. The Parties further recognize that in the event that no Limited Notice to Commence or no Notice to Commence has been issued by the Owner by June 15<sup>th</sup> 2007, the Construction Schedule and the Time of Completion may require to be extended."*

[Emphasis Added]

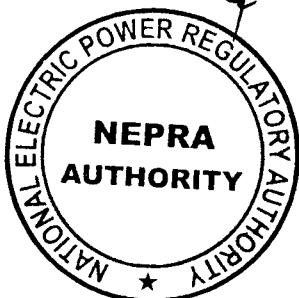
- 4.1.10 In view of the above, the Authority considers that the petitioner has not been able to justify fully the increase as demanded. However, keeping in view the acute shortage and dire need of electricity, the Authority has to give due consideration to the matter of urgency of induction of the proposed generation. The Authority examined the working submitted by the HPGCL in support of its case and observed that the working does not fully substantiate HPGCL's claim. Based upon the information provided by HPGCL, applying the Euro/US\$ parity of 1.4556 as on November 7, 2007, the EPC cost works out as US\$ 147.148 on a one time basis. In light of the above, the Authority has decided to approve US\$ 147.148 Million as the equipment supply and US \$ 20 Million for construction.

- 4.1.11 The Authority considers that 28 months would be a reasonable construction period as per the terms of PPA for determining IDC and ROEDC as proposed by Power Purchaser and allows as such.

## 4.2 Change in Debt Financing

- 4.2.1 HPGCL stated that in its Petition filed in July 2006 the whole Debt Financing was assumed through Local Loan but due to non-availability of local financing, the Company had to approach Foreign Lenders for its foreign currency requirements.

- 4.2.2 According to HPGCL it was successful in arranging the Foreign Debt funding requirements through Czech Export Bank ("CEB") Export and Project Finance Department, Prague, Czech Republic. The Local Loan is arranged through Hong Kong Shanghai Bank Company and Askari



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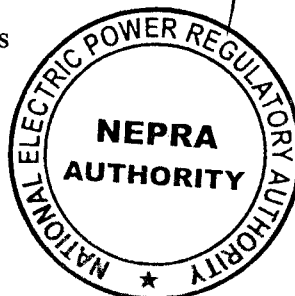
Commercial Bank Limited. The lead arranger for the entire debt financing is HSBC Bank plc, London.

- 4.2.3** HPGCL stated that this EGAP Financing Facility carries a special feature that the CIRR rate remains constant throughout the Facility period. Current rate for CIRR for Euro is 5.47%, less than the current LIBOR (5.7%) for 3 months. There is no premium added to the base rate. The EGAP Premium of 14.12% although indicates a big jump in the overall debt amount but when compared with the similar withdrawals under LIBOR + 3%, the Debt service payments are lower in case of CIRR. As such CIRR is more beneficial, compared to LIBOR not only because of lower Debt Service repayment but also without any future adjustment of CIRR, as in case of LIBOR.
- 4.2.4** The Power Purchase submitted that rate of Export Credit Insurance i.e. 14.12% is on higher side. In a recently negotiated loan between Ministry of Finance (Pakistan) and Export Development Iran, the Insurance premium agreed as 8.3472%. Power Purchaser do not support the HPGCL's stance regarding indexation for Euro in the calculation of Debt Service Component for Euro Rupees parity.
- 4.2.5** The analysis carried out by different international banks and financial institutions, HPGCL's proposed financing arrangement apparently appears to be better option, any long term prediction of exchange rate variation cannot be made with reasonable accuracy and precision.
- 4.2.6** The Authority observes that the terms and conditions attached to the Petition are merely indicative and have not yet been finalized. As the borrowing can be in Euros or any other freely convertible currency, the debt service schedule will require adjustment at the time of Financial Close. However, as requested by HPGCL, for the purpose of determination of tariff, the indicative terms and conditions for EGAP Supported Buyer Credit Facility is adopted.
- 4.2.7** The Authority considers that the proposed financing arrangement by HPGCL is in accordance with the GOP policy and there is no significant difference in cost of borrowing while comparing with other financing options. Based on the aforesaid, the Authority has decided to approve the proposed financing arrangement.

## 5. ORDER:

The Authority has assessed the project cost as per the breakup given hereunder;

i)	EPC	US\$ 167.148 million
ii)	Rupee/Dollar parity	Pak Rs. 60
iii)	Euro/US\$ parity	1.4556
iv)	Non-EPC	US\$ 18.762 Million
v)	Financial Fee	US\$ 20.707 Million
vi)	Custom Duties	US\$ 7.357 Million
vii)	IDC	US\$ 11.240 Million





Based upon the above assessment of the Project Cost the Reference Tariff determined by the Authority is indicated in the following table;

**REFERENCE TARIFF**

Tariff Components	Year 1 to 10	Year 11 to 30	Indexation
<b>Capacity Charge (PKR/kW/Hour)</b>			
O&M Foreign	0.0651	0.0651	US CPI & \$ to Rupee
O&M Local	0.0434	0.0434	
Cost of Working Capital *	0.0163	0.0163	WPI
Insurance	0.0739	0.0688	KIBOR
Debt Service - Local	0.1803	-	US\$ to Rupee
- Foreign	0.5864	-	KIBOR
Return on Equity	0.2768	0.2768	Euro to Rupee
ROE during Construction	0.0600	0.0600	US\$ to Rupee
			US\$ to Rupee
<b>Total Capacity Charge</b>	<b>1.3023</b>	<b>0.5356</b>	
* In case plant operation on HSD cost of working capital shall be paid on 15 days inventory level basis as Rs. 0.0349/kW/hour			
<b>A) Energy Charge on Operation on Gas Rs./kWh</b>			
Fuel Cost Component	1.7787	1.7787	Fuel Price
Variable O&M	0.1746	0.1746	US CPI & \$ to Rupee
<b>B) Energy Charge on Operation on HSD Rs./kWh</b>			
Fuel Cost Component	6.7151	6.7151	Fuel Price
Variable O&M	0.2520	0.2520	US CPI & \$ 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.  
v) Debt Servicing schedule is attached as Annex-III.

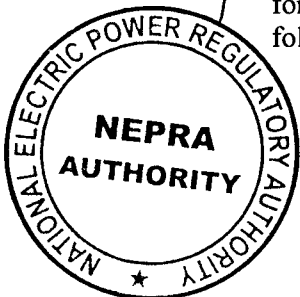
Pursuant to Rule 6 of the NEPRA Licensing (Generation) Rules 2000, HPGCL is allowed to charge, subject to adjustment of Capacity Purchase Price, on account of 'Net Dependable Capacity', as determined by test(s) jointly carried out by Power Purchaser and the Petitioner, the above mentioned tariff for the delivery of electricity to Power Purchaser. The following 'Indexations' shall be applicable to reference tariff;

I. One Time Adjustment

a) Adjustment due to variation in net capacity

The reference tariff has been determined on the basis of net capacity of 208.965 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. The adjustments shall be made according to the following formula:

- i) O&M Foreign = 0.0651/tested IDC x 209MW  
ii) O&M Local = 0.0434/tested IDC x 209MW  
iii) Insurance = 0.0739/tested IDC x 209MW



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iv) Cost of Working Capital-Gas	= 0.0163/tested IDC x 209MW
v) Cost of Working Capital-HSD	= 0.0349/tested IDC x 209MW
vi) Debt Service-Local	= 0.1803/tested IDC x 209MW
-Foreign	= 0.5864/tested IDC x 209 MW
vii) Return on Equity	= 0.2768/tested IDC x 209MW
viii) ROE during Construction	= 0.0600/tested IDC x 209MW
ix) Variable O&M - Gas	= 0.1746/tested IDC x 209MW
x) Variable O&M - HSD	= 0.2520/tested IDC x 209MW

b) Debt Service, ROE and ROEDC shall be adjusted at COD as per actual based upon the authentic documentary evidence to be provided by HPGCL on account of following variations;

- i) The Euro and Dollar component of EPC Cost for variation in relevant exchange rate variation against reference exchange rates;
- ii) Financial Advisory Fee (subject to the maximum of 1.2% of the borrowing);
- iii) Custom Duties & Taxes
- iv) Interest During Construction;
- v) Change in Financing Structure due to change in Foreign/ Local Borrowing Composition
- vi) The Working Capital requirement for fuel inventory will be established at the time of COD on the basis of fuel prices at that time.

c) 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 HPGCL according to the following formula;

$$\text{Insurance (Revised)} = \text{AIC}/\$2.256 \text{ million} \times \text{AP}$$

Where;

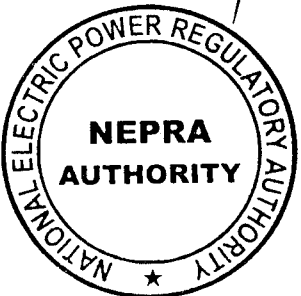
AIC = Adjusted Insurance Component as per IDC Test

AP = Actual Premium

## II. Pass-Through Items

No provision for income tax has been accounted for in the tariff. If HPGCL is obligated to pay any tax on its ROE, the exact amount paid by the company may be reimbursed by Power Purchaser to HPGCL 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, HPGCL may also submit to Power Purchaser details of any tax shield savings and Power Purchaser will deduct the amount of these savings from its payment to HPGCL 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. Power Purchaser (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:

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

Where:

$E_{(REF)}$  = Reference Equity (US\$ 56.304 million x 60)

$E_{(Red)}$  = Equity Redeemed

$ROEDC_{(REF)}$  = 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.

### III. Indexations:

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

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

In future the 40% of Fixed O&M part of Capacity Charge will be adjusted on account of average quarterly local Inflation (WPI) and 60% on account of variation in average quarterly US CPI and dollar/Rupee exchange rate. Quarterly adjustment for local inflation, foreign inflation and exchange rate variation will be made on 15<sup>th</sup> July, 15<sup>th</sup> October, 15<sup>th</sup> January and 15<sup>th</sup> April based on the average of the available information with respect to average WPI notified by the Federal Bureau of Statistics (FBS), average 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

$$F \text{ O\&M-Local}_{(Rev)} = \text{Rs. } 0.0434/\text{kW/Hour} * WPI_{(REV)} / 117.80$$

$$F \text{ O\&M-Foreign}_{(Rev)} = \text{Rs. } 0.0651/\text{kW/Hr} * US \text{ CPI}_{(REV)} / 200 * ER_{(FREV)} / 60$$

Where:

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

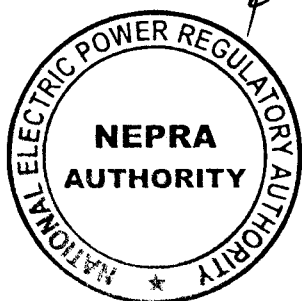
$F \text{ O\&M}_{(FREV)}$  = The revised applicable Fixed O&M Foreign Component of the Capacity Charge indexed with US CPI and Exchange rate variations.

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

$WPI_{(REF)}$  = 117.80 average quarterly wholesale price index (manufacturers) for the quarter ending April 2006 notified by Federal Bureau of Statistics

$US \text{ CPI}_{(REV)}$  = The revised average quarterly US CPI

$US \text{ CPI}_{(REF)}$  = 199.8 average quarterly US CPI for the quarter ending April 2006 as notified by the US Bureau of Labor Statistics



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$ER_{(REV)}$  = 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 of indexation for variable O & M component will be as under:

$$V \text{ O\&M-Gas}_{(REV)} = \text{Rs. } 0.1746 \text{ per kWh} * US \text{ CPI}_{(REV)} / 199.8 * ER_{(REV)} / 60$$

$$V \text{ O\&M-HSD}_{(REV)} = \text{Rs. } 0.2520 \text{ per kWh} * US \text{ CPI}_{(REV)} / 199.8 * ER_{(REV)} / 60$$

Where:

$V \text{ O\&M-Gas}_{(REV)}$  = The revised applicable Variable O&M Component of the Energy Charge indexed with US CPI and Exchange rate variations

$V \text{ O\&M-HSD}_{(REV)}$  = The revised applicable Variable O&M Component of the Energy Charge indexed with US CPI and Exchange rate variations

$US \text{ CPI}_{(REV)}$  = The revised average quarterly US CPI

$US \text{ CPI}_{(REF)}$  = 199.8 average quarterly US CPI for the quarter ending April 2006 as notified by the US Bureau of Labor Statistics

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

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

b) Adjustment for KIBOR variation

The interest part of fixed charge local 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;

$$\Delta I = P_{(REV)} * (KIBOR_{(REV)} - 9\%) / 4$$

Where:

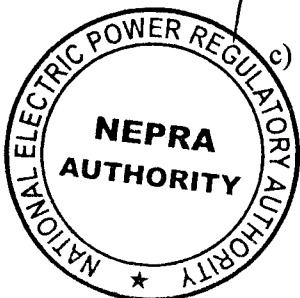
$\Delta I$  = the variation in interest charges applicable corresponding to variation in quarterly KIBOR.  $\Delta I$  can be positive or negative depending upon whether  $KIBOR_{(REV)} >$  or  $<$  9.0%. The interest payment obligation will be enhanced or reduced to the extent of  $\Delta I$  for each quarter under adjustment applicable on quarterly

$P_{(REV)}$  = 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.

Note:- Since LIBOR is fixed with respect to Foreign Loan component for the entire repayment term, there will be no adjustment on account of LIBOR variation. However, if the fixed interest rate is agreed lower than the rate used for tariff calculation, the entire benefit will be passed on to the power purchaser.

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 (OGRA). In this





regard, the variation in HPGCL's allowed rate relating to fuel cost shall be revised according to the following formula:

$$FC_{g(Rev)} = \text{Rs. } 1.7787 \text{ per kWh} * FP(Rev) / \text{Rs. } 266.83 \text{ per MMBTU}$$

Where:

$FC_{g(Rev)}$  = Revised fuel cost component of Variable Charge on gas

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

$FC_{d(Rev)}$  =  $\text{Rs. } 6.7151 \text{ per kWh} * [FP_{d(Rev)} \text{ Rs. per MMBTUs}] / \text{Rs. } 954.27 \text{ per MMBTU (Excl-GST)}$

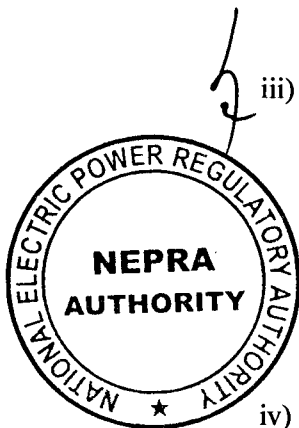
Where:

$FC_{d(Rev)}$  = Revised fuel cost component of Variable Charge on Diesel

$FP_{d(Rev)}$  = The new price of diesel as notified by the relevant Authority per Litre of fuel adjusted for NCV-GCV factor, Specific gravity and Calorific value (Gross)

Reference values used in the calculations;

HSD Fuel price with GST (GCV)	Rs. 37.29 per litre
GST	15%
HSD fuel Price without GST (GCV)	Rs. 32.43 per liter
HHV-LHV Adjustment Factor	1.06
HSD Fuel Price without GST (NCV)	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)	42,880.7 BTUs/Kg



iii) In case of adjustment in HSD fuel component, HPGCL 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 it regarding the Authenticity and validity of the information provided by HPGCL. 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. HPGCL shall be allowed immediate adjustment by the Authority within 7 days of such request with requisite certificates and verifications.

iv) 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 HPGCL's request for adjustment in accordance with the requisite indexation mechanism stipulated herein.

v) 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 HPGCL. However the change or modification shall be applicable from the date of issue of such Policy and shall not be applicable retrospectively.

**Terms and Conditions of Tariff:**

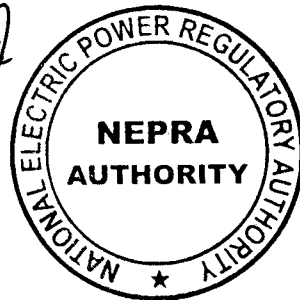
i) Use of Gas only will be considered as primary fuel.

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- 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 HPGCL which are not covered in this determination may be dealt with in the PPA according to its standard terms.

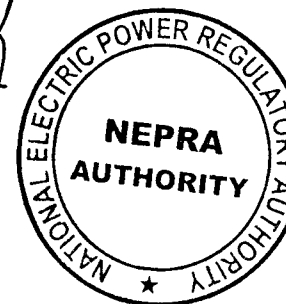
The above tariff and terms and conditions be incorporated as the specified tariff approved by the Authority pursuant to Rule 6 of the Licencing (Generation) Rules, in a PPA between HPGCL and Power Purchaser.



**HALMORE POWER GENERATION COMPANY (HPGCL)  
SPECIFIED TARIFF- PLANT OPERATION ON GAS**

Year	Energy Charge (Rs/kWh)			Capacity Charge Rs/kW per Hour												Total Tariff		
	Fuel	Variable O&M	Total	Fixed O&M Foreign	Fixed O&M Local	Insurance	W.C	ROE DC	ROE	Withholding tax on div	Sub Total	Debt Servicing Foreign	Debt Servicing Local	Total Debt Servicing	Total Capacity charge		Rs/kWh	
															Rs/kW/hr	Rs/kWh at 60% PF		
1	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659	
2	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659	
3	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659	
4	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659	
5	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659	
6	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659	
7	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659	
8	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659	
9	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659	
10	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	0.5864	0.1803	0.7667	1.3276	2.2126	4.1659	
11	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
12	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
13	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
14	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
15	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
16	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
17	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
18	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
19	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
20	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
21	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
22	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
23	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
24	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
25	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
26	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
27	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
28	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
29	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
30	1.7787	0.1746	1.9533	0.0651	0.0434	0.0739	0.0163	0.0600	0.2768	0.0253	0.5609	-	-	-	0.5609	0.9348	2.8881	
<b>Levelised</b>	<b>1.7787</b>	<b>0.1746</b>	<b>1.9533</b>													<b>1.0606</b>	<b>1.7677</b>	<b>3.7210</b>

Cents 6.202



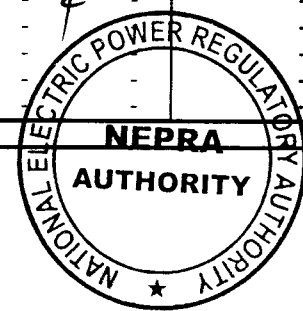
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**HALMORE POWER GENERATION COMPANY (HPGCL)  
SPECIFIED TARIFF- PLANT OPERATION ON HSD**

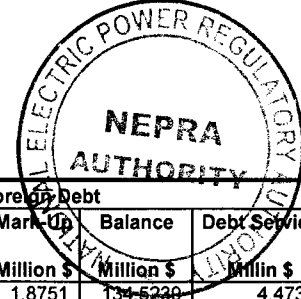
Year	Energy Charge (Rs/kWh)			Capacity Charge Rs/kW per Hour											Total Tariff		
	Fuel	Variable O&M	Total	Fixed O&M Foreign	Fixed O&M Local	Insurance	W.C	ROE DC	ROE	Withholding tax on div	Sub Total	Debt Servicing Foreign	Debt Servicing Local	Total Debt Servicing	Total Capacity charge		Rs/kWh
															Rs/kW/Hr	Rs/kWh at 60% PF	
1	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107
2	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107
3	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107
4	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107
5	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107
6	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107
7	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107
8	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107
9	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107
10	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	0.5864	0.1803	0.7667	1.3462	2.2436	9.2107
11	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
12	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
13	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
14	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
15	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
16	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
17	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
18	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
19	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
20	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
21	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
22	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
23	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
24	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
25	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
26	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
27	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
28	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
29	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
30	6.7151	0.2520	6.9671	0.0651	0.0434	0.0739	0.0349	0.0600	0.2768	0.0253	0.5795	-	-	-	0.5795	0.9658	7.9329
<b>Levelised</b>			<b>6.9671</b>												<b>1.0792</b>	<b>1.7987</b>	<b>8.7658</b>



Cents 14.6097

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HalmorePower Generation Company Limited  
Debt Servicing Schedule

Period	Local Debt					Annual Principal Repayment Rs./Kw/Hr.	Annual Interest Rs./Kw/Hr.	Annual Debt Servicing Rs./Kw/Hr.	Period	Foreign Debt					Annual Principal Repayment Rs./Kw/Hr.	Annual Interest Rs./Kw/Hr.	Annual Debt Servicing Rs./Kw/Hr.
	Principal	Repayment	Mark-Up	Balance	Debt Service					Principal	Repayment	Mark-Up	Balance	Debt Service			
	Million \$	Million \$	Million \$	Million \$	Millin \$					Million \$	Million \$	Million \$	Million \$	Millin \$			
1st Q	31.7891	0.4216	0.9537	31.3675	1.3753	0.0138	0.0313	0.0451	1st Q	137.1222	2.5984	1.8751	134.5239	4.4735	0.0852	0.0615	0.1466
2nd Q	31.3675	0.4342	0.9410	30.9333	1.3753	0.0142	0.0308	0.0451	2nd Q	134.5239	2.6339	1.8396	131.8900	4.4735	0.0863	0.0603	0.1466
3rd Q	30.9333	0.4473	0.9280	30.4860	1.3753	0.0147	0.0304	0.0451	3rd Q	131.8900	2.6699	1.8036	129.2201	4.4735	0.0875	0.0591	0.1466
4th Q	30.4860	0.4607	0.9146	30.0253	1.3753	0.0151	0.0300	0.0451	4th Q	129.2201	2.7064	1.7671	126.5137	4.4735	0.0887	0.0579	0.1466
<b>1</b>	<b>31.7891</b>	<b>1.7638</b>	<b>3.7373</b>	<b>30.0253</b>	<b>5.5011</b>	<b>0.0578</b>	<b>0.1225</b>	<b>0.1803</b>	<b>1</b>	<b>137.1222</b>	<b>10.6085</b>	<b>7.2854</b>	<b>126.5137</b>	<b>17.8940</b>	<b>0.3477</b>	<b>0.2388</b>	<b>0.5864</b>
1st Q	30.0253	0.4745	0.9008	29.5508	1.3753	0.0156	0.0295	0.0451	1st Q	126.5137	2.7434	1.7301	123.7703	4.4735	0.0899	0.0567	0.1466
2nd Q	29.5508	0.4887	0.8865	29.0620	1.3753	0.0160	0.0291	0.0451	2nd Q	123.7703	2.7809	1.6926	120.9893	4.4735	0.0911	0.0555	0.1466
3rd Q	29.0620	0.5034	0.8719	28.5586	1.3753	0.0165	0.0286	0.0451	3rd Q	120.9893	2.8190	1.6545	118.1704	4.4735	0.0924	0.0542	0.1466
4th Q	28.5586	0.5185	0.8568	28.0401	1.3753	0.0170	0.0281	0.0451	4th Q	118.1704	2.8575	1.6160	115.3128	4.4735	0.0936	0.0530	0.1466
<b>2</b>	<b>30.0253</b>	<b>1.9852</b>	<b>3.5159</b>	<b>28.0401</b>	<b>5.5011</b>	<b>0.0651</b>	<b>0.1152</b>	<b>0.1803</b>	<b>2</b>	<b>126.5137</b>	<b>11.2008</b>	<b>6.6931</b>	<b>115.3128</b>	<b>17.8940</b>	<b>0.3671</b>	<b>0.2193</b>	<b>0.5864</b>
1st Q	28.0401	0.5341	0.8412	27.5060	1.3753	0.0175	0.0276	0.0451	1st Q	115.3128	2.8966	1.5769	112.4162	4.4735	0.0949	0.0517	0.1466
2nd Q	27.5060	0.5501	0.8252	26.9560	1.3753	0.0180	0.0270	0.0451	2nd Q	112.4162	2.9362	1.5373	109.4800	4.4735	0.0962	0.0504	0.1466
3rd Q	26.9560	0.5666	0.8087	26.3894	1.3753	0.0186	0.0265	0.0451	3rd Q	109.4800	2.9764	1.4971	106.5037	4.4735	0.0975	0.0491	0.1466
4th Q	26.3894	0.5836	0.7917	25.8058	1.3753	0.0191	0.0259	0.0451	4th Q	106.5037	3.0171	1.4564	103.4866	4.4735	0.0989	0.0477	0.1466
<b>3</b>	<b>28.0401</b>	<b>2.2343</b>	<b>3.2667</b>	<b>25.8058</b>	<b>5.5011</b>	<b>0.0732</b>	<b>0.1071</b>	<b>0.1803</b>	<b>3</b>	<b>115.3128</b>	<b>11.8262</b>	<b>6.0678</b>	<b>103.4866</b>	<b>17.8940</b>	<b>0.3876</b>	<b>0.1989</b>	<b>0.5864</b>
1st Q	25.8058	0.6011	0.7742	25.2047	1.3753	0.0197	0.0254	0.0451	1st Q	103.4866	3.0583	1.4152	100.4283	4.4735	0.1002	0.0464	0.1466
2nd Q	25.2047	0.6191	0.7561	24.5855	1.3753	0.0203	0.0248	0.0451	2nd Q	100.4283	3.1001	1.3734	97.3282	4.4735	0.1016	0.0450	0.1466
3rd Q	24.5855	0.6377	0.7376	23.9478	1.3753	0.0209	0.0242	0.0451	3rd Q	97.3282	3.1425	1.3310	94.1856	4.4735	0.1030	0.0436	0.1466
4th Q	23.9478	0.6568	0.7184	23.2910	1.3753	0.0215	0.0235	0.0451	4th Q	94.1856	3.1855	1.2880	91.0001	4.4735	0.1044	0.0422	0.1466
<b>4</b>	<b>25.8058</b>	<b>2.5148</b>	<b>2.9863</b>	<b>23.2910</b>	<b>5.5011</b>	<b>0.0824</b>	<b>0.0979</b>	<b>0.1803</b>	<b>4</b>	<b>103.4866</b>	<b>12.4865</b>	<b>5.4075</b>	<b>91.0001</b>	<b>17.8940</b>	<b>0.4092</b>	<b>0.1772</b>	<b>0.5864</b>
1st Q	23.2910	0.6765	0.6987	22.6144	1.3753	0.0222	0.0229	0.0451	1st Q	91.0001	3.2291	1.2444	87.7711	4.4735	0.1058	0.0408	0.1466
2nd Q	22.6144	0.6968	0.6784	21.9176	1.3753	0.0228	0.0222	0.0451	2nd Q	87.7711	3.2732	1.2003	84.4978	4.4735	0.1073	0.0393	0.1466
3rd Q	21.9176	0.7177	0.6575	21.1999	1.3753	0.0235	0.0215	0.0451	3rd Q	84.4978	3.3180	1.1555	81.1798	4.4735	0.1087	0.0379	0.1466
4th Q	21.1999	0.7393	0.6360	20.4606	1.3753	0.0242	0.0208	0.0451	4th Q	81.1798	3.3634	1.1101	77.8165	4.4735	0.1102	0.0364	0.1466
<b>5</b>	<b>23.2910</b>	<b>2.8304</b>	<b>2.6707</b>	<b>20.4606</b>	<b>5.5011</b>	<b>0.0928</b>	<b>0.0875</b>	<b>0.1803</b>	<b>5</b>	<b>91.0001</b>	<b>13.1836</b>	<b>4.7103</b>	<b>77.8165</b>	<b>17.8940</b>	<b>0.4321</b>	<b>0.1544</b>	<b>0.5864</b>
1st Q	20.4606	0.7615	0.6138	19.6991	1.3753	0.0250	0.0201	0.0451	1st Q	77.8165	3.4094	1.0641	74.4071	4.4735	0.1117	0.0349	0.1466
2nd Q	19.6991	0.7843	0.5910	18.9148	1.3753	0.0257	0.0194	0.0451	2nd Q	74.4071	3.4560	1.0175	70.9511	4.4735	0.1133	0.0333	0.1466
3rd Q	18.9148	0.8078	0.5674	18.1070	1.3753	0.0265	0.0186	0.0451	3rd Q	70.9511	3.5032	0.9703	67.4479	4.4735	0.1148	0.0318	0.1466
4th Q	18.1070	0.8321	0.5432	17.2749	1.3753	0.0273	0.0178	0.0451	4th Q	67.4479	3.5511	0.9224	63.8968	4.4735	0.1164	0.0302	0.1466
<b>6</b>	<b>20.4606</b>	<b>3.1856</b>	<b>2.3154</b>	<b>17.2749</b>	<b>5.5011</b>	<b>0.1044</b>	<b>0.0759</b>	<b>0.1803</b>	<b>6</b>	<b>77.8165</b>	<b>13.9197</b>	<b>3.9743</b>	<b>63.8968</b>	<b>17.8940</b>	<b>0.4562</b>	<b>0.1302</b>	<b>0.5864</b>
1st Q	17.2749	0.8570	0.5182	16.4179	1.3753	0.0281	0.0170	0.0451	1st Q	63.8968	3.5997	0.8738	60.2970	4.4735	0.1180	0.0286	0.1466
2nd Q	16.4179	0.8827	0.4925	15.5352	1.3753	0.0289	0.0161	0.0451	2nd Q	60.2970	3.6489	0.8246	56.6481	4.4735	0.1196	0.0270	0.1466
3rd Q	15.5352	0.9092	0.4661	14.6260	1.3753	0.0298	0.0153	0.0451	3rd Q	56.6481	3.6988	0.7747	52.9493	4.4735	0.1212	0.0254	0.1466
4th Q	14.6260	0.9365	0.4388	13.6895	1.3753	0.0307	0.0144	0.0451	4th Q	52.9493	3.7494	0.7241	49.1999	4.4735	0.1229	0.0237	0.1466
<b>7</b>	<b>17.2749</b>	<b>3.5855</b>	<b>1.9156</b>	<b>13.6895</b>	<b>5.5011</b>	<b>0.1175</b>	<b>0.0628</b>	<b>0.1803</b>	<b>7</b>	<b>63.8968</b>	<b>14.6969</b>	<b>3.1971</b>	<b>49.1999</b>	<b>17.8940</b>	<b>0.4816</b>	<b>0.1048</b>	<b>0.5864</b>
1st Q	13.6895	0.9646	0.4107	12.7249	1.3753	0.0316	0.0135	0.0451	1st Q	49.1999	3.8007	0.6728	45.3992	4.4735	0.1246	0.0220	0.1466
2nd Q	12.7249	0.9935	0.3817	11.7314	1.3753	0.0326	0.0125	0.0451	2nd Q	45.3992	3.8527	0.6208	41.5465	4.4735	0.1263	0.0203	0.1466
3rd Q	11.7314	1.0233	0.3519	10.7080	1.3753	0.0335	0.0115	0.0451	3rd Q	41.5465	3.9053	0.5681	37.6412	4.4735	0.1280	0.0186	0.1466
4th Q	10.7080	1.0540	0.3212	9.6540	1.3753	0.0345	0.0105	0.0451	4th Q	37.6412	3.9588	0.5147	33.6824	4.4735	0.1297	0.0169	0.1466
<b>8</b>	<b>13.6895</b>	<b>4.0355</b>	<b>1.4656</b>	<b>9.6540</b>	<b>5.5011</b>	<b>0.1323</b>	<b>0.0480</b>	<b>0.1803</b>	<b>8</b>	<b>49.1999</b>	<b>15.5175</b>	<b>2.3765</b>	<b>33.6824</b>	<b>17.8940</b>	<b>0.5085</b>	<b>0.0779</b>	<b>0.5864</b>
1st Q	9.6540	1.0857	0.2896	8.5683	1.3753	0.0356	0.0095	0.0451	1st Q	33.6824	4.0129	0.4606	29.6695	4.4735	0.1315	0.0151	0.1466
2nd Q	8.5683	1.1182	0.2571	7.4501	1.3753	0.0366	0.0084	0.0451	2nd Q	29.6695	4.0678	0.4057	25.6017	4.4735	0.1333	0.0133	0.1466
3rd Q	7.4501	1.1518	0.2235	6.2983	1.3753	0.0377	0.0073	0.0451	3rd Q	25.6017	4.1234	0.3501	21.4784	4.4735	0.1351	0.0115	0.1466
4th Q	6.2983	1.1863	0.1890	5.1120	1.3753	0.0389	0.0062	0.0451	4th Q	21.4784	4.1798	0.2937	17.2986	4.4735	0.1370	0.0096	0.1466
<b>9</b>	<b>9.6540</b>	<b>4.5420</b>	<b>0.9591</b>	<b>5.1120</b>	<b>5.5011</b>	<b>0.1488</b>	<b>0.0314</b>	<b>0.1803</b>	<b>9</b>	<b>33.6824</b>	<b>16.3838</b>	<b>1.5102</b>	<b>17.2986</b>	<b>17.8940</b>	<b>0.5369</b>	<b>0.0495</b>	<b>0.5864</b>
1st Q	5.1120	1.2219	0.1534	3.8901	1.3753	0.0400	0.0050	0.0451	1st Q	17.2986	4.2369	0.2366	13.0616	4.4735	0.1389	0.0078	0.1466
2nd Q	3.8901	1.2586	0.1167	2.6315	1.3753	0.0412	0.0038	0.0451	2nd Q	13.0616	4.2949	0.1786	8.7668	4.4735	0.1408	0.0059	0.1466
3rd Q	2.6315	1.2963	0.0789	1.3352	1.3753	0.0425	0.0026	0.0451	3rd Q	8.7668	4.3536	0.1199	4.4131	4.4735	0.1427	0.0039	0.1466
4th Q	1.3352	1.3352	0.0401	(0.0000)	1.3753	0.0438	0.0013	0.0451	4th Q	4.4131	4.4131	0.0603	0.0000	4.4735	0.1446	0.0020	0.1466
<b>10</b>	<b>5.1120</b>	<b>5.1120</b>	<b>0.3891</b>	<b>(0.0000)</b>	<b>5.5011</b>	<b>0.1675</b>	<b>0.0128</b>	<b>0.1803</b>	<b>10</b>	<b>17.2986</b>	<b>17.2986</b>	<b>0.5954</b>	<b>0.0000</b>	<b>17.8940</b>	<b>0.5669</b>	<b>0.0195</b>	<b>0.5864</b>

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