

## National Electric Power Regulatory Authority

### Islamic Republic of Pakistan

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No. NEPRA/R/TRF-53/SPL-2006/6254-56 August 3, 2006

Subject:

Decision in respect of Motion for Leave for Review filed under

Rule 16(6) of Tariff Rules on 26 June, 2006 by Saif Power Ltd. (SPL)

(Case No. NEPRA/TRF-53/SPL-2006)

Dear Sir,

In continuation of this office letter No. NEPRA/TRF-53/SPL-2006/5168-70 dated 15-06-2006 whereby determination of the Authority on Saif Power Ltd. was sent. Please find enclosed herewith the decision of the Authority (17 pages) along with Annexes-I & II in the matter of subject Motion filed on 26 June, 2006 by Saif Power Ltd. against Case No. NEPRA/TRF-53/SPL-2006.

- 2. Subsequent to the culmination of proceedings in the subject Motion for Leave for Review and the issuance/announcement of decision of the Authority (17 pages) alongwith Annexes-I &II is being intimated to the Federal Government for the purpose of notification of the approved tariff, in the official Gazette pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997) read with Rule 16(11) of the National Electric Power Regulatory Authority Tariff (Standards and Procedure) Rules, 1998.
- 3. Please be informed that the Reference Tariff earlier intimated vide para 99 of the Authority's determination dated June 15, 2006, stands revised to the extent as detailed in para-19 (08 pages) of the decision of the Authority on the subject motion along with Annexes-I & II (02 page) needs to be notified in the official Gazette.

DA/As above.

The Secretary, Cabinet Division, Government of Pakistan Cabinet Secretariat, Islamabad



(Mahjoob Ahmad Mirza)

CC:

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

2. Secretary, Ministry of Finance, Islamabad.

# Decision of the Authority in the Matter of Motion for Leave for Review filed by Saif Power Limited (SPL) (Case No. NEPRA/TRF-53/SPL-2006)

M/s Saif Power Limited filed motion for recalculation under Rule 16(5) of Tariff Standards and Procedure Rule 1998 on June 20, 2006. The Authority considered the motion for recalculation in its meeting on June 23, 2006 and observed that there was no inadvertent calculation error in the determination therefore the SPL's request could not be processed under Rule 16(5). The Authority also observed that some of the issues were the subject of motion for leave for review. On June 26, 2006 SPL filed a motion for leave for review and requested for Authority's decision on the following issues.

- A. Cost of Plant Operation on HSD
- B. Recalculation of HSD Fuel Cost Component
- C. Return on Equity (ROE)
- D. Calculation of Withholding Tax
- E. Calculation of Fixed O&M
- F. Calculation of Insurance During Construction
- G. Indexation Factors
- 2. Prior to the date of hearing SPL vide its letter No. SPL/06-07/NEPRA-37 dated July 21, 2006 requested the Authority to consider its motion for leave for review in light of their following set of assumptions:
  - a) Company's Motion for Recalculation will be decided favourably providing for;
    - (i) Calculation of HSD Fuel Cost Component; calculation of withholding tax component; calculation of Fixed O&M cost and,
    - (ii) NEPRA will seek clarification from PPIB/other relevant Agency on the subject of indexation on Return on Equity and allow the same as it is the Company's understanding and interpretation of Power Policy of 2002 that inflation indexation is allowable on local component of equity;
    - iii) NEPRA's decision will specify that in the event any of the issues outlined in our Motion for Leave for Review are either (i) addressed by GOP through a policy decision or otherwise (ii) and/or NEPRA determines favourably in the case of any other power projects and/or (iii) the terms of any Concession Agreements (IA, PPA or GSA) provide such relief to any other IPP, then the Company would be allowed such relief(s) ex post facto as of right;





- iv) NEPRA's decision will further provide a categorical direction to the Power Purchaser to address/resolve the issue relating to the requirement for working/bridge financing cost of HSD operation in the PPA. In this regard, the Company proposes the following: (i) HSD cost be paid directly by the Power Purchaser to the Fuel Supplier whenever there is a requirement for the power plant to burn HSD; or, the Power Purchaser may make payment of such HSD cost to the Company on the same day as is required for the Company to make payment to the HSD supplier; and (ii) full Capacity payments will be made in advance instead of 70% as in the current draft of PPA;
- v) The Company will make every effort to cause its potential EPC contractor to optimize the efficiency on HSD operation. However, till date, the Company has been guaranteed an efficiency of 47.78%. The Company assures NEPRA that in case such efficiency is further improved by the EPC contractor, the Company will pass the entire benefit to the Power Purchaser. In the meantime, the Company would request NEPRA that the determination at this sage may be done on the basis of 47.78% with any subsequent improvement to be passed on to the Power Purchaser.
- 3. Upon consideration of SPL's submissions, the Authority observed that issues on which decision of the Authority is required can be considered without conducting a formal hearing, particularly when CPPA has also filed its comments on SPL's tariff determination requesting for reconsideration of the Authority. Issue wise SPL's submission and Authority decision is as under:
- a). Company's Motion for Recalculation
- i) Calculation of HSD Fuel cost component
- 4. SPL submitted that the fuel cost component for HSD has been incorrectly calculated at Rs. 6.3325 per kWh, which should be changed to Rs. 6.833 per kWh on account of the following reasons:
  - A calorific value of 44,045 BTUs per kg cannot be on LHV. All the prominent suppliers are providing fuel based on calorific value 18,230 BTU/Lb and specific gravity of 0.84 which is evident from



2/



2

laboratory reports as well as from the letter from Pakistan State Oil Limited.

- O The efficiency (heat rate) is not entirely directly related to machine. The heat balanced diagram of Orient, Sapphire and Saif would naturally be different based on the relevant site conditions, steam turbine and balance of plant used and complete combined cycle power plant design unique to the EPC contractor. The heat balance diagram of Orient, SECL and SPL are in fact different.
- 5. The Authority while considering SPL's request for recalculation of fuel cost component on HSD operation observed that SPL has referred the calculation of fuel cost component determined for Upfront Tariff which is not relevant in the instant case. In the case of SPL, calculations of different tariff components are based on the assumptions particular to its case and against which SPL has filed Motion for Recalculation.
- 6. The Authority has also noted SPL's contention that calorific value of 44,045 BTU per kg for HSD as LHV is not correct. The reference calorific value adopted by the Authority is HHV and not LHV and has been used correctly while calculating the fuel cost component in case of plant operation on HSD.
- 7. The Authority based its calculations of fuel cost component for HSD on the reference values of specific gravity and calorific value given in the Pakistan Energy Yearbook 2005. The numbers indicated in the Pakistan Energy Yearbook published by HDIP were considered authentic and reliable. Saif Power submitted test report to HDIP seeking its opinion in the matter. In response to Saif's query HDIP vide letter No.HDIP/LAB-1/2006 has confirmed as follows:

Gross Calorific Value (GCV) 19,400 Btu/lb Net Calorific Value (NCV) 18,267 Btu/lb Specific Gravity at 15 °c or 15.6 °c 0.84

According to HDIP the conversion of Gross to Net Calorific Value has been made according to the following formula;

4,309 + 0.7195 x GCV

8. According to HDIP the reference calorific value appearing in the Energy Year-Book was established form the tests carried out in HDIP's laboratory at a flash point of 65 °C. The Authority has been further informed the calorific value of HSD is dependent upon the flash point and any variation in flash point would change the calorific value. This is also confirmed from the test report attached by SPL.



TOWN ELECTRIC

According to the test report two samples were tested at flash point of 58 °C and 56°C; the resultant average gross calorific value BTU per Lb was 19,425 BTU. Based upon the evidence presented by SPL the adjustment in the reference values is accepted. Accordingly the reference specific gravity and calorific value for the purpose of calculation of fuel cost component of Energy Charge in case of plant operation on HSD are being revised as follows:

HSD Fuel price with GST (GCV)

GST

HSD Fuel price without GST (GCV)

HSD Fuel price without GST (GCV)

HSD Fuel price without GST (NCV)

HSD Fuel Price without GST

Rs.37.29 per litre

Rs.32.43 per litre

1.06

Rs.34.37 per litre

Rs.954.27per 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

9. The Authority considers that any variation in aforementioned variables which are beyond petitioner's control has an impact on fuel cost for which an adjustment mechanism is required. The Authority has therefore decided to provide a mechanism of adjustment in HSD fuel component. SPL 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 SPL. In case of any dispute or discrepancy the power purchaser shall seek third party verification. In this regard HDIP is nominated for the settlement of technical issues; and OGRA for price issues. SPL shall be allowed immediate adjustment by the Authority within 7 days of receipt of such request with requisite certificates and verifications.

### Calculation of Withholding Tax

10. The Authority has considered SPL's request regarding calculation of withholding tax. The Authority considers that the calculations of ROE and withholding tax in the instant case are in line with already decided cases of Orient Power and Star Power. Sapphire has also not





raised this issue. The Authority therefore does not find any ground to revise its earlier decision and decides to maintain the same.

### Calculation of Fixed O&M

11. SPL submitted that the Fixed O&M cost seems to have been wrongly calculated as US\$ 3.31 million per year instead of US\$ 3.4 million per year. SPL clarified that NEPRA had inadvertently taken the fee of US\$ 1 million per year as a gross sum of US\$ 5 million spread over a 48,000 hrs cycle. The fact is that the Company is entering into Long Term Service Agreement with LTSA contractor which is charging a fixed fee of US\$ 1 million per year for the services. This fee has no direct relation to the operation cycle of 48,000 hrs ending in 5.5 year on 100% Plant Factor. In fact, the LTSA contractor will charge US\$ 1 million each year as a fixed fee irrespective of the Plant Factor. Therefore, the component of Fixed O&M which seems to have been inadvertently worked out as Rs. 79.2597 per kW per month may please be changed to Rs. 81.35/kW/month. After considering SPL's request the Authority allows the fixed cost of US\$ one million per year.

### ii) Indexation of ROE

12. The Authority considers that the issue of indexation of ROE with CPI has been comprehensively addressed in the determination dated June 15, 2006 and no new ground has been submitted by the petitioner in support thereof. The Authority is very clear on the issue and considers that no further clarification in the matter is required from PPIB.

### iii) Change in Government Policy

13. With reference to belated request of SPL dated July 21, 2006 for consideration of its motion for leave for review under particular assumptions the Authority observed that such conditionalties cannot be imposed for the implementation of NEPRA's decision. Changes in GoP policies do not fall within the prerogative of NEPRA and it is the sole domain of the GoP. Hence the Authority considers that SPL's request is not justified and against the settled legal principles. Under







the NEPRA Act, the Authority decides in light of the relevant rules and regulations taking due regard of the prevalent policy and guidelines of the GoP. The Authority understands that GoP policy is announced for a particular period keeping in view the prevailing circumstances, applicable to anticipated projects. The cases decided under one policy cannot be adjusted/reopened under an other policy. The Authority's decisions are project specific; therefore SPL's request for making provision to get concession allowed to a later project(s) is not acceptable. In case GOP issues a policy which is applicable equally to the IPPs coming under a previous GOP policy(ies); the Authority will reconsider the issue outlined in the Motion for Leave for Review.

14. As regards settlement of terms under IA, PPA and GSA, it is a matter between the parties to these agreements and required to execute such agreements in accordance with NEPRA's determination and the applicable law. It is, therefore, considered just and appropriate to determine the tariff for the petitioner in the terms mentioned in the Order.

### iv) Additional Working Capital Requirement

SPL stated that it would like to bring to the attention of the Authority 15. a major issue that was not covered in the original Tariff Petition due to the facts that the drafts of the Security Package (in particular that of Power Purchase Agreement) was not available with the Company at that time and Company had not negotiated the payment terms with Liquid Fuel Supplier. According to SPL the Authority has already determined a working capital cost for High Speed Diesel (HSD) storage by the Company during the gas and non-gas months. The required threshold of stock is required to be maintained at all times for emergency purposes whereas actual consumption of HSD for each period has to be made from HSD purchased over and above such stock. SPL expects to incur a bridge financing cost of around US\$1.065 million for a cycle of 75 days period between the procurement of HSD and receipt of energy payment from NTDC, which will continue on a roll over basis as long as the Plant is operated on HSD. SPL has further stated that this cost of working





capital is dependent on dispatch and subsequent consumption of HSD; therefore this cost be incorporated as a Variable Component by the name of "Working Capital Variable". SPL has proposed Rs. 0.1908/kWh (Rs.71.784/209000kW/75days/24hours). It is asserted that under the proposed mechanism the Power Purchaser's liability will only arise when there is a dispatch and HSD is consumed.

- 16. The Authority has considered the petitioner's proposal regarding compensation for additional cost on account of bridge financing for additional working capital on HSD operation. The Authority considers that the additional requirement of Working Capital can be assessed on the basis of Company's overall cash flow. The working on the basis only one component cannot be considered a realistic approach for determining additional Working Capital Requirement.
- 17. The Authority observed that the underlying assumption for calculating cost of bridge financing that plant will operate at 100% plant factor on HSD fuel is not realistic and the cost of bridge financing thus worked out is very high. In Authority's opinion plant on HSD fuel will operate in the range of 25% to 33% plant factor and the financing cost will be much low. In Authority's opinion there are certain tariff components which are paid in advance to the Company i.e. return on equity, return on equity during construction and debt servicing etc., and the company would earn extra profit on it. This extra earning can to some extent reduce the additional cost of bridge financing. The requirement of bridge financing can further be avoided through reduction in billing cycle by the power purchaser in case of plant operation on HSD. The power purchaser should address this issue for making necessary provisions in the PPA.

### Thermal Efficiency on HSD

18. The reasons given by the petitioner in favour of different plants with similar machines operating on HSD to have different thermal efficiency; do not appear to be valid because the same argument should also hold good in case of plant operation on gas. Since the thermal efficiency of all the plants i.e. Orient, Saif and Sapphire on gas is the same therefore the thermal efficiency on HSD operation should also be the same. The Authority considers that the thermal



1/



efficiency of a plant has great bearing on the tariff therefore it would be appropriate to make adjustment on the basis of actual heat rate test on site conditions each year. Hence the Authority has decided to maintain its earlier decision regarding thermal efficiency of 48.5% in case of plant operation on HSD.

### **ORDER**

19. Pursuant to Rule 6 of the NEPRA Licensing (Generation) Rules 2000, Saif Power 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

Reference farili											
Tariff Components	Year 1 to 10	Year 11 to 30	Indexation								
Capacity Charge PKR/kW/Hour)  O&M Foreign  O&M Local  Cost of Working Capital *  Insurance  Debt Service  Return on Equity  ROE during Construction	0.0651 0.0434 0.0164 0.0637 0.8566 0.1881 0.0153	0.0651 0.0434 0.0164 0.0637 - 0.1881 0.0153	US\$ /PKR WPI Nil US\$ /PKR KIBOR NIL NIL								
Total Capacity Charge	1.2486	0.3920									
* In case of plant operation on F on 15 days inventory level basis	ISD, the cost of which is Rs. 0.0	f working capital s 0351Rs./kW/hour	shall be paid								
A) Energy Charge on Operation on Gas Rs./kWh	1 7707	1 7707	Fuel Price								

1.7787 Fuel Price 1.7787 Fuel Cost Component 0.1746 0.1746 to Rupee Variable O&M B) Energy Charge on Operation on HSD Rs./kWh Fuel Cost Component 6.7153 Fuel Price 6.7153 0.2520 0.2520 \$ to Rupee Variable O&M

- 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;



2/



### I. 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 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. If the IDC is established higher than 208.965 MW, the adjustments shall be made according to the following formula:

 $= 0.0654/\text{tested IDC} \times 208.965\text{MW}$ Revised O&M Foreign i) Revised O&M Local  $= 0.0434/\text{tested IDC} \times 208.965MW$ ii) iii) Cost of Working Capital = 0.0164/ tested IDC x 208.965MW  $= 0.0637/\text{tested IDC} \times 208.965\text{MW}$ iii) Insurance = 0.8566/tested IDC x 208.965MW Debt Service iv) = 0.1881/tested IDC x 208.965MW Return on Equity vi) ROE during Construction = 0.0153/tested IDC x 208.965MW = 0.1528/tested IDC x 208.965MW vii) Variable O&M

### b) 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 SPL according to the following formula;

Insurance (Revised) = AIC/\$1.94 million x AP

Where:

AIC = Adjusted Insurance Component as per IDC Test

AP = Actual Premium

# c) Adjustment due to custom duties and Interest during Construction

Debt Service, Return on Equity and ROE during construction shall be adjusted on account of actual variation in customs duties, drawdown and Interest During Construction with reference to the estimated figures of USD 5.04 million and USD 16.84 million respectively. SPL







shall submit the relevant documents to NEPRA within 7 days of COD for adjustment of relevant tariff components.

### d) <u>Adjustment in project cost due to variation in Dollar/Rupee</u> 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. SPL's final reference tariff table shall be revised on COD to incorporate all the permissible adjustment during construction period.

### II. Pass-Through Items

No provision for income tax has been accounted for in the tariff. If SPL is obligated to pay any tax on its ROE, the exact amount paid by the company may be reimbursed by CPPA to SPL 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 proposed in the Reference Tariff. Furthermore, in such a scenario, SPL may also submit to CPPA details of any tax shield savings and CPPA will deduct the amount of these savings from its payment to SPL 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:

Withholding Tax Payable = [15% \* (E(Ref) - E(Red))] \* 7.5%

Where:

E(Ref) = Reference Equity (US\$37.681 million x 60)

E(Red) = Equity Redeemed





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) <u>Indexation applicable to O&M</u>

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 & July1 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:

#### (i) Fixed O&M

 $F O\&M_{(RWPI)} = Rs.0.0434 \text{ per kW per Hour * WPI}_{(REV)} / 117.80$ 

 $F O M_{(RE)} = Rs. 0.0654 \text{ per kW per Hour * } ER_{(REV)} / 60$ 

Where:

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

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

WPI<sub>(REV)</sub> = the Revised wholesale Price Index (manufactures)





Reference WPI = 117.80 wholesale price index (manufactures) of April 2006 notified by Federal Bureau of Statistics

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

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

### (ii) Variable O&M

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

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

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

### b) 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;

 $\Delta I = P_{(REV)} * (KIBOR_{(REV)} - 9.05\%) / 4$ 

Where:

 $\Delta$  I = the variation in interest charges applicable corresponding to variation in KIBOR.  $\Delta$  I can be positive or negative depending upon whether





KIBOR REV > or < 9.05%. 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 1st installment is due after availing the grace period.

### 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 SPL's allowed rate relating to fuel cost shall be revised according to the following formula:

FCg(Rev)	=	Rs.1.7787 per kWh * FPg(Rev)/Rs. 266.83 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. 6.7153 per kWh * [FPd(Rev)Rs.per MMBTUs]/ Rs.954.27 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 litre
HHV-LHV Adjustment Factor	1.06
HSD Fuel price without GST (NCV)	Rs.34.37 per litre
HSD Fuel Price without GST	Rs.954.27per 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, SPL 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 SPL. 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. SPL shall be allowed immediate adjustment by the Authority within 7 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 SPL'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 SPL. 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 SPL achieves Commercial Operation Date (COD) prior to October 31<sup>st</sup>, 2008, an incentive equivalent to Rs. 0.1795 per kW per hour shall be paid an addition to the normal capacity payment during the period commencing from COD till October 31<sup>st</sup>, 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 SPL 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 SPL and CPPA.

Nasiruddin Ahmed Member Nasiveldi Sund

Zafar Ali Khan Member Aller 3/8/0t

Saeed uz Zafar Chairman



### Annexure I

### SAIF POWER GENERATION PLANT OPERATION ON GAS

	Variable	e Charge (R	s./kWh)	Capacity Charge (Rs./kW/Month)							Total				
Year	Fuel	Variable O&M	Total	Escalable (Fixed O&M) Foreign	Escalable (Fixed O&M) Local	Financing Cost on Working Capital	Escalable (Insurance)	Return on Equity	Return on	· Withholding	Loan Repayment	Interest Charges	Total	Fixed costs at 60% Plant Factor Rs. / kWh	¢/kWh
1	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	0.2734	0.5833	1.2638	4.0597	6.7662
2	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	0.3078	0.5488	1.2638	4.0597	6.7662
3	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	0.3467	0.5100	1.2638	4.0597	6.7662
4	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	0.3903	0.4663	1.2638	4.0597	6.7662
5	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	0.4396	0.4171	1.2638	4.0597	6.7662
6	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	0.4950	0.3617	1.2638	4.0597	6.7662
7	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	0.5574	0.2993	1.2638	4.0597	6.7662
8	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	0.6276	0.2290	1.2638	4.0597	6.7662
. 9	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	0.7067	0.1499	1.2638	4.0597	6.7662
10	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	0.7958	0.0608	1.2638	4.0597	6.7662
11	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	-	-	0.4072	2.6320	4.3866
12	1,7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	-	-	0.4072	2.6320	4.3866
13	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	-	-	0.4072	2.6320	4.3866
14	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	-	-	0.4072	2.6320	4.3866
15	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	-	- 1	0.4072	2.6320	4.3866
16	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	-	-	0.4072	2.6320	4.3866
17	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	-	-	0.4072	2.6320	4.3866
18	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	-	-	0.4072	2.6320	4.3866
19	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	-	-	0.4072	2.6320	4.3866
20	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	-	-	0.4072	2.6320	4.3866
21	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	-	-	0.4072	2.6320	4.3866
22	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	-	-	0.4072	2.6320	4.3866
23	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	-	-	0.4072	2.6320	4.3866
24	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	-	-	0.4072	2.6320	4.3866
25	1.7787	0.1746	1.9533	0.0651	0.0434	0.0164	0.0637	0.1881	0.0152	0.0153	-	-	0.4072	2.6320	4.3866
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Levelized Tariff (1-30 Years)

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0.2936



0.2648



4.3866

4.3866

4.3866

4.3866

4.3866

5.9376





0.4072

0.4072

0.4072

0.4072

0.4072

0.9656

2.6320

2.6320

2.6320

2.6320

2.6320

3.5626

### Annexure II

### SAIF POWER GENERATION PLANT OPERATION ON HSD

	Variab	le Charge (	Rs./kWh)	Capacity Charge (Rs./kW/Hour)									Capacity Charges	Т	otal	
Year	Fuel	Variable O&M	Total	Escalable (Fixed O&M) Foreign	Escalable (Fixed O&M) Local	Financing Cost on Working Capital	Escalable (insurance)	Return on Equity	Return on Equity for Construction Period	Withholding Tax @7.5%	Loan Repayment	Interest Charges	Total	Rs. / kWh at 60% PF	Rs. / kWh	¢/kWh
1	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	0.2734	0.5833	1.2825	2.1376	9.1049	15.1748
2	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	0.3078	0.5488	1.2825	2.1376	9.1049	15.1748
3	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	0.3467	0.5100	1.2825	2.1376	9.1049	15.1748
4	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	0.3903	0.4663	1.2825	2.1376	9.1049	15.1748
5	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	0.4396	0.4171	1.2825	2.1376	9.1049	15.1748
6	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	0.4950	0.3617	1.2825	2.1376	9.1049	15.1748
7	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	0.5574	0.2993	1.2825	2.1376	9.1049	15.1748
8	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	0.6276	0.2290	1.2825	2.1376	9.1049	15.1748
9	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	0.7067	0.1499	1.2825	2.1376	9.1049	15.1748
10	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	0.7958	0.0608	1.2825	2.1376	9.1049	15.1748
11	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-	-	0.4259	0.7098	7.6771	12.7952
12	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-	-	0.4259	0.7098	7.6771	12.7952
13	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153		-	0.4259	0.7098	7.6771	12.7952
14	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-	-	0.4259	0.7098	7.6771	12.7952
15	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-	-	0.4259	0.7098	7.6771	12.7952
16	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-	-	0.4259	0.7098	7.6771	12.7952
17	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-	-	0.4259	0.7098	7.6771	12.7952
18	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-	-	0.4259	0.7098	7.6771	12.7952
19	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-	- '	0.4259	0.7098	7.6771	12.7952
20	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-	-	0.4259	0.7098	7.6771	12.7952
21	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-	-	0.4259	0.7098	7.6771	12.7952
22	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-	-	0.4259	0.7098	7.6771	12.7952
23	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-	-	0.4259	0.7098	7.6771	12.7952
24	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-	-	0.4259	0.7098	7.6771	12.7952
25	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-	-	0.4259	0.7098	7.6771	12.7952
26	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-	-	0.4259	0.7098	7.6771	12.7952
27	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-	-	0.4259	0.7098	7.6771	12.7952
28	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-		0.4259	0.7098	7.6771	12.7952
29	6.7153	0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	-	-	0.4259	0.7098	7.6771	12.7952
30		0.2520	6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	·	-	0.4259	0.7098	7.6771	12.7952
Levelized			6.9673	0.0651	0.0434	0.0351	0.0637	0.1881	0.0152	0.0153	0.2936	0.2648	0.9843	1.6404	8.6077	14.3462







