

## **National Electric Power Regulatory Authority**

Islamic Republic of Pakistan

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Registrar

No. NEPRA/R/TRF-80/SPL-2007/4445-4447 June 20, 2011

Subject: Decision of the Authority in the Matter of Tariff Adjustments with respect to Saif Power Ltd. at Commercial Operation Date (COD) [Case # NEPRA/TRF-80/SPL-2007]

Intimation of Decision of Tariff pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997)

Dear Sir,

Please find enclosed the subject Decision of the Authority along with Annexure-I & II (20 pages) in Case No. NEPRA/TRF-80/SPL-2007.

- 2. The decision is being intimated to the Federal Government for the purpose of notification in the official gazette pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997) and Rule 16(11) of the National Electric Power Regulatory Authority Tariff (Standards and Procedure) Rules, 1998.
- 3. Please note that Order of the Authority at para 23 relating to the reference tariff, adjustments & indexation etc along with Annex-I & II needs to be notified in the official gazette.

Enclosure: As above

(Syed Safeer Hussain)

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

CC:

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





## DECISION OF THE AUTHORITY IN THE MATTER OF TARIFF ADJUSTMENTS SAIF POWER LTD. AT COMMERCIAL OPERATION DATE (COD) (Case No. NEPRA/TRF-80/SPL-2007)

#### 1. Introduction

- 1.1 Saif Power Ltd. (hereinafter "SPL") commenced commercial operations with effect from April 30, 2010. SPL through a letter dated July 27, 2010 submitted its request for adjustment of relevant components of its tariff, which were required to be adjusted at Commercial Operations Date (hereinafter "COD") in accordance with the Authority's determination dated June 15, 2006 and subsequent determinations/reviews dated August 03, 2007, February 12, 2008, October 21, 2008 and January 16, 2009. SPL along with its request also submitted copies of original invoices and relevant documents in support thereof.
- 1.2 In order to adjust the reference tariff components on the basis of actual expenditure, revised KIBOR, US CPI, WPI, exchange rate and initial dependable capacity at COD the following methodology was adopted:
  - i) Verification of the information provided by SPL with the original determination;
  - ii) Verification of the source documents i.e. invoices, general ledgers, copies of the bank advises, pay orders, taxes & custom duty, challans etc;
  - iii) Sought clarification and additional information for processing of the case
  - iv) Verification through independent sources i.e. financial statements, bank statements etc.
  - v) Physical verification through visit of the generating facility

#### 2. Adjustment due to variation in net capacity

According to the Authority's determination dated January 16, 2009 the reference tariff was determined on the basis of minimum net capacity of 209 MW at delivery point at mean site conditions; and all the tariff components including fuel cost component were required to be adjusted at COD based upon the Initial Dependable Capacity (IDC) Test to be carried out for determination of contracted capacity. Subsequent to the IDC test as certified by the Independent Engineer the net capacity at COD has been established as 209.786 MW. Based on the IDC established at COD the reference tariff has been accordingly adjusted.

#### 3. Adjustments in the Project Cost

- 3.1 The reference tariff components i.e. Insurance, ROE, ROEDC and Debt Service were required to be adjusted at COD on account of following variations;
  - i) EPC cost variation due to Euro/US\$ parity adjustment;
  - ii) Interest during construction based on actual draw downs and interest rates variation till R-COD;
  - iii) Custom duties and taxes at actual;
  - iv) Piling cost as per actual subject to maximum of US\$2.12 million;
  - v) Lenders Advisory fee as per actual with a maximum cap of 1.2%;
  - vi) Administration cost in Non-EPC Rs. 1.54 million out of Rs.3.86 million on the basis of actual audited accounts; and
  - vii) Cost of working capital based on actual fuel prices and KIBOR prevalent at the time of first fill.
- 3.2 In order to make the above one-time adjustments as specified in the determinations all the documentary evidences provided by SPL in support of its claim have been verified and found satisfactory unless stated otherwise.





## 4. Adjustments in the Tariff Components at COD Other than Project Cost

- 4.1 The following tariff components were also subject to adjustment at COD:
  - a. Fuel cost component on account of variation in fuel price
  - b. 0 & M cost indexation with revised US CPI, WPI and USD/PKR exchange rate
  - c. Post-COD insurance indexation based on actual premium (Up to a maximum of 1.35% of EPC)
  - d. Cost of working capital adjustment with revised fuel price and KIBOR

#### 5. Adjustment in EPC Cost (One Time)

- 5.1 The Petitioner was allowed EPC cost of US\$ 157.062 million comprising of US\$ 73.069 million plus Euro 47.501 million for equipment and US\$ 20 million for construction. The Authority in its decision noted that since the exact timing of payment to EPC Contractor was not known at the time of determination therefore an adjustment for foreign currency fluctuation for the portion paid in the relevant currency was required to be made on the basis of documentary evidence. In view thereof the Authority decided to allow an adjustment in the relevant tariff components i.e. Insurance, Return on Equity (ROE), Return on Equity During Construction (ROEDC), Principal Repayment and Interest Charges.
- Based upon the documentary evidence provided by SPL the actual weighted average Euro/US\$ parity has been worked out as 1.4751 as against the reference parity of 1.3472. Having adjusted the Euro portion of EPC cost €47.501 million for €/US\$ parity the overall EPC cost has been worked out as US\$163.139 million; the detail is indicated hereunder;

PARTICULARS	Amount in USD as Per Tariff Determination US \$ million	Amount in USD Claimed by SPL US \$ million	Amount Approved US \$ million
EPC -CMEC			
Equipment Supply Contract -US\$	73.069	73.470	73.069
Equipment Supply Contract-Euro	63.993	70.070	70.070
Equipment Supply Contract	137.062	143.540	143.139
Construction services	20.000	20.090	20.000
Sub Total	157.062	163.631	163.139

- 5.3 In addition to above adjustment in EPC Cost, SPL also requested US\$ 422,416 on account of RMB/US\$ exchange rate variation, which according to SPL was built in SPL's EPC contract. SPL also requested to allow US\$ 69,500 pertaining to additional purchases of Gas Bath Heaters. While justifying its claim of US\$ 422,416, SPL argued that due to delay in opening L/C in favor of EPC contractor before August 07, 2007, it had to pay the difference in US\$/RMB exchange rate to the contractor for the period between August 07, 2007 and actual L/C opening date i.e. September 11, 2007. In support thereof SPL also provided a side agreement with the EPC contractor. The Authority considers that SPL's claim with respect to the payment on account of US\$/RMB due to the delay in opening L/C is on the part of sponsor. Since the delay in opening the L/C is not caused by any act of Power Purchaser and is outside the scope of instant adjustment therefore cannot be considered and is therefore disallowed.
- In support of its claim of US\$ 69,500 for purchase of a bath Heater, it was submitted that CMEC (EPC contractor) along with GE (OEM) designed the plant on the assumption that gas will be delivered to Gas turbine at a temperature ranging between 27 to 35 °C whereas, the actual temperature as per GSA signed with SNGPL will be much lower than the aforesaid benchmark. SPL argued that to





maintain the benchmark temperature of Gas the procurement of Gas bath heater was necessitated. In support thereof, SPL provided document evidencing the procurement of bath heater.

5.5 The Authority having considered SPL's request for allowing the cost of procurement of Gas heater is constrained to entertain SPL's request being outside the scope of COD adjustments allowed in the determination.

#### 6. Adjustment on account of Custom Duties

- 6.1 SPL claimed Rs. 592.596 million as duties and other charges/taxes related to import of plants equipment, which when converted into US\$ based on weighted average PKR/US\$ parity Rs. 79.09 worked out as US\$ 7.492 million against the assessment of US\$ 5.50 million in the determination. In support of its claim SPL submitted copies of goods declarations of Pakistan Customs, payment challans of these duties, copies of pay orders of different banks through which these duties were paid, copies of bills of entries, EPC import invoices, etc.
- Based on evaluation of the information all the claims against custom duties, Cess, Sindh Excise Duties, etc. have been verified and found legitimate; therefore Rs. 592.596 million as claimed by SPL are being accepted.

#### 7. Adjustment on account of Withholding Tax

- 7.1 SPL claimed Rs 98.217 million (US\$ 1.28million) as withholding tax on construction payment against the Authority's assessment of Rs. 154.100 million (US\$1.88 million). In support of its claim SPL submitted copies of Tax payment challans of these taxes, copies of Construction payment invoices, Bank statements.
- 7.2 All the claims against withholding tax have been accordingly verified and pertain to the construction works as per EPC contract of SPL. In view thereof the amount of Rs 98.217 million as claimed by SPL on this account is accepted as such.

#### † 8. Non-EPC

- 8.1 SPL claimed US\$ 18.320 million on account of Non-EPC cost including the project development, construction management, insurance during construction, pre-operating 0&M and un-recovered fuel and spare parts. SPL in support of its claim provided the details of Non-EPC cost according to which it incurred US\$ 18.320 million against the determined amount of \$ 16.257 million thus claiming cost overruns of US\$ 2.063 million. SPL requested to convert its Non-EPC cost in Pak rupees at exchange rate of Rs. 81.9683/US\$, which was used in the recent determinations dated January 16, 2009 and October 21, 2008.
- 8.2 The Authority has carefully examined the SPL's request in the light of its determinations and noted that SPL's request was not in accordance with the Authority's decision. In this regard the Authority at Para 86 of the determination dated August 03, 2007, very clearly addressed the issue of adjustment on account of exchange rate variation. The relevant extract of the aforementioned para is reproduced hereunder:

"the Authority has considered the Petitioner's concerns and is of view that any variation in project cost during construction period on account of variation in Dollar/Rupee parity should be allowed through adjustment in the project cost. For the purpose of this adjustment Petitioner shall provide payment schedule along with exchange rate prevalent on the date of particular transaction. SPL's final reference table shall be revised on COD to incorporate all the adjustments allowed by the Authority during construction period."

8.3 The Authority considers that SPL's request is not only inconsistent with the Authority's determination but is also against the spirit of using the exchange rate of Rs. 81.9683/US\$. The Authority at Para 9 of the





- afore-mentioned determination has discussed the rational for using the latest exchange rate as reference. The Authority is of the opinion that the perspective in which the exchange rate of Rs. 81.9683/US\$ was used in the aforesaid determinations needs to be kept in view. The entire project cost is indicated in foreign currency just to make comparison of similar projects and the adjustment on account of exchange rate is provided on the basis of rate prevailing at the time of actual transaction. The Authority while acknowledging the fact that exact timing of the transactions was not known to it at the time of determination provided an adjustment mechanism.
- 8.4 Notwithstanding to above, during the physical verification of the project NEPRA team noted that (i) the access road was not constructed by SPL and in fact it existed even before the construction of SPL Plant, (ii) Bachelor's accommodation was not constructed at site. The cost of US\$ 0.795 million on this account was allowed by the Authority in its tariff determinations. SPL verbally stated that it reinforced the access road and would submit the details. SPL also stated that it was purchasing the Bachelors' accommodation constructed by EPC contractor. SPL, however, did not submit written reply in support of its claim. The Authority considers that the costs on account of access road and bachelors' accommodation as claimed by SPL could not be verified therefore are being disallowed.
- 8.5 On the basis of Authority's above decision, adjusted Non-EPC cost of US\$ 15.347 million amounts to Rs.1,044.687 million.

#### 9. Administration cost

- 9.1 SPL requested the Authority to allow actual cost of Rs. 259.593 million (approximately US\$ 3.745 million) incurred on account of administration expenses before COD. SPL did not submit audited financial statements; however, it submitted a certificate from its statutory auditors stating therein that SPL incurred administration cost of Rs. 259.593 million (approximately US\$ 3.745 million) before COD, which according to SPL was within the allowed limit of US\$ 3.860 million as per the determination of the Authority dated October 21, 2008.
- 9.2 The Authority in its determination dated August 3, 2007 allowed US\$ 2.32 million (US\$ 1.32 million for development phase and US\$ 1.00 million for construction phase) on account of administration cost. SPL in its review motion agitated its stance for allowing US\$ 3.86 million as per its original request. The Petitioner's request in this regard was not considered due to the reasons recorded in the Authority's decision according to which it was observed that some of these costs were partially covered in the EPC contract and amounted to duplication. Accordingly, the previous assessment of overall administrative expenses US\$ 2.32 million was maintained. Subsequently on SPL's agitation for its claim the Authority vide Para 5.3.4 of the determination dated October 21, 2008, conditionally accepted SPL's request for allowing an additional amount of US\$ 1.54 million subject to provision of actual audited accounts at the time of COD with the maximum ceiling of overall US\$ 3.86 million Administrative cost. The extract of the Authority's decision is given hereunder:

"Having examined the information and documentary evidence provided by the petitioner and based on CPPA's comments, the Authority considers that the Petitioner request for allowing an additional amount of US\$ 1.54 million under the head of administrative expenses is justified. The Authority, therefore, has decided to allow an additional amount of US\$ 1.54 million to be adjusted at the time of COD on the basis of actual accounts subject to maximum of overall US\$ 3.86 million on account of the Administrative cost."

9.3 The Authority considers that the additional amount on this account was allowed conditionally and SPL was required to substantiate its claim on the basis of audited accounts. Since SPL has now substantiated its claim with the audited accounts, therefore the Authority has decided to allow this cost.







#### 10. A Initial Spare Parts

10.1 SPL requested US\$ 4.814 million on account of Initial Spare Parts. This account head was not allowed to SPL by the Authority in its previous determinations. The extracts from the Authority's decisions in this regard are reproduced:

Para 24 of the decision of the Authority dated August 3, 2007 reads as;

"The Authority has carefully examined the documentary evidence provided by SPL in support of its claim. The Authority considers that SPL could not establish its claim according to the information provided by it. The Authority observed that the initial spare parts was part of O&M contract therefore the Authority has decided not to accept SPL's request in this context"

Para 7 (a)(i) of the decision of the Authority dated September 28, 2007 reads as; "To examine the basis of 0&M costs, NEPRA required SPL to provide copy of its (signed and executed) 0&M contract. Several attempts were made to procure the document but in vain. SPL declined to produce the copy of 0&M contract and contended that the 0&M contract is 'confidential' and instead submitted copy of letters from GE and stone & Webster Management Consultants Inc......."

Para 7(e) (iii) of the decision of the Authority dated September 28, 2007 reads as:

"...Based on reasons given in paragraph -7(a) here above, the Authority has decided not to alter its earlier decision. Consequently, SPL request for initial spare parts is refused"

10.2 SPL once again in its request for COD adjustment agitated its previous stance for allowing Cost of Initial Spares and Mobilization Cost paid to 0&M contractor during pre-COD stage. SPL's request was without any verifiable documentary evidence. A similar request was made by SPL in its tariff petition dated May 26, 2008, which was thoroughly examined. The Authority in its determination dated October 21, 2008 at para 5.2.2 held;

"The Authority observes that all the relevant costs like 0&M Operator's Fee, Cost of spares required for maintenance of plant, lubricants and other consumables were considered and allowed under variable 0&M component. Further, to provide another opportunity to SPL to substantiate its claim for US\$3.00 million on account of 0&M mobilization cost before COD and to ensure that the variable 0&M cost allowed to the Petitioner is sufficient to cover the 0&M mobilization cost and cost of spares the Authority had asked for the copy of 0&M Contract. SPL, however, refused to provide the requisite documentary evidence on the ground that such contract was never submitted by the comparable IPPs, namely Saphire Electric Company Limited (SECL), Orient Power Limited (SPL) While Halmore Power Generation Limited (HPGCL) submitted the unofficial version. The Authority considering the evidence as inadequate to substantiate the Petitioner's claim disallowed cost of pre-COD mobilization."

During the pendency of COD adjustment SPL was once again provided an opportunity to submit its O&M contract so that the Authority could ensure whether or not the variable O&M cost allowed to SPL was sufficient to cover the O&M mobilization cost and cost of spares. SPL in response to Authority's direction did provide the O&M Contract, which was thoroughly examined. According to the calculations provided by SPL it will be able to recover US\$263.127 million through determined variable O&M tariff component over 30 years as against the actual payments of US\$216.641 million on account of variable fee, milestone payments and bonus. SPL's calculations also indicate that SPL will recover through determined tariff US\$100.994 million and US\$78.410 million on account of fixed foreign and fixed local O&M respectively while it will pay US\$ 184.301 million on this account. From the given calculation is that over the 30 years project terms there will be about.



US\$41.589 million surplus. SPL however claimed that it will have to incur US\$79.134 million local expenses like head office expenses, plant consumable and duties. As a result thereof it will sustain a loss of about US\$37.544 million over the entire project life. According to SPL costs of initial spare parts and O&M mobilization are separate from these expenses.

10.4 In order to validate SPL's calculation, SPL's submission made vide letter Ref. No. SPL/L0605/NEPRA-23 dated May30,2006 in response to Authority's queries was reviewed. SPL's response in this regard is reproduced as follows;

"—so far no O&M Contractor has supplied us any detailed breakdown in the format as you have required. For example, LTSA includes overhauling parts and fee. Secondly, different operators have variations in individual costs which have been discussed with then on informal basis. ---- Secondly if you look into SPL's feasibility study, Annexure E, page 2, under the head of Operation Period Cost, you will observe that an amount of around US\$6.99 million has been allocated for annual total O&M expenses at 60% Plant Factor. (this figure does not include insurance, HSD reserve and duties on imports). Saif Power has asked for US\$6.96 million on 60% Plant Factor. However, the Point is that the allocation given in the Feasibility Study gives an idea of what are the variables and which are the fixed portions. Different IPPs have different views on how the bifurcation between fixed and variable should be made. For example, we know from Orient Power's case (petition, Motion for Leave for Review) that they prefer the whole of LTSA to be part of variable cost. Their logic is also valid. Similarly, M/S Sapphire have their own understanding while we have our own. There is no fixed formula and it entirely depends on the how the O&M contract is finally concluded. The other two IPPs that we have mentioned feel that of the overall 100% O&M cost, 60% or more should go to variable component and only maximum of 40% should go to the fixed component (60% Plant Factor). We have put up our numbers on a 50-50% basis in our petition. It may happen that in the end we realize the others were correct and so, this risk is upon us. However, for the moment we are satisfied with the 50-50 basis. We have made an evaluation on our own (based on discussions with contractors) and on that basis we can give a brief break up of such costs but please remember that this is our own evaluation and such break up can actually change at the time of signing of the O&M Contract.

Sr. No.	Cost Item	Amount USD Fixed	Million Variable
1	Operator's fee including: - daily plant operations, and trouble shooting, Salaries and wages, minor preventive repairs, And unscheduled minor repairs + LTSA fee for long term contract, services fee, inspection costs and subcontracting	2.50	
2	Lubricants and Water treatment		0.60
3	Consumables	0.30	
4	Head Office expenses (as described earlier)	0.60	
5	Spare parts for scheduled maintenance and major overhauling Note: The above break up is on 90% Plant Factor.		4.70

It is reiterated that above break up is just an indication of how the structure might turn out to be; amounts may slightly change internally from head to head while the overall figure remains the same."





10.5 SPL's contention has been considered in the light of 0&M Contract, previous submission as reproduced above and calculations provided by SPL. It has been observed that SPL's working of US\$79.134 million pertaining to head office expenses and plant consumables is contradictory to the above break up provided by SPL itself. The Authority considers that SPL's claim for head office expenses, consumables and initial spare parts is not legitimate as the same have already been allowed as part of 0&M cost. SPL itself had stated that "---- amounts may slightly change internally from head to head while the overall figures remain the same." SPL's contention that it will incur additional cost of about US\$13.435 million over 30 years on account of custom duties on spare parts has been carefully examined. The Authority is of the considered opinion that the additional cost claimed on this account is also not justified because the tariff already given to SPL is sufficient to cover the additional cost on account of import duties on spare parts. In view thereof the Authority has decided to maintain its earlier decision in this respect.

#### 11 **O&M Mobilization Cost**

11.1 This cost was previously disallowed to SPL due to non provision of documentary evidence. The Authority however decided to consider the same subject to provision of documentary evidence. SPL has now provided all the relevant documentary evidence including the O&M Contract. SPL also produced copy of letter from GE Electric (O&M Contractor) granting permission for presenting the same to the Authority. It was stated that O&M contract was not provided to the Authority due to confidentiality provisions of the O&M Contract. The Authority, having examined thoroughly O &M contract, copies of Invoices, bank statements and Audited accounts, is fully convinced that O&M mobilization claimed by SPL is justified. In view thereof the Authority has decided to allow US\$ 4.225 million on account of O&M Mobilization cost.

#### 12 Piling and Soil Investigating cost

The Authority in its determination No. NEPRA/TRF-80/SPL-2007 dated August 03, 2007 allowed piling cost, which was subject to adjustment as per actual up to maximum of US\$ 2.12 million. SPL requested Rs. 126.261 million or US\$ 1.849 million on account of piling and soil investigating cost, which were duly verified with the Contracts, invoices and bank statements. The actual amount US\$ 1.849 million being less than the assessed amount of US\$2.12 million is allowed as such.

#### 13 Adjustment on account of Actual Interest During Construction

- 13.1 SPL claimed Rs. 3,255.225 million (US\$ 40.558 million) on account of IDC based upon 31 months and 19 days construction period (September 11, 2007 to April 29, 2010) as against the assessed amount of US\$25.47 million. In support thereof SPL submitted the copies of common term agreements with lenders, general ledgers, copies of bank statements indicating actual draw downs of debt along with bank advices evidencing the amount of interest charged by the lenders, data of KIBOR rates, etc.
- 13.2 Based on the definition of construction start period given in the PPA, construction period started from September 11, 2007 while first debt draw down was made on September 12, 2007 i.e. just next day of the financial close. SPL's working of IDC Rs.3,255.225 million was duly verified in detail with the source documents. The calculation of IDC was based on the total debt of Rs. 12,907.528 million and the period from September 12, 2007 to April 29, 2010. The analysis of the information revealed that the variation in IDC was attributable to:
  - Increase in EPC cost due to fluctuation in exchange rates both in Euro/Dollar parity and Rupee / Dollar Parity;
  - KIBOR variation in the range of 9.71% to 15.52% during the construction period as against the assumed fixed rate of 14.80%;





- Increase in construction period from 24 months assumed in the determination to 31 months as per PPA; and
- SPL's additional claim for 19 days between Required Commercial Operation Date (RCOD) as per PPA and actual COD.
- 13.3 Having considered all the above factors the Authority is of the opinion that SPL's claim of IDC beyond RCOD is not consistent with the Authority's decisions in other similar cases wherein the IDC has been calculated up to RCOD as per PPA. In view thereof in the instant case actual IDC up to April 10, 2010 (RCOD) after deducting Interest Income during construction of Rs. 26.611 million works out as Rs. *Rs.3*,152.152 million (US\$ 38.943 million) as against SPL's claim of Rs.3,255.541million (US\$ 40.558 million) and the same is being allowed.

## 14 Adjustment on account of Financing Fee and Charges / Lenders Advisory Fee

- 14.1 SPL claimed Rs. 318.321 million (US\$ 4.641 million) on account of financing fees and charges as against assessed amount of US\$ 2.94 million. The Petitioner contended that its claim was 2.46% of the total borrowed amount of Rs 12,907.53 million as against the Authority's 3% ceiling of financing fees and charges allowed in other like cases. In support of its claim SPL provided banks statements, bank advices, details, computations, etc.
- 14.2 The Authority considered SPL's request in the light of its determinations and decisions pertaining to SPL. The Authority noted that the Petitioner was originally allowed lump sum US\$2.94 million on account of Lender's Advisory Fee as per the details given below;

	Total	US\$2.940 Million
v)	Project Monitoring Fee	<u>US\$0.050 Million</u>
iv)	Guarantee Commission	US\$0.160 Million
iii)	Insurance Advisory	US\$0.150 Million
ii)	L/C Commission & Retirement Charges	US\$0.823 Million
i)	Lender's Advisory Fee	US\$1.757 Million

- 14.3 Under the head of financing fee and charges, only lenders advisory fee were subject to actual with the maximum threshold of 1.2% of loan amount while other items from ii) to v) were to remain fixed and were non-reopen able. The Authority fixed threshold of 1.2% of borrowing under the head of financing Advisory fee unlike other IPPs wherein the Authority generally allows 3% capping of overall financing fee and other financial charges.
- 14.4 The information indicated that SPL obtained Rs.12,907.53 million as loan for its project and the claimed and verifiable cost of SPL Rs. 318.321 million (US\$ 4.641 million) is within the threshold of 3% as allowed by the Authority to other IPPs . Based on the loan obtained and applying the benchmark rate up to of 3% the Authority has decided to allow Rs. 318.321 million (US\$ 4.641 million) to SPL.

#### 15 <u>Insurance During Construction</u>

SPL requested Rs. 153.569 million (US\$ 2.406 million at exchange rate of Rs.63.8275/\$) against assessed US\$ 2.12 million (1.35% of determined EPC Cost). In support of its claim SPL provided details of Insurance premium paid during construction. Although there is no mechanism in the SPL's determinations for adjustment in the cost of insurance during construction but the Authority in similar cases of COD adjustments has allowed adjustment on the basis of actual expenses up to a maximum of 1.35% of revised EPC cost. On the same principle the Authority has worked out US\$.





, 2.202 million (\$163.139x 1.35%) or (Rs. 140.578 at exchange rate of Rs.63.841/\$) Insurance during Construction in the case of SPL, which is being allowed.

#### 16 Overall Project Cost

Based on the above adjustments made in accordance with the Authority's determination, the overall project cost during construction in the instant case has been worked out as US\$ 236.950 million (Rs. 16,960.669 million) against the claim of US\$ 246.726 million(Rs.17,569.895 million).

#### 17 Adjustment on account of Return on Equity (ROE)

The Authority in its determination dated January 16, 2009 assessed ROE on the basis of debt to equity ratio of 80:20. In the latest determination it was provided that ROE would be revised on the basis of ROE established at COD. In the light of Authority's determination in this regard SPL requested to take actual debt of Rs. 12.907 billion and the remaining amount as equity. Accordingly debt to equity ratio in the instant case at COD has been worked out as 76:24 against the determined 80:20. Based on the adjusted project cost of US\$ 236.950 (Rs. 16,960.669) million and debt equity ratio of 76:24, the equity of SPL has been calculated as US\$ 55.88 million. On the basis of adjusted equity, ROE @ 15% has been worked out as US\$ 8.37 million. Based on revised net capacity of 209.786 MW established at COD the adjusted ROE component of tariff in the instant case has been worked out as Rs 0.3824/kW/hr.

#### 18 Adjustment on account of Return on Equity During Construction (ROEDC)

The Authority at the time of determination assessed ROEDC on the basis of assumed equity injection which was subject to adjustment at COD on the basis of actual equity injection. For the purpose of calculating ROEDC the Authority has adopted the same construction period of 31 months (commencing from Sept 11, 2007 to RCOD in April 10, 2010) as has been adopted for calculating IDC keeping in view the Authority's decisions in other similar cases. Accordingly the actual equity injection till R-COD has been worked out as US\$ 48.732 million. Based on the actual timing of equity injection the ROEDC tariff component in the instant case at COD works out as Rs 0.1129/kW/hr.

#### 19 <u>Insurance Component (Insurance subsequent to COD)</u>

- 19.1 SPL claimed Rs. 171.410 million or US\$ 2.040 million (when converted at actual weighted average exchange rate). In support of this claim, SPL provided insurance premium invoices of EFU General Insurance and New Hampshire Insurance Company, Bank Statements, vouchers, etc.
- 19.2 Based on the documentary evidence submitted, the insurance premium of US\$ 2.040 million comes out to 1.23% of EPC cost in Dollar terms and is within the ceiling of 1.35% of EPC cost as allowed by the Authority. In view thereof on the basis of actual premium of US\$ 2.040 million (Rs.171.410 million) duly verified with the documentary evidence, the insurance component has been worked out as 0.0933/kW/hr.

### 20 Working Capital Component

20.1 In the original determination the reference tariff component of working capital was determined as Rs. 0.0455/kW/hr for 9 months on gas operation and Rs.0.0974/kW/hr for 3-months operation on HSD. The calculation was based on the following reference parameters:

• HSD Price (LHV)

Rs. 62.27 / Liter

• Net Capacity

209 MW

KIBOR

14.80% + 2% Margin

• Sales Tax

16% /







Based on the documentary evidence submitted, the actual weighted average price of HSD has been established as Rs. 63.67/litre whereas the effective KIBOR is 12.34%. Therefore, the working capital component has accordingly been revised on the basis of following:

HSD Price (LHV) Rs. 63.67 / Liter
Net Capacity 209.786 MW

• KIBOR 12.34% + 2% Margin

Sales Tax 179

Based on the above revised parameters the working capital component has been revised as Rs. 0.0424/kW/hr for 9 months on gas operation and 0.0909/kW/hr for 3-months on HSD operation.

#### 21 <u>Debt Servicing Component</u>

21.1 SPL was originally allowed debt service of Rs. 1.6481/kW/hr for a period of 10 years, which comprised of loan repayment and interest charges. The reference values at the time of determination were as follows:

Total debt
 Rs 13,978.764 million @ 80% of the total project cost
 KIBOR
 3-Month @ 14.80% + 3% Margin

Term of loan
 10 years to be payable on 40 equal quarters.

- According to the information provided by SPL, total loan amount till COD is Rs.12,907.528 million. SPL requested that for making adjustments in the relevant reference tariff components the actual loan amount should be taken as such while the balance amount should be treated as equity. Based on the revised project cost of Rs16,960.669 million and the actual loan amount of Rs. 12,907.528 million the actual debt to equity ratio works out as 76:24 as against the reference 80:20. SPL's request is in line with the Authority's determination; therefore is being accepted.
- 21.3 Accordingly based on the 3- months KIBOR of 12.34% as of March 31 2010 plus 3 % margin and net capacity of 209.786 MW, reference debt service component of Rs.1.6481/kW/hr in the instant case has been revised as Rs. 1.3848/kW/hr.

#### 22 Fuel Cost Adjustment:

#### **GAS**

22.1 SPL claimed fuel cost component of tariff at Rs. 2.454/kWh, which was in accordance with the adjustment mechanism prescribed in the Authority's determination. Based on the prescribed mechanism the determined fuel cost component was already revised as Rs. 2.454/kWh in the month of January 2010 vide its order dated August 2, 2010.

#### **HSD**

22.2 SPL did not request for revision in HSD fuel cost component; therefore, the original reference HSD fuel cost component of Rs12.1651/kWh as assessed in the determination of 2009 has been used.

#### 23 ORDER

Pursuant to Rule 16 (11) of the NEPRA Tariff Standards & Procedures Rules, 1998 SPL is allowed to charge, on the basis of revised net dependable capacity established on the basis of k





test jointly carried out by the Central Power Purchasing Agency (CPPA) of the National Transmission and Despatch Company Limited (NTDC) and SPL at the time of Commercial Operations Date (COD), the following tariff for delivery of electricity:

#### REFERENCE TARIFF

Tariff Components	Year 1 to 10	Year 11 to 30	Indexation
Capacity Charge (PKR/kW/Hour)			
Fixed O&M - Foreign	0.1016	0.1016	US\$/PKR & US CPI
- Local	0.0612	0.0612	WPI
Insurance	0.0933	0.0933	US\$/PKR
Cost of working capital - Gas	0.0424	0.0424	KIBOR
- HSD	0.0909	0.0909	KIBOR
Debt service	1.3848	-	KIBOR
Return on equity	0.3824	0.3824	US\$/PKR
Return on equity during	0.1129	0.1129	
Construction			US\$/PKR
Total Capacity Charge - Gas	2.1786	0.7938	
- HSD	2.2271	0.8423	
Energy Charge Rs./kWh			
For Operation on Gas			
Fuel cost component	2.4540	2.4540	Fuel price
Variable O&M - Foreign	0.2650	0.2650	US\$/PKR & US CPI
For Operation on HSD			*
Fuel cost component	12.1651	12.1651	Fuel price
Variable O&M - Foreign	0.3825	0.3825	US\$/PKR & US CPI

#### Note:

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

## I) Adjustment in Insurance Component

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

Insurance Component (Revised) = Rs. 0.0933 per kW per hour/ (1.35% x US\$ 163.139 million) x AP

Where:



Actual Premium subject to maximum of 1.35% of the adjusted EPC  $\int$ 





## 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 income, the exact amount paid by the company shall be reimbursed by NTDC to SPL on production of original receipts. This payment will be considered as a pass-though (as Rs./kW/hour) hourly payment spread over a 12 months period in addition to the capacity purchase price given in the tariff. Furthermore, in such a scenario, SPL shall also submit to NTDC details of any tax shield savings and NTDC shall 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 the determination of tariff for new IPPs. In revised tariff table withholding tax number is indicated as reference and NTDC shall make payment on account of withholding tax at the time of actual payment of dividend subject to maximum of 7.5% of 15% of reference equity i.e. hourly payment (Rs./kW/hour) spread over 12 months.

In case company does not declare a dividend in a particular year or only declares a partial dividend, then the difference in the withholding tax amount (between what is paid in that year and the total entitlement as per the net return on equity) would be carried forward and accumulated so that the company is able to recover the same in hourly payments spread over 12 months period as a pass-through from the power purchaser in future on the basis of the total dividend payout.

#### III) Indexations

The following indexations shall be applicable to reference tariff.

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

In future fixed O&M part of capacity charge will be adjusted on account of local inflation (WPI) and variation in US CPI and dollar/rupee exchange rate parity. Quarterly adjustment for local inflation, foreign inflation and exchange rate variation will be made on 1st July, 1st October, 1st January and 1st April based on the latest available information with respect to WPI notified by the Federal Bureau of Statistics, US CPI notified by the US Bureau of Labor Statistics and revised TT & OD selling rate of US dollar notified by the National Bank of Pakistan. The mode of indexation will be as under:

#### i) Fixed O&M

 $FO&M_{(LREV)} = Rs. 0.0612 \text{ per kW per hour * WPI}_{(REV)} / 161.77$ 

 $FO\&M_{(FREV)} = Rs. 0.1016 \text{ per kW per hour * US CPI}_{(REV)}/217.631 * ER_{(REV)}/Rs. 84.00$ 

Where;

F O&M<sub>(LREV)</sub> = The revised applicable fixed O&M local component of the capacity charge indexed with WPI





FO&M <sub>(FREV)</sub>	= The revised applicable fixed O&M foreign component of the capacity charge indexed with US CPI and exchange rate variations
$\mathrm{WPI}_{(\mathrm{REV})}$	= The revised wholesale price index (manufacturers)
$\mathrm{WPI}_{(\mathrm{REF})}$	= 161.77 wholesale price index (manufacturers) of March 2010
	notified by the Federal Bureau of Statistics
US CPI (REV)	= The revised US CPI (all urban consumers)
US CPI (REF)	= 217.631 US CPI (all urban consumers) for the month of March 2010
	as notified by the US Bureau of Labor Statistics
$ER_{(REV)}$	= The revised TT & OD selling rate of US dollar as notified by the
	National Bank of Pakistan

#### ii) Variable O&M

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

#### For Operation on Gas:

 $V O&M_{(REV)} = Rs. 0.2650 \text{ per kWh} * US CPI_{(REV)} / 217.631 * ER_{(REV)} / Rs. 84.00$ 

#### For Operation on HSD:

 $V O\&M_{(REV)} = Rs. 0.3825 per kWh * US_{(REV)} / 217.631 * ER_{(REV)} / Rs. 84.00$  Where;

V O&M <sub>(REV)</sub>	=	The revised applicable variable O&M component of the energy charge indexed with US CPI and exchange rate variation.
US CPI (REV)	=	The revised US CPI (all urban consumers)
US CPI (REF)	=	· · · · · · · · · · · · · · · · · · ·
ER <sub>(REV)</sub>	=	The revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan

#### b) Adjustment for KIBOR variation

 $\Delta I_{(L)}$ 

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

Where; 
$$\Delta I_{(L)} = \text{The variation in interest charges applicable corresponding to variation in KIBOR.} \ \Delta I_{(L)} \text{ can be positive or negative depending upon whether KIBOR }_{(REV)} \text{ is > or < 12.34\%}. The interest payment obligation will be enhanced or reduced to the extent of } \Delta I_{(L)} \text{ for each quarter under adjustment on quarterly basis.}$$

 $= P_{(LREV)} * (KIBOR_{(REV)} - 12.34\%) / 4$ 



 $P_{(LREV)}$  = The outstanding principal (as indicated in the attached debt service schedule to this order) on a quarterly basis on the relevant quarterly calculations date.

#### c) Fuel Price Variation

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

FC-Gas <sub>(Rev)</sub>	=	(Rs. 2.4540 per kWh * FP-Gas <sub>(Rev)</sub> ) / Rs.368.12 per MMBTU
Where;		
FC-Gas	(Rev) =	Revised fuel cost component of variable charge on Gas
FP-Gas (	Rev) =	The new price of gas notified by the relevant Authority per MMBTU of fuel adjusted for LHV-HHV factor
FC -HSD	(Rev) =	(Rs. 12.1651 per kWh * $FP(D)_{(Rev)}$ ) / Rs.1728.69 per MMBTU
Where;		
FC (Rev)	=	Revised fuel cost component of variable charge on HSD
FP-Gas (	Rev) =	The new price of HSD notified by the relevant Authority per litre of fuel adjusted for NCV-GCV factor, specific gravity and Calorific value (Gross).

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

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

 $ROE_{(Rev)} = Rs. \, 0.3824 \, per \, kW \, per \, hour * ER_{(Rev)} / ER_{(Ref)}$  
Where;  $ROE_{(Rev)} = The \, revised \, ROE \, component \, of \, the \, capacity \, purchase \, price$   $ER_{(Rev)} = The \, revised \, TT \, \& \, OD \, selling \, rate \, of \, US$ as notified by the National Bank of Pakistan

<math>ER_{(Ref)} = The \, reference \, exchange \, rate \, of \, PKR \, 84.00 = 1 \, US$.$ 

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

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

 $ROEDC_{(Rev)} = Rs.0.1129 \text{ per kW per hour * ER}_{(Rev)} / ER_{(Ref)}$ Where;





ROEDC<sub>(Rev)</sub> The revised ROEDC component of the capacity purchase price

The revised TT & OD selling rate of US\$ as notified by the ER<sub>(Rev)</sub>

National Bank of Pakistan

ER<sub>(Ref)</sub> The reference exchanges rate of PKR 84.00= 1 US\$.

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

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

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

#### **AUTHORITY**

Member

(Magbool Ahmad Khawaja) Member

(Ghiasuddin Ahmed)

Member

Vice Chairman / Member

(Khalid S

Chairman

+ Additional Note extended



# ADDITIONAL NOTE RECORDED BY MR. ZAFAR ALI KHAN, MEMBER NEPRA IN THE MATTER OF SAIF POWER LIMITED TARIFF ADJUSTMENTS AT COMMERCIAL OPERATIONS DATE (CASE NO. NEPRA/TRF-80/SPL-2007)

- 1. Saif Power Limited (hereinafter referred to as "SPL") commenced commercial operations 19 days after the Required Commercial Operations Date (hereinafter referred to as "RCOD") as worked out in accordance with the terms of its Power Purchase Agreement (hereinafter referred to as "PPA"). The Authority has decided to disallow actual interest during construction (hereinafter referred to as "IDC") and return on equity during construction (hereinafter referred to as "ROEDC") after the RCOD on the ground that allowing SPL's claim of IDC and ROEDC beyond RCOD will not be consistent with the Authority's decision in other similar cases wherein IDC and ROEDC has been allowed up to RCOD as per PPA.
- 2. I have concurred with the principal of restricting IDC and ROEDC up to RCOD in earlier cases of Atlas Power Limited, Nishat Power Limited and Nishat Chunian Power Limited as these were fast track projects where time lines for completion of the project were specifically considered and allowed by the Authority in their tariff determinations. Modifications in these timelines made by the PPA, if any, were accepted by the Authority.
- 3. However, the case of SPL is entirely different from those fast track projects as no timeline for project completion has been specified in its tariff determination. Further, Policy For Power Generation Projects 2002 under which this project was established also does not place any restriction on the construction period of the project.
- 4. It is also worth noting that SPL in its tariff petition had submitted in its 'Other General Assumptions' that:

"Actual interest during construction (IDC) and return on equity (ROE) during construction will be decided later and will be incorporated/adjusted in tariff on actual basis based on actual drawdown and on actual bench mark interest rate which may vary due to changes in 3 months KIBOR.

As the actual timing of debt drawdown and equity injection may vary from estimated timings during the construction period, these figures will be updated at COD to come up with new base tariff table."

- 5. The Authority accepted these assumptions of SPL and in its tariff determination has explicitly specified that IDC and ROEDC will be adjusted as per actual at commercial operations date (hereinafter referred to as "COD").
- 6. It is also a fact that legal sanctity is attached to a tariff determination being a legal document and the tariff determination so given by the Authority is to remain in field until and unless it is reviewed or modified by the Authority itself or a judicial review thereof is made by a Court of competent jurisdiction. Hence, the adjustments at COD stage, if any, should be





confined only to the extent of original decision of the Authority. There is hardly an occasion for the Authority to change its earlier decision to the detriment of the project while giving the adjustments at COD.

7. In view of the above facts I am of the opinion that actual IDC and ROEDC up to COD should be allowed to SPL.



Page 2 of 2

Zafar Ali Khan Member (Tariff)

## Saif Power Limited Revised Tariff Table at COD w.e.f April 11, 2010

**HSD** 

	Variable Charge (PKR/kWh)			Capacity Charge (Rs./kW/Hour)									
Year	Fuel	Variable O&M Foreign	Total	Fixed O&M Local	Fixed O&M Foreign	Insurance	Financing Cost on Working Capital	Return on Equity	Return on Equity for Construction Period	Withholding Tax @7.5%	Loan Repay- ment	Interest * Charges	130
1	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	0.3255	1.0593	2.2642
2	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	0.3784	1.0064	2.2642
3	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	0.4398	0.9450	2.2642
4	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	0.5113	0.8735	2.2642
5	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	0.5943	0.7904	2.2642
6	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	0.6909	0.6939	2.2642
7	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	0.8031	0.5817	2.2642
8	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	0.9336	0.4512	2.2642
9	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	1.0852	0.2995	2.2642
10	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	1.2615	0.1232	2.2642
11	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	-	0.8794
12	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	-	0.8794
13	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	-	0.8794
14	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	-	0.8794
15	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	-	0.8794
16	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	-	0.8794
17	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	-	0.8794
18	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	-	0.8794
19	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	-	0.8794
20	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	-	0.8794
21	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	-	0.8794
22	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	-	0.8794
23	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371		-	0.8794
24	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	-	0.8794
25	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	~	-	0.8794
26	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	-	0.8794
27	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	-	0.8794
28	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	-	0.8794
29	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	_	0.8794
30	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	-	-	0.8794
Levelized	12.1651	0.3825	12.5476	0.0612	0.1016	0.0933	0.0909	0.3824	0.1129	0.0371	0.4075	0.4951	1.7820

Revised Net Dependable capacity

209.786 MW

Rs.

Exchange rate (US\$/PKR)

84.00 PKR/US\$

US CPI

217.631 For March 2010 as notified by US Bureau of Labor Statistics **161.77** For March 2010 as notified by Federal Bureau of Statistics

15.5176 /kW/ Hr. or US Cents

**18.4734** /kW/Hr



Annex-I

### Saif Power Limited Revised Tariff Table at COD w.e.f April 11, 2010 GAS

	Vai	riable Charge (P	'KR/kWh)	Capacity Charge (Rs./kW/Hour)									
Year	Fuel	Variable O&M Foreign	Total	Fixed O&M Local	Fixed O&M Foreign	Insurance	Financing Cost on Working Capital	Return on Equity	Return on Equity for Construction Period	Withholding Tax @7.5%	Loan Repay- ment	Interest Charges	Total
1	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	0.3255	1.0593	2.2157
2	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	0.3784	1.0064	2.2157
3	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	0.4398	0.9450	2.2157
4	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	0.5113	0.8735	2.2157
5	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	0.5943	0.7904	2.2157
6	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	0.6909	0.6939	2.2157
7	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	0.8031	0.5817	2.2157
8	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	0.9336	0.4512	2.2157
9	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	1.0852	0.2995	2.2157
10	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	1.2615	0.1232	2.2157
11	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	-	-	0.8309
12	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	-	-	0.8309
13	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	-	-	0.8309
14	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	-	-	0.8309
15	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	-	-	0.8309
16	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	-	-	0.8309
17	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	-	-	0.8309
18	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	·	-	0.8309
19	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	·	-	0.8309
20	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	-	-	0.8309
21	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	-		0.8309
22	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371			0.8309
2.3	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371			0.8309
24	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	~	-	0.8309
25	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	-	-	0.8309
26	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	-	-	0.8309
27 28	2.4540	0.2650 0.2650	2.7190 2.7190	0.0612 0.0612	0.1016 0.1016	0.0933 0.0933	0.0424	0.3824 0.3824	0.1129 0.1129	0.0371 0.0371	-	-	0.8309 0.8309
28 29	2.4540 2.4540	0.2650	2.7190 2.7190	0.0612	0.1016	0.0933	0.0424 0.0424	0.3824	0.1129	0.0371	-	-	0.8309
30	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	-	-	0.8309
Levelized	2.4540	0.2650	2.7190	0.0612	0.1016	0.0933	0.0424	0.3824	0.1129	0.0371	0.4075	0.4951	1.7335

Revised Net Dependable capacity

209.786 MW

Rs.

Exchange rate (US\$/PKR)

84.00 PKR/US\$

US CPI

217.631 For March 2010 as notified by US Bureau of Labor Statistics

WPI (Manufacturers)

Reference Tariff at 60% plant factor

**161.77** For March 2010 as notified by Federal Bureau of Statistics 5.6083 /kW/ Hr. or US Cents

6.6765 /kW/Hr



## Saif Power Limited Debt Repayment Schedule

Year	Quarter	Principal Amount Million Rs.	Repayment Million Rs.	Mark Up Million Rs.	Debt Service Million Rs.	Principal Amount Million Rs.	Annual Principal Repayment Rs/Kw/hr	Annual Interest Rs/kW/hr	Annual Debt Serving Rs/kW/hr
	1	12,908	141	495	636	12,766			
1	2	12,766	147	490	636	12,620			
1	3	12,620	152	484	636	12,467			
	4	12,467	158	478	636	12,309	0.3255	1.0593	1.3848
	5	12,309	164	472	636	12,145			
2	6	12,145	170	466	636	11,975			
<del>-</del>	7	11,975	177	459	636	11,798			
	8	11,798	184	452	636	11,614	0.3784	1.0064	1.3848
	9	11,614	191	445	636	11,423	·		
3	10	11,423	198	438	636	11,225			
3	11	11,225	206	430	636	11,019		·	
	12	11,019	214	423	636	10,806	0.4398	0.9450	1.3848
	13	10,806	222	414	636	10,584			
4	14	10,584	230	406	636	10,354			·
-	15	10,354	239	397	636	10,115			
	16	10,115	248	388	636	9,866	0.5113	0.8735	1.3848
	17	9,866	258	378	636	9,608			
5	18	9,608	268	368	636	9,341			
Ü	19	9,341	278	358	636	9,063			
	20	9,063	289	348	636	8,774	0.5943	0.7904	1.3848
	21	8,774	300	336	636	8,474			
6	22	8,474	311	325	636	8,163			
Ü	23	8,163	323	313	636	7,840			
	24	7,840	336	301	636	7,504	0.6909	0.6939	1.3848
	25	7,504	348	288	636	7,156			
7	26	7,156	362	274	636	6,794			
	27	6,794	376	261	636	6,418			
	28	6,418	390	246	636	6,028	0.8031	0.5817	1.3848
	29	6,028	405	231	636	5,623			
8	30	5,623	421	216	636	<b>5,2</b> 03		ļ	
	31	5,203	437	200	636	4,766			
	32	4,766	453	183	636	4,313	0.9336	0.4512	1.3848
	33	4,313	471	165	636	3,842			
9	34	3,842	489	147	636	3,353			
	35	3,353	508	129	636	<b>2,84</b> 5			
	36	2,845	527	109	636	2,318	1.0852	0.2995	1.3848
	37	2,318	547	89	636	1,771			
10	38	1,771	568	68	636	1 <b>,2</b> 03			
	39	1,203	590	46	636	613			
	40	613	613	23	636	(0)	1.2615	0.1232	1.3848



