



National Electric Power Regulatory Authority
Islamic Republic of Pakistan

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No. NEPRA/TRF-122/UCH-II-2008/6734-6736
April 24, 2018

Subject: Decision of the Authority in the matter of Motion for Leave for Review filed by Uch-II Power (Pvt.) Ltd. regarding Tariff Adjustment at Commercial Operations Date (COD) [Case No. NEPRA/TRF-122/UCH-II-2008]

Dear Sir,

Please refer to this office letter No. NEPRA/TRF-122/UCH-II-2008/10809-10811 dated 03.07.2017 whereby Decision of the Authority in the matter of Tariff Adjustments at Commercial Operations Date of Uch-II Power (Pvt.) Ltd. was communicated to the Federal Government for notification in the official Gazette.

2. Please find enclosed herewith the subject decision of the Authority along with Annex-I, II & III (19 pages) in the matter of Motion for Leave for Review filed by Uch-II Power (Pvt.) Ltd. regarding Tariff Adjustment at Commercial Operations Date.

3. 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.

Enclosure: As above

(Iftikhar Ali Khan)

Secretary
Ministry of Energy (Power Division)
'A' Block, Pak Secretariat
Islamabad

CC:

1. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
2. Secretary, Ministry of Finance, 'Q' Block, Pak Secretariat, Islamabad.



April 12, 2018

**DECISION OF THE AUTHORITY IN THE MATTER OF MOTION FOR LEAVE FOR REVIEW
FILED BY UCH-II POWER (PVT) LIMITED REGARDING TARIFF ADJUSTMENT AT
COMMERCIAL OPERATIONS DATE (COD).**

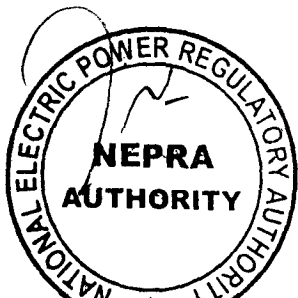
1. Introduction

1.1. Uch-II Power (Pvt) Limited filed motion for leave for review against the Authority's decision for tariff adjustment at commercial operations date issued on July 3, 2017 wherein the true up /adjustment of the reference tariff components was made in light of the Authority's determination / decisions. Uch-II in its review motion requested the Authority for review of its decision in the matter of mobilization cost of operations and maintenance and correction of few inadvertent typo errors.

1.2. Uch-II is a 380.75 MW low BTU gas based power plant located in the province of Balochistan. The generation tariff for the Uch-II power plant was determined on April 24, 2009. Subsequent to the determination, Uch-II filed multiple requests / petitions in accordance with the provision of NEPRA Tariff (Standards & Procedure) Rules-1998 for review/modification and revision of modified determined generation tariff. Accordingly based on the requests of Uch-II Power, the determination / decisions / corrigendum issued by the Authority in the matter are listed as under:

- a. Determination of Reference Tariff dated April 24, 2009
- b. Determination on Motion for Review dated June 26, 2009
- c. Determination on Reconsideration Request dated by MoWP October 16, 2009
- d. Corrigendum on the Motion for Review dated December 28, 2010
- e. Determination on Tariff Modification Petition dated April 22, 2015
- f. Corrigendum on the Tariff Modification Decision dated May 12, 2015
- g. Determination on Motion for Review of Modification dated October 01, 2015
- h. Corrigendum - Decision of the Authority in the matter of Motion for Leave for Review filed by Uch-II Power (Private) Ltd. against the Decision of the Authority dated April 22, 2015 in the matter of Tariff Modification Petition dated Oct 22, 2015
(Collectively referred to as "Tariff Determination")

1.3. The determined levelled tariff of Uch-II vide tariff modification decision dated Oct 01, 2015 was Rs. 6.1889/kWh (US Cents 7.6929/kWh) which was required to be adjusted at Commercial Operations Date (hereinafter referred to as "COD"). Uch-II Power (Pvt) Limited (hereinafter referred to as "Uch-II" or "Petitioner") after commencing commercial operations with effect from April 04, 2014, through letter



dated August 11, 2016 submitted its request for adjustment of relevant components of its tariff. Accordingly, the decision of the Authority in the matter of COD tariff adjustment of Uch-II after commencing COD on April 04, 2014 was issued by the Authority on July 03, 2017.

- 1.4. Being aggrieved from the COD tariff adjustment decision of the Authority, Uch-II vide letter No Uch-II/NEPRA/MLRP/01/17 dated July 14, 2017 filed a review motion and requested an opportunity of hearing. The Authority admitted the referred review motion and notices were issued to parties to the proceedings i.e, Mr. Shams ul Arfin, Mr. Riaz Hanif Rahi as interveners and CPPA-G and PPIB as commentators. Hearing was held on September 21, 2017 at NEPRA Head Office and it was attended by the representatives of Uch-II, CPPA-G and PPIB. The grounds for the motion for leave for review, observations, analysis and decisions are given in the following paragraphs.

2. **Grounds for Motion For Leave For Review:**

- 2.1 The Petitioner has submitted following grounds in its Motion for Leave for Review.

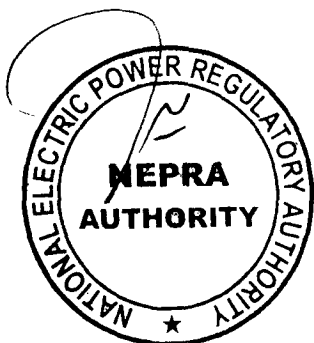
- a) O&M Mobilization Cost.
- b) Inadvertent Typo Errors.

2.2 **O& M Mobilization Cost :**

The Authority in the reference tariff determination dated April 24, 2009 allowed US\$ 1.00 million for the O & M mobilization cost as against the petitioner's claimed cost of US\$ 7.707 million. The claimed cost was based on the following budgetary quote received from Electricity Supply Board Of Ireland (ESBI);

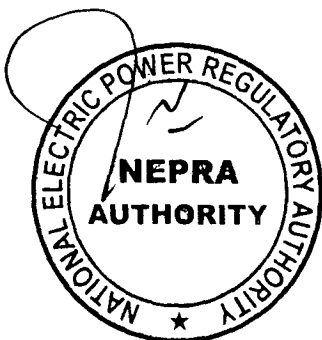
Options	Pre Operational phase (in M)	Pre Operational phase (in M)	Staff Members
1. Combined quote for both Uch-II and UPL (Only Uch-II related fee)	US\$ 6.850 + Rs. 6.296	* Equivalent US\$ 7.707	123
2. Uch-II on stand- alone basis	US\$ 9.604 +Rs. 107.501	Equivalent US\$ 11.037	74

- 2.3 The petitioner requested review of the Authority's aforementioned decision and requested US\$ 5.457 million based on the revised scope and revised quote received from ESBI, which was 50.56% reduced than the quote for Uch-II on standalone basis.



- 2.4 The Authority in the review motion decision dated June 26, 2009 revised the allowed O & M mobilization cost to US\$ 4.00 million. This reason for the increase from previous allowed US\$ 1.00 million to US\$ 4.00 million was that it was submitted by the Petitioner that it has to maintain high performance standards for which the company had to engage foreign experts. Further due to the location and size of the project the Petitioner would have to pay extra cost.
- 2.5 Later, the petitioner in its COD tariff adjustment request dated August 11, 2016 claimed US\$ 4.383 million which was not account of ESBI as claimed and approved earlier but instead was against its associated company UCH (Pvt) Ltd., (UPL). The petitioner while justifying its claim submitted that ESBI revised its quote to US\$ 4.5 million and refused to further reduce its fee quote as per the cost of US\$ 4.00 million allowed by the Authority. The Petitioner in support submitted that, subsequently, UPL in May 2010 being the subsidiary of ENGIE (formerly GDF Suez) globally took a strategic decision to self-perform the O&M activities with an aim to have direct management and control of operations, optimization of allocation of resources and responsibilities, and to enhance performance standards. It was also submitted that the O&M agreement with ESBI was also concluded 12 years prior to the completion of the term of the contract (term of the contract was 24 years from COD for UPL). The Petitioner therefore justified that ESBI's combined quote for Uch-II became irrelevant as a result considering the on-ground experience of UPL as well as ENGIE's, a French group having the largest power projects portfolio globally. Uch Power (Private) Limited (UPL) that is an associated company of Uch-II was appointed to provide O&M services for Uch-II on May 02, 2011 against this \$ 4.00 Million approved earlier by Authority for ESBI. The lump sum price agreed for the purpose was US\$ 3.5 million.
- 2.6 The Petitioner further submitted that a lump sum contract was made and the billing was made by UPL to Uch-II as per that O & M Agreement. The breakup of the billing claimed is reflected in table below:

Description	Amount US\$ in M
Fixed Operator Fee	1.500
Staff Fee	2.000
Additional cost due to delayed COD	0.883
Total	4.383



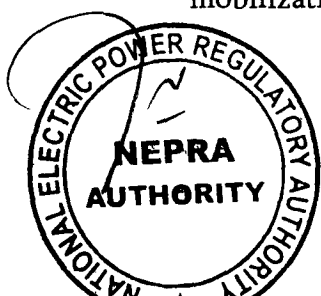


2.7 The Authority considered the claim of US\$ 4.383 million by Uch-II and decided not to allow O & M mobilization cost due to the following factors;

- The amount allowed for O & M mobilization in the tariff determination was against the quote of the Foreign Service provider i.e. ESBI whereas later the Petitioner appointed its associated company i.e. Uch Power Company Limited for the purpose.
- The cost allowed included the actual mobilization of the global experience expats and related team members whereas in this subsequent scenario the Uch Power Limited engaged was already based in Uch.
- The earlier claimed cost was against a complete organizational hierarchy of officials with global expertise that were to be dedicated for Uch-II along with ESBI head office (Ireland) support.
- The cost drivers, cost breakup & cost incidental were not available against this claim submitted for the associated company of the Petitioner and a lump sum payment arrangement has been agreed on account of fixed fee and staff fee.

2.8 Being aggrieved from the above referred decision of the Authority, Uch II in its review motion dated July 14, 2017 submitted following arguments for the claimed cost to be allowed:

- a. With regard to the appointment of UPL as an O & M contractor, the petitioner submitted that ESBI refused to further reduce its fee quote as per the cost allowed by the Authority. Budget estimate was arrived at considering the benefits to be gained from existing Uch Power (Private) Limited (UPL) facility and the joint run O & M operation between the existing UPL facility and the Uch II facility. Whereas, UPL in May 2010 being the subsidiary of ENGIE (formerly GDF Suez) with purpose of direct management and control of operations and for optimization of allocation of resources and responsibilities, terminated the O&M agreement with ESBI for UPL also. The Petitioner also justified that it was self operating its plant and the applicable quote provided by ESBI for Uch-II standalone services would have been US\$11.037 million as evidenced from the ESBI budgetary estimated quote submitted earlier to the Authority at the time of tariff determination.
- b. Against the Authority's earlier decision that the cost allowed included the actual mobilization of the global experienced expats and related team members, the



petitioner submitted that it was mentioned in ESBI's quote that it already had a staff base in Pakistan who were providing O&M services to two IPPs (1) UPL and (2) Rousch (Pakistan) Power Limited (RPPL). Therefore, the Authority's contention that amount claimed was for the mobilization of ESBI is not consistent with the Petitioner's submission. The Petitioner also justified that the Authority must appreciate that the current structure of the O&M Agreement with UPL, being a subsidiary of ENGIE, is similar to what was submitted earlier for ESBI which already had the local establishment providing O&M services at UPL and RPPL at the time.

- c. The petitioner has submitted that during the cost verification process, the Project Company submitted organogram of the UPL and Uch-II. Over fifty (50) dedicated personnel were hired for Uch-II, in addition to staff at UPL supervising. A dedicated expatriate was also engaged during this process along with head office support from ENGIE. ENGIE regional office played an instrumental role in training of personnel, establishing processes which are internationally accepted.
- d. The petitioner further submitted that in view of the observation of the Authority, the O&M Mobilization cost break up is not available. Project company has engaged O&M contractor for the project on a fixed lump sum fee which is the same as was the case with ESBI. As per the O & M Agreement submitted the cost was payable to the O&M Contractor on monthly basis upon performance of certain services as provided in the O&M Agreement.

3. **Hearing:**

- 3.1 The hearing in the matter was held on Sep 21, 2017 at NEPRA Head Office. The petitioner during the hearing reiterated the above referred arguments and revised its claimed O & M Cost to US\$ 3.83 million incurred upto the allowed COD instead of previous claim of US\$ 4.383 million till actual COD. The Authority during the hearing acknowledged the need for mobilization cost in such projects but asked for the corroborative evidence of prudent cost incurred. Particularly considering that the contract has been awarded to the associated company already based in UCH.
- 3.2 The Petitioner during the hearing again expressed that the UCH II engaged Uch Power Company its associated company, as O&M Contractor for the Project on a fixed lump sum fee which is the same as was agreed with ESBI. As per the O & M Agreement this cost was payable to the O&M Contractor on monthly basis. The petitioner also submitted that all the O&M Contracts are framed in the same manner as is done by the Project Company. It was also expressed that cost driver based justification cannot be provided since normally O&M Contractor is not obligated to

provide breakup of the costs incurred by it on the activities being performed for the Project Company.

- 3.3 Further to above during the hearing the Authority also asked the rationale of this cost in view of O & M mobilization cost allowed to other power projects of the similar nature. CPPA during the hearing expressed that they would also support that the justification and rationale of the cost be submitted by the Petitioner, however the representatives of PPIB expressed that they are indifferent on the view.

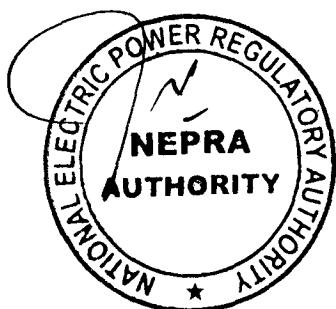
4. **Petitioner's submissions after hearing:**

- 4.1 As desired by the Authority during the hearing, later the petitioner vide letter No 1.2.9/NEPRA dated Sep 29, 2017 submitted the documentary evidence for the O & M Mobilization cost claimed at COD, which includes:

- Breakdown of the total payments made
- O & M Agreement
- Invoices raised by O & M contractor
- Bank payment instruction
- Bank statement
- Reconciliation of O & M mobilization cost with audited financial statements
- Evidence of tax deducted and paid from O&M contractor payments
- Parent company guarantee under the O & M agreement for performance of services therein
- Direct O&M Agreement executed between Uch-II lenders and the O & M contractor
- Detailed organogram of employees working under O & M Agreement
- List of deliverables prior to COD under O & M Agreement
- Comparison of ESBI's and UPL's scope of services as an O & M contractor

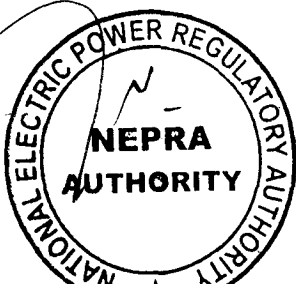
- 4.2 The petitioner in its submission stated that as directed by Authority, it has reviewed the COD true-up tariff determination of few IPPs such as Attock Gen Limited, Atlas Power Limited, Nishat Power Limited, Nishat Chunian Power Limited and observed that the Authority has allowed full O & M mobilization cost at COD as was allowed in the reference tariff determination, without any specific additional requirements.

- 4.3 Likewise, in the matter of Saif Power Company Limited the Authority did not allow the claimed O & M mobilization cost of US\$ 3 million at the time of reference tariff determination due to non-provision of supporting evidence. Later, at the time of COD, the Authority allowed US\$ 4.225 million as per the actual based on the



documentary evidence provided by the sponsor including O & M Agreement, Commercial Invoices, Bank Statement and Audited accounts.

- 4.4 Explaining the fee structure, the Petitioner submitted that the pre-COD fee under the Uch-II O&M Agreement is categorized into two components which are "Staff Fee" and "Operator Fixed Fee" to capture the associated cost of providing the O&M services. This bifurcation is in line with the generally accepted practice in the O&M contracts. "Staff Fee" captures all costs associated with staff mobilized at site as well as staff at head office for provision of technical, managerial, administrative and other support activities during the pre-COD period.
- 4.5 In view of the tariff determination, which had allowed cost for ESBI, Petitioner also submitted that there was no agreement signed with ESBI for Uch-II Power (Private) Limited (Uch-II) Project. Uch-II requested the O&M Mobilization cost in its reference tariff petition before NEPRA based on indicative quote received from ESBI. As ESBI did not agree to the cost allowed by NEPRA, accordingly, Uch-II had to explore other options and eventually after the corporate merger of International Power Plc ("IP" -parent company of Uch-II) and ENGIE (formerly GDF Suez), entered into an O&M contract with UPL to have the reliable expertise. The Petitioner also justified that international lenders, who are typically very conservative and pre-approve the main project counterparties including the O&M contractor, allowed the appointment of the affiliate (UPL) as the O&M contractor subject to the performance guarantee which was issued by the main sponsor, IP.
- 4.6 The Authority noted that O&M mobilization cost of around 1% of EPC Costs is normally allowed to thermal projects. However due to inconsistency in EPC Costs for different projects it was further noted that projects with higher EPC Cost/MW (installed) have been allowed a lower O&M mobilization cost as a percentage of EPC cost, whereas for those projects having lower EPC cost/MW, have been allowed, higher O&M mobilization cost as a percentage of EPC Cost. For instance in case of RLNG projects i.e Bhikki, Balloki, HBS and Punjab Thermal, their EPC Costs/MW (installed) range between US\$ 0.416 million to US\$ 0.450 million per MW which are relatively on the lower side, these projects have been allowed O&M mobilization costs around 1% of their EPC Costs. Similarly for Nandipur also a higher mobilization cost as percentage of EPC cost has been allowed, as its EPC Cost/MW (installed) is relatively very low. In comparison EPC Cost/MW (installed) for Foundation Power is US\$ 0.824 million per MW for which NEPRA has determined O&M mobilization cost of 0.83% of EPC Cost.
- 4.7 The Authority also noted that for Uch-II the EPC Cost/MW (installed) ratio works out as US\$ 0.911 million per MW which is even higher than Foundation Power cost.

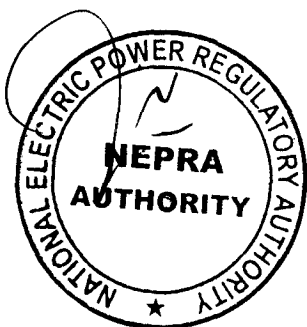


Therefore to be consistent with above findings. Most importantly, the O&M mobilization cost was allowed considering the quote of ESBI, an international company and the very basis/ground of allowing the cost do not exist now. Had this fact known to the Authority at the tariff determination, the Authority would have allowed a much lower cost. Since the very basis and justification of allowing the cost does not exist therefore the Petitioner has no locus standi to claim the same cost, specifically it has been done by its associated company. Therefore considering all above factors Authority has decided to allow US\$ 2.48 million as O&M Mobilization Cost.

5. Typo Errors

5.1 Further to above, Uch-II vide its letter No 1.2.9/NEPRA/ar dated July 10, 2017 highlighted certain typo errors in the Authority's COD tariff adjustment decision of Uch-II issued vide letter dated July 03, 2017 which requires rectification. The corrections are as under;

- i. In para 1.1 bullet (f) is added as "Corrigendum decision of the Authority dated Oct 22, 2015 in the matter of Motion for Leave for Review filed by Uch-II Power (Private) Ltd. against the Decision of the Authority in the matter of Tariff Modification Petition".
- ii. In second line of Para 2.1 the date of the tariff determination should be read as June 26, 2009 and the date of tariff modification decision should be read as April 22, 2015.
- iii. In para 2.5.2.3, US\$ 24.226 million should be read as US\$ 24.266 million.
- iv. In para 4.3 and 4.12 after LIBOR + 450 basis points, EURIBOR +450 basis points is added.
- v. In para 5.11 the amount Rs. 893.327 million should be read as Rs. 898.309 million.
- vi. In para 10.4 the amount of stock stacker of Rs. 4.069 million should be read as Rs. 4.080 million.
- vii. In para 11.3 the amount of Non LTSA should be read as US\$ 4.878 million and Rs. 478.603 million instead of US\$ 4.846 million and Rs. 490 million.
- viii. In line 2 of para 21.2 the amount US\$ 460.931 million (Rs. 38,423.224 million) should be read as US\$ 460.958 million (Rs. 42,677.127 million).
- ix. In para 29.1 the referred capacity should be read as 375.20 MW instead of 370.20 MW.
- x. In para 30.1 the revised fuel price should be read as Rs. 527.574 /MMbtu instead of Rs. 403.071/MMBTU.
- xi. In para 28.5 "1st Year (Jan 9, 2014-Jan 8,2015)" should be read as "1st Year of Commercial Operations". The total US\$ in million 0.016 of Lender's Legal Advisor should be read as 0.017. Resultantly, the total of US\$ in million 0.252 should be read as US\$ in million as 0.253.
- xii. In para 29.1 the referred capacity should be read as 375.20 MW instead of 370.20 MW.
- xiii. In para 30.1 the revised fuel price should be read as Rs. 527.574 /MMbtu instead of Rs. 403.071/MMBTU.



6. ORDER

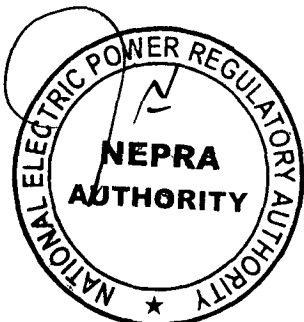
- I. Pursuant to section 31 (4) of Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 read with Rule 6 of the NEPRA Licensing (Generation) Rules 2000, Uch-II Power (Pvt.) Limited (Uch-II) is allowed to charge the following specified tariff for delivery of electricity to the CPPA-G for procurement on behalf of Ex-WAPDA Distribution Companies:

REFERENCE SPECIFIED TARIFF

Tariff Components	Year 1 to10	Year 11to 14	Year 15to 25	Indexation
Capacity Charge PKR/kW/Hour				
O&M Foreign	0.1820	0.1820	0.1820	US\$ /PKR & US CPI
O&M Local	0.1130	0.1130	0.1130	CPI
Insurance	0.0891	0.0891	0.0891	US\$ /PKR
Debt Service	Annex-II & III	Annex-II & III	-	LIBOR/EURIBOR
Return on Equity	0.5501	0.5501	0.5501	US\$/PKR
ROE during Construction	0.1586	0.1586	0.1586	US\$ /PKR
Energy Charge on Operation on Gas Rs./kWh				
Fuel Cost Component	4.0445	4.0445	4.0445	Fuel Price
Variable O&M Foreign	0.1686	0.1686	0.1686	US\$ /PKR & US CPI
Local	0.0408	0.0408	0.0408	WPI

Note:

- The levelized tariff over the life of 25 years at a notional 60% plant factor and 10% discount rate has been determined as Rs.7.7054/kWh.
- The applicable component wise tariff is indicated at **Annex-I**.
- Debt Servicing Schedule is attached as **Annex-II and Annex-III**.
- The Annex I, II & III are the inherent part of this Order.
- Debt Service component will be adjusted for exchange rate variation for currencies in which the borrowing is taken permissible GOP policy.




The following adjustments /indexations shall be applicable to reference tariff;

II. 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 the production of authentic documentary evidence by Uch-II according to the following formula;

$$\text{Insurance}_{(\text{Adj})} = \text{AIC} / P_{(\text{Ref})} * P_{(\text{Act})} / 105.3 * ER_{(\text{Rev})}$$

Where;

AIC = Adjusted Insurance Component (Rs. kW/hr) as per IDC Test

$P_{(\text{Ref})}$ = Reference Insurance Premium Rs. (297.178 million) US\$ 2.822 million

$P_{(\text{Act})}$ = Actual Premium or 1.35% of the adjusted EPC whichever is lower

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

III. Adjustment of Lender's Fee as per actual:

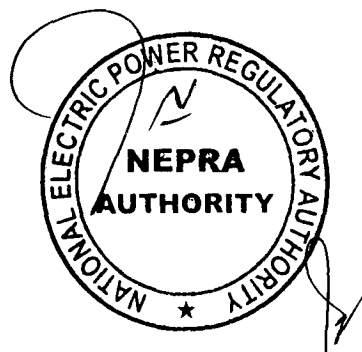
The Letter of Credit cost with respect to Debt Service Reserve Account (DSRA) during the term of debt shall be treated as Pass-Through Item at actual on yearly basis subject to provision of authentic documentary evidence.

In addition, the lenders' advisors' fees (including technical legal, insurance, Trustees, inter-creditor agents, administrators, supervisors etc.) paid by Uch-II shall also be treated as Pass-Through Item during the term of debt at actual, not exceeding US\$ 0.500 million per annum, on yearly basis subject to provision of authentic documentary evidence.

IV. Adjustment in Return on Equity (ROE):

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

$$ROE_{(\text{Rev})} = ROE_{(\text{Ref})} * ER_{(\text{Rev})} / ER_{(\text{Ref})}$$





Where:

$ROE_{(Rev)}$ = The revised ROE component of the Capacity Purchase Price

$ROE_{(Ref)}$ = The reference ROE component of the Capacity Purchase Price determined at the time of COD

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

$ER_{(Ref)}$ = The reference exchanges rate of PKR 105.3 = 1 US\$.

V. Adjustment of Return on Equity during Construction (ROEDC)

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

$$ROEDC_{(Rev)} = ROEDC_{(Ref)} * ER_{(Rev)} / ER_{(Ref)}$$

Where:

$ROEDC_{(Rev)}$ = The revised ROEDC component of the Capacity Purchase Price

$ROEDC_{(Ref)}$ = The reference ROEDC component of the Capacity Purchase Price determined at the time of COD

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

$ER_{(Ref)}$ = The reference exchanges rate of PKR 105.3 = 1 US\$.

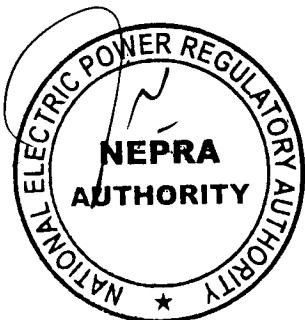
VI. Adjustment of Withholding Tax:

Withholding tax will be adjusted on account of exchange rate variation according to the following formula:

$$WT_{(Rev)} = WT_{(Ref)} * ER_{(Rev)} / 105.3$$

Where;

$WT_{(Rev)}$ = Revised Withholding tax



WT _(Ref)	=	Reference Withholding tax
ER _(Rev)	=	The revised TT&OD selling rate of US dollar as notified by the National Bank of Pakistan

VII. Pass-Through Items

No provision for income tax, workers' profit participation fund and workers' welfare fund, any other tax, excise duty or other duty, levy, charge, surcharge or other governmental impositions, payable on the generation sales, has been accounted for in the tariff. If Uch-II is obligated to pay any tax on the income purely generated from its main operation i.e. generation of electric power, the exact amount should be reimbursed by CPPA/CPPA-G on production of the original receipts. This payment may be considered as pass-through (Rs./kW/hr) payment spread over a 12 months period in addition to the capacity purchase price in the Reference Tariff. Furthermore, in such a scenario, Uch-II may also submit to the CPPA details of any tax shield savings and the CPPA will deduct the amount of these savings from its payment to Uch-II on account of taxation.

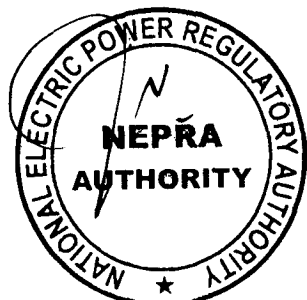
Withholding tax on dividend is a pass-through item, which is allowed in accordance with the Government Guidelines for determination of tariff for new IPPs. In a reference tariff table, withholding tax number is indicated as reference and CPPA (NTDC/CPPA-G) shall make payment on account of withholding tax at the time of actual payment of dividend subject to maximum of 7.5% of 15% equity at the time of hourly payment (Rs./kW/hour) spread over a 12 months period according to the following formula:

$$\text{Withholding Tax Payable} = [(15\% * (E_{(Ref)} - E_{(Red)}) + ROEDC_{(Ref)}) * 7.5\% * ER_{(Rev)}] / 105.3$$

Where:

E _(Ref)	=	Adjusted Reference Equity at COD
E _(Red)	=	Equity Redeemed
ROEDC _(Ref)	=	Reference Return on Equity During Construction
ER _(Rev)	=	The revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan

In case the Uch-II 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 Uch-II 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.

VIII. Indexations:

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

a) Indexation applicable to O&M

The Fixed O&M local component of Capacity Charge will be adjusted on account of Inflation (CPI) and Fixed O&M foreign component on account of variation in US CPI and dollar/Rupee exchange rate. 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 (FBS), US CPI issued by US Bureau of Labor Statistics and revised IT & 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

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

$$F O\&M_{(FREV)} = \text{Rs. } 0.1820 / \text{kW} / \text{Hour} * US CPI_{(REV)} / 233.049 * ER_{(REV)} / 105.3$$

$$F O\&M_{(LREV)} = \text{Rs. } 0.1130 / \text{kW} / \text{Hour} * CPI_{(REV)} / 188.68$$

Where:

$F O\&M_{(FREV)}$ = The revised foreign Fixed O&M Foreign Component of tariff

$F O\&M_{(LREV)}$ = The revised local Fixed O&M Local Component of tariff

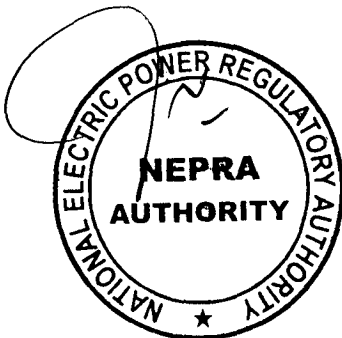
$CPI_{(REV)}$ = The revised Consumer Price Index-General

$CPI_{(REF)}$ = The reference Consumer Price Index-General of 188.68 of December 2013

$US CPI_{(REV)}$ = The revised US CPI (All Urban Consumers)

$US CPI_{(REF)}$ = Reference US CPI of 233.049 for December 2013

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





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

ii) **Variable O&M**

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

$$V O\&M_{(FREV)} = \text{Rs. } 0.1686/\text{kWh} * \text{US CPI}_{(REV)}/233.049 * ER_{(REV)}/105.3$$

$$V O\&M_{(LREV)} = \text{Rs. } 0.0408/\text{kWh} * \text{CPI}_{(REV)}/188.68$$

Where:

$VO\&M_{(FREV)}$ = The revised foreign Variable O&M Foreign Component of tariff

$V O\&M_{(LREV)}$ = The revised local variable O&M Local Component of tariff

$CPI_{(REV)}$ = The revised Consumer Price Index-General

$CPI_{(Ref)}$ = Reference Consumer Price Index-General of 188.68 of December 2013

$US CPI_{(REV)}$ = The revised US CPI (All Urban Consumers)

$US CPI_{(REF)}$ = Reference US CPI of 233.049 for December 2013

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

iii) **Adjustment for EURIBOR and LIBOR variation**

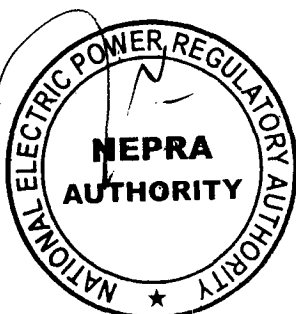
The interest part of fixed charge component will remain unchanged throughout the term except for the adjustment due to variations in interest rate as a result of variation in quarterly EURIBOR and LIBOR according to the following formula;

$$\Delta I (\text{Foreign Debt-US\$}) = P_{(FREV)} * (LIBOR_{(REV)} - 0.2466\%) / 4$$

$$\Delta II (\text{Foreign Debt-Euro}) = P_{(FREV)} * (EURIBOR_{(REV)} - 0.293\%) / 4$$

Where:

$\Delta I (\text{US\$ debt})$ = the variation in interest charges applicable corresponding to variation in quarterly LIBOR. ΔI can be positive or negative depending upon whether $LIBOR_{(REV)} > \text{or} < 0.2466\%$. The interest payment obligation will be enhanced or reduced to the extent



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of Δ II for each quarter under adjustment applicable on quarterly basis.

Δ II(Euro debt) = the variation in interest charges applicable corresponding to variation in quarterly EURIBOR. Δ II can be positive or negative depending upon whether EURIBOR (Rev) > or < 0.293%. The interest payment obligation will be enhanced or reduced to the extent of Δ III for each quarter under adjustment applicable on quarterly basis.

P(REV) = is the outstanding principal (as indicated in the attached debt service schedule to this order) on a quarterly basis on the relevant quarterly calculations date. Period 1 shall commence on the date on which the 1st installment is due after availing the grace period.

Note: Foreign debt and its interest shall be adjusted on account of actual variation in PKR/US\$, PKR/Euro over the applicable reference PKR/US\$, PKR/Euro exchange rate on quarterly basis basis.

iv) 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 agreed between OGDCL and the Petitioner and duly approved by the competent Authority. In this regard, the fuel cost component of tariff shall be revised according to the following formula:

$$FC_{(Rev)} = FC_{(Adj)} \text{ per kWh} * FP_{(Rev)} / FP_{(Ref)}$$

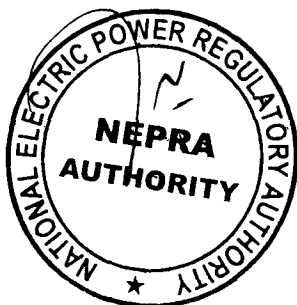
Where:

$FC_{(Rev)}$ = The revised fuel cost component of Variable Charge on low BTU gas.

$FP_{(Rev)}$ = The new price of gas as agreed between OGDCL and the Petitioner and approved by the competent Authority

$FP_{(Ref)}$ = The reference price of gas is US\$ 5.0102 / MMBTU adjusted for HHV-LHV factor of 1.109 and exchange rate of Rs. 105.30/US\$.

$FC_{(Adj)}$ = Adjusted fuel cost component subsequent to heat rate test at COD






Adjustment on account of local inflation, foreign inflation, foreign exchange variation, , LIBOR and EURIBOR variation and fuel price variation will be approved and announced by the Authority for immediate application within seven working days after receipt of Uch-II request for adjustment in accordance with the requisite indexation mechanism stipulated herein.

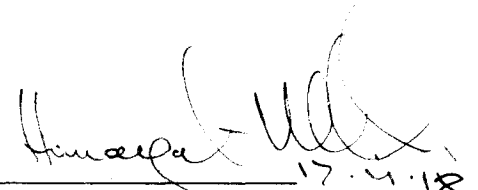
IX. Terms and Conditions of Tariff:

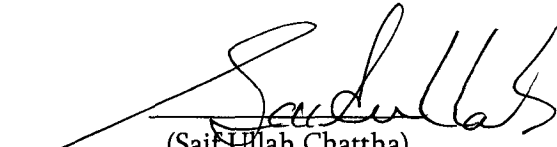
- i) Capacity Charge (Rs./kW/hour) applicable to dependable capacity at the delivery point.
- ii) The tariff is applicable for a period of 25 years commencing from the date of the Commercial Operation.
- iii) Use of Low BTU Gas is allowed as single fuel for operation of the plant.
- iv) All new equipment will be installed and the plant will be of standard configuration. The plant availability shall be 90%.
- vi) Dispatch criterion will be based on the Energy Charge.
- vii) Scheduled Outage periods per annum shall be in accordance with the 2006 standardized PPA.
- viii) NTDCL will be responsible for constructing the interconnection to the grid.
- ix) All invoicing and payment terms are assumed to be in accordance with the 2006 standardized PPA.
- x) Tolerance in Dispatch shall be in accordance with the 2006 standardized PPA.
- xi) If there is any change in any assumption that may lead to change in the tariff shall be referred to NEPRA for approval.
- xii) No corporate income tax and no minimum turnover tax have been assumed.

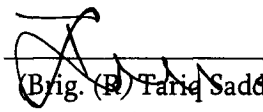
AUTHORITY


(Rehmatullah Baloch)
Member


(Syed Masood ul Hassan Naqvi)
Member


(Himayat Ullah Khan)
Member


(Saif Ullah Chattha)
Vice Chairman


(Brig. (R) Tariq Sadeezai)
Chairman

18.4.2018



24-4-18

UCH II Power (Private) Limited
Reference Tariff Schedule

Year	Energy Charge (PKR/kWh)				Capacity Charge (PKR/kW/Hr)										CPP		Tariff
	Fuel	Variable O&M	Variable O&M	Total	Fixed O&M-	Fixed O&M-	Insurance	Return on	ROE during	Withholding	Loan	Interest	Lender's fee	Total	60% Plant Factor PKR/kWh	PKR per kWh	
		Local	Foreign		Local	Foreign		Equity	construction	Tax @7.5%	Repayment	Charges					
1	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	0.6367	0.5222	0.0080	2.3129	3.8548	8.1087	
2	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	0.6925	0.4905	0.0080	2.3370	3.8950	8.1489	
3	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	0.7533	0.4572	0.0080	2.3645	3.9408	8.1947	
4	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	0.8194	0.4184	0.0080	2.3918	3.9863	8.2402	
5	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	0.8913	0.3775	0.0080	2.4228	4.0380	8.2919	
6	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	0.9695	0.3330	0.0080	2.4565	4.0942	8.3481	
7	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	1.0546	0.2855	0.0080	2.4941	4.1568	8.4107	
8	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	1.1471	0.2320	0.0080	2.5331	4.2218	8.4757	
9	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	1.2478	0.1748	0.0080	2.5766	4.2943	8.5482	
10	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	1.3573	0.1126	0.0080	2.6239	4.3732	8.6271	
11	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	1.4764	0.0451	0.0080	2.6755	4.4592	8.7131	
12	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	-	-	-	1.1460	1.9100	6.1639	
13	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	-	-	-	1.1460	1.9100	6.1639	
14	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	-	-	-	1.1460	1.9100	6.1639	
15	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	-	-	-	1.1460	1.9100	6.1639	
16	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	-	-	-	1.1460	1.9100	6.1639	
17	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	-	-	-	1.1460	1.9100	6.1639	
18	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	-	-	-	1.1460	1.9100	6.1639	
19	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	-	-	-	1.1460	1.9100	6.1639	
20	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	-	-	-	1.1460	1.9100	6.1639	
21	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	-	-	-	1.1460	1.9100	6.1639	
22	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	-	-	-	1.1460	1.9100	6.1639	
23	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	-	-	-	1.1460	1.9100	6.1639	
24	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	-	-	-	1.1460	1.9100	6.1639	
25	4.0445	0.0408	0.1686	4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	-	-	-	1.1460	1.9100	6.1639	
Levelized Tariff (1-25 Years)				4.2539	0.1130	0.1820	0.0891	0.5501	0.1586	0.0532	0.6636	0.2556	0.0057	2.0709	3.4515	7.7054	

Net Capacity

380.7500 MW

Reference Exchange Rate (US\$/Rs.)

105.3000 US\$/Rs.

Reference US CPI

233.049 for Dec 2013 as notified by the US Labour Bureau of Labor Statistics

Reference CPI (Manufacturer)

188.68 for Dec 2013 as notified by the Federal Bureau of Statistics

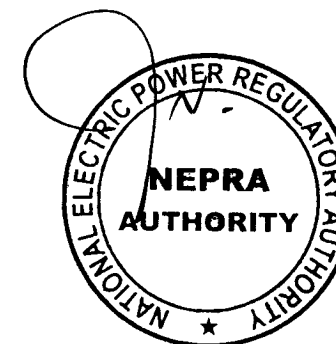
Efficiency

49.360% (Minimum)

Levelized Tariff

Levelized tariff in US Cents

7.3176 /kWh



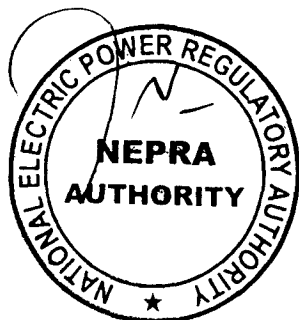
Uch II Power (Pvt) Limited)

Debt Servicing Schedule (Euro Loan)

Euro Facility

EURIBOR	0.2930%
Spread	4.5000%
All-in Rate	4.7930%
Conversion Rate Rs.	143.44
Debt Repayment	11 Years

Period	DFI Euro Facility				Conversion PKR		Tariff Components		
	Outstanding	Principal	Interest	Debt Servicing	Principal	Interest	Principal	Interest	Debt Servicing
	Euro in million	Euro in million	Euro in million	Euro in million	Rs. in million	Rs. in million	Rs./kW/hr	Rs./kW/hr	Rs./kW/hr
1	100.99	1.41	1.21	2.62					
2	99.58	1.44	1.21	2.65					
3	98.14	1.47	1.20	2.67					
4	96.67	1.50	1.18	2.69					
Year 1	100.99	5.82	4.80	10.62	835.00	688.92	0.2503	0.2066	0.4569
5	95.17	1.53	1.14	2.67					
6	93.64	1.57	1.13	2.70					
7	92.07	1.60	1.13	2.73					
8	90.47	1.63	1.11	2.74					
Year 2	95.17	6.33	4.51	10.84	908.23	647.03	0.2723	0.1940	0.4663
9	88.84	1.67	1.08	2.74					
10	87.17	1.70	1.06	2.76					
11	85.47	1.74	1.05	2.79					
12	83.73	1.78	1.03	2.80					
Year 3	88.84	6.89	4.20	11.09	987.92	603.15	0.2962	0.1808	0.4770
13	81.95	1.81	0.98	2.80					
14	80.14	1.85	0.97	2.82					
15	78.28	1.89	0.96	2.85					
16	76.39	1.93	0.94	2.87					
Year 4	81.95	7.49	3.85	11.34	1,074.60	551.88	0.3222	0.1655	0.4876
17	74.46	1.97	0.89	2.87					
18	72.49	2.02	0.88	2.89					
19	70.47	2.06	0.86	2.92					
20	68.41	2.10	0.84	2.94					
Year 5	74.46	8.15	3.47	11.62	1,168.90	497.96	0.3505	0.1493	0.4998
21	66.31	2.15	0.79	2.94					
22	64.16	2.19	0.78	2.97					
23	61.97	2.24	0.76	3.00					
24	59.73	2.29	0.73	3.02					
Year 6	66.31	8.86	3.06	11.93	1,271.49	439.31	0.3812	0.1317	0.5129
25	57.45	2.34	0.70	3.03					
26	55.11	2.38	0.67	3.05					
27	52.73	2.44	0.65	3.08					
28	50.29	2.49	0.62	3.10					
Year 7	57.45	9.64	2.63	12.27	1,383.05	376.61	0.4147	0.1129	0.5276
29	47.80	2.54	0.57	3.11					
30	45.26	2.59	0.55	3.14					
31	42.67	2.65	0.52	3.17					
32	40.02	2.71	0.49	3.20					
Year 8	47.80	10.49	2.13	12.62	1,504.41	306.12	0.4510	0.0918	0.5428
33	37.32	2.76	0.45	3.21					
34	34.55	2.82	0.42	3.24					
35	31.73	2.88	0.39	3.27					
36	28.85	2.94	0.35	3.30					
Year 9	37.32	11.41	1.61	13.02	1,636.44	230.63	0.4906	0.0691	0.5598
37	25.91	3.01	0.31	3.32					
38	22.90	3.07	0.28	3.35					
39	19.83	3.13	0.24	3.38					
40	16.70	3.20	0.20	3.41					
Year 10	25.91	12.41	1.04	13.44	1,780.01	148.52	0.5337	0.0445	0.5782
41	13.50	3.27	0.16	3.43					
42	10.23	3.34	0.12	3.46					
43	6.89	3.41	0.08	3.49					
44	3.48	3.48	0.04	3.52					
Year 11	13.50	13.50	0.41	13.91	1,936.20	59.46	0.5805	0.0178	0.5983



Uch II Power (Pvt) Limited)

Debt Servicing Schedule (US\$ Loan)

US \$ Loan

LIBOR	0.2466%
Spread	4.5000%
All-in Rate	4.75%
Conversion Rate (Rs)	105.30
Debt Repayment	11 Years

Period	DFI US\$ Facility				Conversion PKR		Tariff Components		
	Outstanding Loan	Principal	Interest	Debt Servicing	Principal	Interest	Principal	Interest	Debt Servicing
	US \$ in million	US \$ in million	US \$ in million	US \$ in million	Rs. in million	Rs. in million	Rs./kW/hr	Rs./kW/hr	Rs./kW/hr
1	212.31	2.96	2.52	5.48					
2	209.35	3.03	2.51	5.54					
3	206.32	3.09	2.50	5.59					
4	203.23	3.16	2.47	5.62					
Year 1	212.31	12.24	10.00	22.24	1,288.65	1,052.91	0.3864	0.3157	0.7020
5	200.07	3.22	2.37	5.60					
6	196.85	3.29	2.36	5.65					
7	193.56	3.36	2.35	5.71					
8	190.20	3.43	2.31	5.74					
Year 2	200.07	13.31	9.39	22.70	1,401.66	988.88	0.4202	0.2965	0.7167
9	186.76	3.51	2.24	5.75					
10	183.26	3.58	2.20	5.78					
11	179.68	3.66	2.18	5.84					
12	176.02	3.73	2.14	5.87					
Year 3	186.76	14.48	8.75	23.23	1,524.64	921.83	0.4571	0.2764	0.7335
13	172.28	3.81	2.04	5.86					
14	168.47	3.90	2.02	5.92					
15	164.57	3.98	2.00	5.97					
16	160.60	4.06	1.95	6.01					
Year 4	172.28	15.75	8.01	23.76	1,658.43	843.47	0.4972	0.2529	0.7501
17	156.53	4.15	1.86	6.01					
18	152.39	4.24	1.83	6.07					
19	148.15	4.33	1.80	6.12					
20	143.82	4.42	1.74	6.16					
Year 5	156.53	17.13	7.23	24.36	1,803.94	761.06	0.5409	0.2282	0.7690
21	139.40	4.51	1.65	6.17					
22	134.89	4.61	1.62	6.23					
23	130.28	4.71	1.58	6.29					
24	125.57	4.81	1.52	6.33					
Year 6	139.40	18.64	6.38	25.01	1,962.27	671.42	0.5883	0.2013	0.7896
25	120.77	4.91	1.45	6.36					
26	115.86	5.01	1.39	6.40					
27	110.85	5.12	1.34	6.46					
28	105.73	5.23	1.28	6.51					
Year 7	120.77	20.27	5.47	25.74	2,134.44	575.59	0.6399	0.1726	0.8125
29	100.50	5.34	1.19	6.53					
30	95.16	5.45	1.14	6.59					
31	89.71	5.57	1.09	6.66					
32	84.14	5.69	1.02	6.71					
Year 8	100.50	22.05	4.44	26.49	2,321.74	467.85	0.6961	0.1403	0.8364
33	78.45	5.81	0.93	6.74					
34	72.64	5.93	0.87	6.80					
35	66.71	6.06	0.81	6.87					
36	60.65	6.19	0.74	6.92					
Year 9	78.45	23.98	3.35	27.33	2,525.50	352.48	0.7572	0.1057	0.8629
37	54.47	6.32	0.65	6.96					
38	48.15	6.45	0.58	7.03					
39	41.70	6.59	0.51	7.09					
40	35.11	6.73	0.43	7.16					
Year 10	54.47	26.09	2.16	28.24	2,747.07	226.99	0.8236	0.0681	0.8917
41	28.38	6.87	0.34	7.21					
42	21.51	7.02	0.26	7.28					
43	14.49	7.17	0.18	7.34					
44	7.32	7.32	0.09	7.41					
Year 11	28.38	28.38	0.86	29.24	2,988.12	90.88	0.8959	0.0272	0.9231

