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National Electric Power Regulatory Authority

Islamic Republic of Pakistan

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No. NEPRA/TRF-266/UCH-II-2014/14416-18
October 1, 2015

Subject: 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 [Case # NEPRA/TRF-266/UCH-II-2014]

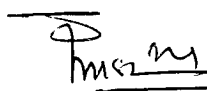
Dear Sir,

This is in continuation of this office letter No. NEPRA/TRF-266/Uch-II-2014/6206-6208 dated April 22, 2015 whereby Decision of the Authority in the matter of Tariff Modification Petition filed by Uch-II Power (Pvt.) Ltd. (UCH-II) was sent to the Federal Government for notification in the official Gazette.

2. Please find enclosed herewith the decision of the Authority along with Annex-I & Annex-II(b) (18 pages) in the matter of Motion for Leave for Review filed by Uch-II Power (Pvt.) Ltd. against NEPRA's Decision dated 22.04.2015 in Case No. NEPRA/TRF-266/Uch-II-2014.

3. The Decision of the Authority 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).

Enclosure: As above


01.10.15
(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, 'Q' Block, Pak Secretariat, Islamabad.



**DECISION OF THE AUTHORITY IN THE MATTER OF MOTION FOR LEAVE FOR REVIEW
FILED BY UCH-II POWER (PRIVATE) LIMITED AGAINST THE DECISION OF THE AUTHORITY
DATED APRIL 22, 2015 IN THE MATTER OF TARIFF MODIFICATION**

1. Introduction:

- 1.1. UCH-II Power (Pvt) Limited (herein after referred as 'UCH-II' or 'the Petitioner' or as 'the company') is a generation licensee of National Electric Power Regulatory Authority (hereinafter referred as the "Authority"). A decision in the matter of tariff modification was given by the Authority on April 22, 2015. Being aggrieved with the said decision, UCH-II filed a motion for leave for review on April 30, 2015 under Rule 16(6) of NEPRA (Tariff Standards and Procedure) Rules, 1998 (hereinafter referred as the "Rules").
- 1.2. In the motion for leave for review, UCH-II sought review to the extent of the following items:
- i. **EPC Cost**
 - a) FME related Cost
 - b) Furniture and Fixture
 - ii. **Non-EPC Cost**
 - a) Startup and Production Cost
 - b) Sabotage and Terrorism Insurance (S & T Insurance)
 - c) Residential Colony

2. Proceedings:

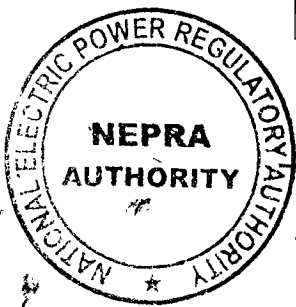
The motion for leave for review was admitted by the Authority on May 26, 2015. Hearing in the instant case was held on Jun 18, 2015 at NEPRA Tower, G-5/1, Islamabad. The hearing was attended by UCH-II and NTDCL. Having heard the contentions raised during the course of hearing and after having gone through the relevant record and documentary evidences, the Authority on respective points agitated by the Petitioner has decided as follows:

3. EPC Cost:

3.1 FME Related Cost

The Petitioner had requested the Authority to allow a cost of Rs. 40.185 million (equivalent to US \$ 0.499 million) in the review motion owing to a Force Majeure Event (herein after referred as 'FME') due to record heavy rainfall in September, 2012. The breakup of the claimed FME related cost is given below;

Cost Details	PKR
Detention and Demurrage Charges	31,669,426
Bridge Repair Cost (i.e. placement of frame structure)	4,149,505





Road Repair Cost	4,366,839
Total Cost	40,185,770

3.1.2 The Petitioner in its review petition has claimed that the cost associated with a FME should be allowed to it as a part of EPC cost. The submissions of the Petitioner on this claim are reproduced as under:

- This cost is related to the one in a hundred year rain experience at site.
- The rain caused damage to the roads, bridges and infrastructure leading to the site.
- Delivery of the critical equipment (Gas Turbines, Generators etc) to site was delayed.
- PPIB and NTDC recognized the impact to the project related to the delayed deliveries of critical equipment.
- The National Highway Authority (and other government entities) were overwhelmed resulting in delays fixing the roads and bridges.
- The Petitioner in an effort to mitigate the impact on the project under took the repair work of the roads / bridges and making them useable for delivery of equipment at site.

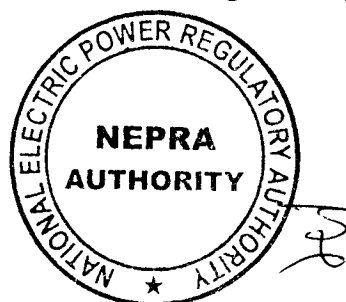
3.1.2 The Petitioner further submitted that both NTDC and PPIB were timely informed about the FME of September 2012. NTDC and PPIB vide letter no GM/ (CPPA)/DGMF and 7(708)PPIB-1057-15/FIN respectively, not only accepted the FME event but also granted extension of time by giving additional 62 days to the Petitioner for the completion of the project.

3.1.3 The Petitioner during the hearing and in review motion submitted that the NTDC and PPIB lack authority to comment or approve the cost associated with the Force Majeure Event. The power to assess and approve the FME related cost rests exclusively with NEPRA.

3.1.4 The Authority has considered the above mentioned submissions of the Petitioner and has concluded that the cost was incurred by the Petitioner after the acceptance of the FME by relevant agencies. The Authority is of the view that the Petitioner had made all efforts and approached all the relevant governmental agencies with a request for repair of road and bridge but could not get the required response. Accordingly the petitioner had to carry out the required work in order to avoid further delay in the completion of the project. In view thereof and considering the unusual circumstances, the Authority has decided to allow the FME related cost of Rs. 40.185 million (equivalent to US \$ 0.499 million), subject to verifiable documentary evidences at the time of COD.

3.2 Furniture and Fixture

3.2.1 The Petitioner has requested the Authority to allow the cost of Rs. 12.682 million (US \$ 0.157 million). The cost pertains to the furniture and fixture for plant control room, warehouse and offices, which was earlier not factored in EPC cost of the Petitioner's original tariff petition. The Petitioner has requested that the cost should be allowed being an indispensable cost for the operation of the plant.





- 3.3.3 The Authority considered the request made by the Petitioner and is of the view that the EPC contract is a turnkey contract and cost of furniture and fixture is part and parcel of the EPC cost. It is therefore the duty of the Petitioner to negotiate the EPC contract as a prudent investor. Furthermore, the Authority has refused to allow such cost to other IPPs in its earlier decisions. Hence, The Authority has decided not to allow the aforesaid furniture and fixture cost as a separate line item of EPC cost as claimed by the Petitioner.

4 Non-EPC Cost:

4.1 Start-up and Production Cost

- 4.1.1 **Gas:** The Petitioner requested the Authority to allow the actual gas used in the start up and the production of the UCH-II instead of restricting it up to RCOD i.e. January 8, 2014. The Petitioner submitted that the actual COD was achieved on April 4, 2014 instead of January 8, 2014 (RCOD) due to the FME. Resultantly, the plant commissioning tests were delayed and had to be carried out in March 2014 (subsequent to RCOD). Therefore, most of the gas was consumed between January 8, 2014 (RCOD) and April 4, 2014 (actual COD).

- 4.1.2 The Authority has considered the aforementioned claim of the Petitioner and is of the view that the gas consumption during the testing phase was erroneously linked with RCOD. The gas consumption during testing before synchronization is considered a legitimate cost. The Authority has therefore decided to allow actual gas consumption, subject to verification at the time of COD of the net payments made by NTDC on account of fuel charges for the units delivered before COD.

4.2 Sabotage and Terrorism Insurance (S & T Insurance)

- 4.2.1 The Petitioner in its review motion against the Authority's tariff modification decision has requested to allow additional S&T insurance cost of US \$ 560,449 (exceeding 1.35% of the EPC cost). The Authority in its tariff modification decision has allowed insurance cost up to 1.35% of the EPC cost subject to verifiable documentary evidence at the time of COD.

- 4.2.2 The Petitioner in its review motion submitted that S&T insurance was triggered due to geographical location of the project, which also experienced militant activities and rocket attacks. The Petitioner submitted that due to the remote and difficult location of the project many insurance/reinsurance markets are unwilling to insure, which makes it difficult to buy insurance at competitive prices resulting in higher premiums as compare to other locations in Pakistan.

- 4.2.3 The Authority considered the submission given by the Petitioner and has found that it was the sole responsibility of the Petitioner to negotiate for the insurance rate and keep the cost within the confines of allowed 1.35% of EPC cost. The Authority, being consistent with the decision made for other IPPs has decided to uphold its earlier decision in the instant matter.





4.3 Residential Colony

4.3.1 The Petitioner in its review motion requested the Authority to allow Rs. 174.403 million (equivalent to US \$ 2.1678 million) for establishment of a residential colony. In support of its claim the Petitioner has submitted that

- The project site is located in a remote area isolated and considerably away from any major town.
- Without providing reasonable living conditions it is extremely difficult to retain qualified and trained O & M staff.
- Security situations around the site and in Baluchistan province impact the cost of doing business in the area.
- The project had to pay a premium to hire the services of an experienced contractor required for the construction of the residential colony.
- The wholesale price index increased 38% from 2009 (year of last determination) to 2011 (year of contract execution).
- The Petitioner is requesting the Authority to kindly give due consideration to its location and security conditions associated with our project site that resulted in the increase of cost.

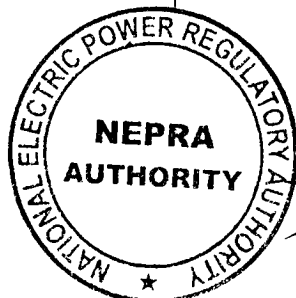
4.3.2 The Authority has considered the above mentioned claim of the Petitioner and is of the view that the Authority in its earlier review motion decision dated 26.06.2009 has already revised upwards the per sq.ft construction cost. The Petitioner was unable to justify that this revised cost was not sufficient at the time of the previous determination. In view thereof the Authority has decided not to accept the claim of the Petitioner.

5 ORDER

4.3.3 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, subject to adjustment of Capacity Purchase Price on account of net dependable capacity and net thermal efficiency as determined by test jointly carried out by the Central Power Purchasing Agency (CPPA) of the National Transmission and Dispatch Company (NTDC)/CPPA-G and the Petitioner, the following specified tariff for delivery of electricity to the CPPA of the NTDC/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	0.1285	0.1285	0.1285	US\$ /PKR & US CPI





O&M Local	0.0621	0.0621	0.0621	WPI
Insurance	0.0852	0.0852	0.0852	US\$/PKR
Debt Service	1.3223	0.1191	-	LIBOR/KIBOR
Return on Equity	0.4546	0.4546	0.4546	US\$/PKR
ROE during Construction	0.0932	0.0932	0.0932	US\$/PKR
Total Capacity Charge	2.1459	0.9427	0.8236	
Energy Charge on Operation on Gas Rs./kWh				
Fuel Cost Component	3.0900	3.0900	3.0900	Fuel Price
Variable O&M – Foreign	0.1173	0.1173	0.1173	US\$/PKR & US CPI
Local	0.0221	0.0221	0.0221	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. 6.1889/kWh.
- The applicable component wise tariff is indicated at **Annex-I**.
- Debt Servicing Schedule is attached as **Annex-II**.
- The Annex I&II 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.

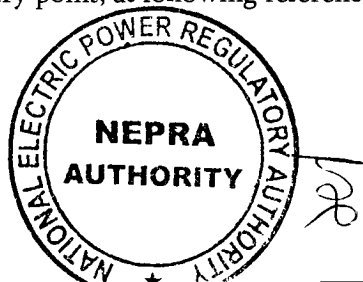
The following adjustments /indexations shall be applicable to reference tariff;

I.(i) **Adjustment in EPC Cost**

One time adjustment of EPC cost shall be made for foreign currency fluctuation on account of the portion paid in the relevant foreign currency at the time of COD. In this regard, the sponsor will be required to provide all the necessary relevant details along with verifiable documentary evidence. Based upon such information, the relevant currency of EPC cost components shall be established and applied to the corresponding EPC cost components. The relevant tariff components i.e. Insurance, ROE, ROEDC, Principal Repayment and Interest Charges shall be adjusted only for currency fluctuation against the reference parity values.

I.(ii) **Adjustment due to Variation in Net Capacity**

The reference tariff has been determined on the basis of minimum net capacity of 375.20 MW at delivery point, at following reference site conditions:





- | | | |
|---|----------------------|-----------|
| • | Ambient temperature | 27.3° C |
| • | Relative humidity | 48.5% |
| • | Atmospheric pressure | 1006 mbar |

All the relevant tariff components shall be adjusted at the time of COD based upon the Initial Dependable Capacity (IDC) to be carried out for determination of contracted capacity. Adjustments shall be made according to the following formula:

$$CC_{(Adj)} = CC_{(Ref)} \times 375.20 \text{ MW} / NC_{(IDC)}$$

No Adjustment shall be made if IDC is established at less than the net capacity of 375.20 MW at reference site conditions.

Note: Above formula shall be applicable to all the individual relevant components of Capacity Charges.

Where;

- | | | |
|--------------|---|---|
| $CC_{(Adj)}$ | = | Adjusted relevant Capacity Charge components of tariff |
| $CC_{(Ref)}$ | = | Reference relevant Capacity Charge components of tariff |
| $NC_{(IDC)}$ | = | Net Capacity at reference site conditions established at the time of IDC Test |

Note: Reference capacity charge components of Tariff i.e. Revised O&M Foreign, Revised O&M Local, Insurance, Debt Servicing, Return on Equity and ROEDC to be adjusted as per IDC test

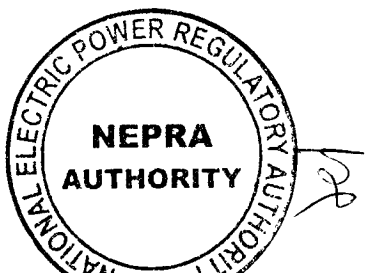
I.(iii) Adjustment due to variation in Net Efficiency

The reference tariff has been determined on the basis of minimum net efficiency of 49.360 %. However the fuel cost component shall not be adjusted if the net thermal efficiency is established less than efficiency of 49.360 %. Based upon the heat rate test of the complex to be carried out jointly by the CPPA and the Uch-II at the time of COD, the reference fuel cost component of tariff shall be adjusted in case the net efficiency is established at higher than 49.360 %. The adjustment shall be made according to the following formula;

$$FC_{(Adj)} = \text{Rs. } 3.0900 \text{ per kWh} / 6913 \times HR_{(T)}$$

Where;

- | | | |
|--------------|---|---|
| $FC_{(Adj)}$ | = | Adjusted fuel cost component at the time of heat rate test at COD |
| $HR_{(T)}$ | = | Net Efficiency in Btu per kWh established after Heat Rate |





Test at the time of COD

I.(iv) **Adjustment Based on Actual Interest During Construction & Financing Fees**

Debt Service, ROE and ROEDC shall be adjusted on account of actual variation in drawdown and Interest During Construction & Financing Fees with reference to the estimated figure of US\$ 40.09 million and US\$ 22.05 million respectively.

I.(v) **Adjustment due to Custom Duties & Taxes**

Debt Service, Return on Equity and ROE during construction shall be adjusted on account of actual variation in custom duties and withholding taxes with reference to the estimated figure of US \$ 18.600 million subject to production of verifiable documentary evidences at the time of COD.

I.(vi) **Adjustment for variation in Dollar/Rupee parity**

Relevant reference tariff components shall be adjusted at COD on account of variation in Dollar/Rupee parity.

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;

$$\text{Insurance}_{(Adj)} = \text{AIC} / P_{(Ref)} * P_{(Act)} / 80.45 * ER_{(Rev)}$$

Where;

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

P_(Ref) = Reference Premium US\$ 3.4801 million

P_(Act) = Actual Premium or 1.35% of the adjusted EPC whichever is lower

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





III. Adjustment in Return on Equity (ROE)

Uch-II also requested to allow quarterly adjustment on account of US\$/PKR exchange rate based on the revised TT & OD selling rate of US dollar notified by the National Bank of Pakistan (NBP). Uch-II request is inline with the decision of the Economic Coordination Committee (ECC) and is, therefore, being allowed subject to adjustment on account of exchange rate variation according to the following formula;

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

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 80.45 = 1 US\$.

IV. Adjustment on Return on Equity during Construction (ROEDC)

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

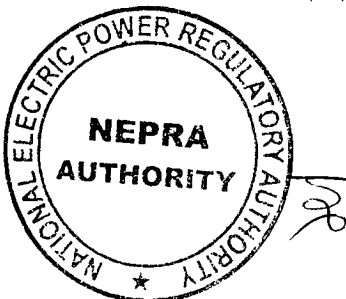
$$ROEDC_{(Rev)} = ROEDC_{(Ref)} * ER_{(REV)} / ER_{(Ref)}$$

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





$$ER_{(Ref)} = \text{The reference exchanges rate of PKR } 80.45 = 1 \text{ US\$}.$$

V. **Adjustment of Withholding Tax:**

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

$$WT_{(Rev)} = WT_{(Ref)} * ER_{(Rev)} / 80.45$$

Where;

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

$$WT_{(Ref)} = \text{Reference Withholding tax}$$

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

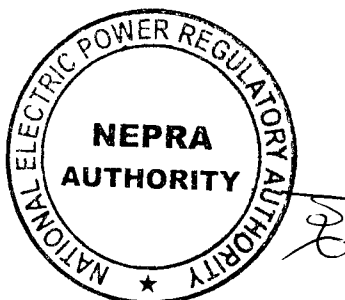
VI. **Pass-Through Items**

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:

$$\text{Withholding Tax Payable} = [(15\% * (E_{(Ref)} - E_{(Red)}) + ROEDC_{(Ref)}) * 7.5\% * ER_{(Rev)} / 80.45]$$

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.

VII. Indexations:

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

a) Indexation applicable to O&M

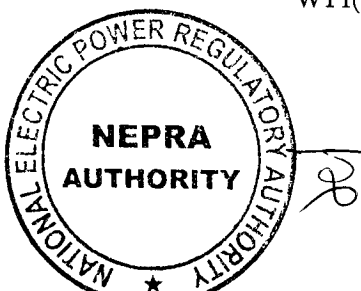
The Fixed O&M local component of Capacity Charge will be adjusted on account of Inflation (WPI) and Fixed O&M foreign component on account of variation in US CPI and dollar/Rupee exchange rate. Quarterly adjustment for local inflation, foreign inflation and exchange rate variation will be made on 1st 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

$$\begin{aligned} F O\&M_{(REV)} &= \text{Rs. } 0.1285 / \text{kW/ Hour} * US CPI_{(REV)} / 212.193 * ER_{(REV)} / 80.45 \\ F O\&M_{(LREV)} &= \text{Rs. } 0.0621 / \text{kW / Hour} * WPI_{(REV)} / 138.38 \end{aligned}$$

Where:

$$\begin{aligned} F O\&M_{(REV)} &= \text{The revised foreign Fixed O\&M Foreign Component of tariff} \\ F O\&M_{(LREV)} &= \text{The revised local Fixed O\&M Local Component of tariff} \\ WPI_{(REV)} &= \text{The revised Wholesale Price Index (manufactures)} \end{aligned}$$





$WPI_{(REF)}$	=	The reference WPI (manufactures) of 138.38 of February 2009
$US\ CPI_{(REV)}$	=	The revised US CPI (All Urban Consumers)
$US\ CPI_{(REF)}$	=	Reference US CPI of 212.193 for February 2009
$ER_{(REV)}$	=	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:

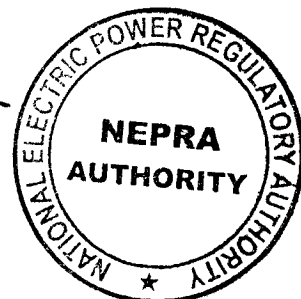
$$\begin{aligned} V\ O\&M\ (FREV) &= Rs. 0.1173/kWh * US\ CPI_{(REV)}/212.193 * ER_{(REV)}/80.45 \\ V\ O\&M\ (LREV) &= Rs. 0.0221/kWh * WPI\ (REV) /138.38 \end{aligned}$$

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
$WPI_{(REV)}$	=	The revised Wholesale Price Index (manufactures)
$WPI_{(REF)}$	=	Reference WPI (manufactures) of 138.38 of February 2009
$US\ CPI_{(REV)}$	=	The revised US CPI (All Urban Consumers)
$US\ CPI_{(REF)}$	=	Reference US CPI of 212.193 for February 2009
$ER_{(REV)}$	=	The Revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan

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

iii) Adjustment for KIBOR 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 KIBOR and LIBOR according to the following formula;

$$\begin{aligned}\Delta I (L) &= P_{(LREV)} * (KIBOR_{(REV)} - 12.81\%) / 4 \\ \Delta II (\text{Foreign Debt-US\$}) &= P_{(FREV)} * (LIBOR_{(REV)} - 4\%) / 4 \\ \Delta III (\text{Foreign Debt-Euro}) &= P_{(FREV)} * (EURIBOR_{(REV)} - 4\%) / 4\end{aligned}$$

Where:

ΔI (local debt) = the variation in interest charges applicable corresponding to variation in quarterly KIBOR. ΔI can be positive or negative depending upon whether $KIBOR_{(Rev)} > \text{or} < 12.81\%$. The interest payment obligation will be enhanced or reduced to the extent of ΔI for each quarter under adjustment applicable on quarterly basis.

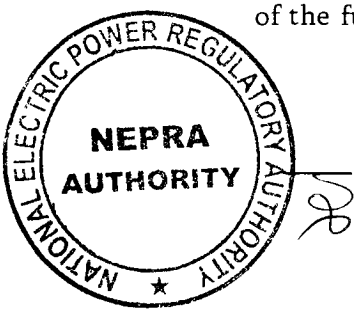
ΔII (US\$ debt) = the variation in interest charges applicable corresponding to variation in quarterly LIBOR. ΔII can be positive or negative depending upon whether $LIBOR_{(Rev)} > \text{or} < 4\%$. The interest payment obligation will be enhanced or reduced to the extent of ΔII for each quarter under adjustment applicable on quarterly basis.

ΔIII (Euro debt) = the variation in interest charges applicable corresponding to variation in quarterly EURIBOR. ΔIII can be positive or negative depending upon whether $EURIBOR_{(Rev)} > \text{or} < 4\%$. The interest payment obligation will be enhanced or reduced to the extent of ΔIII 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 I shall commence on the date on which the 18 installment is due after availing the grace period.

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 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:

$P_{(REV)}$ = 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 I shall commence on the date on which the 1st installment is due after availing the grace period.

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 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:

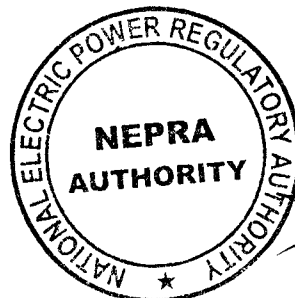
$FC_{(Rev)}$ = The revised fuel cost component of Variable Charge on low BTU gas.

$FP_{(Rev)}$ = 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 as indicated by the petitioner of US\$ 5.0102 / MMBTU adjusted for HHV-LHV factor of 1.109 and exchange rate of Rs. 80.45/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, KIBOR, 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,



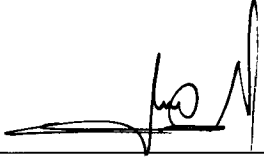


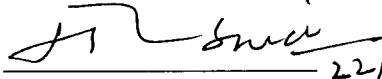
For onetime adjustment of relevant tariff components at COD according to the mechanism laid down in this order, Uch-II shall submit the relevant documents to NEPRA within 30 days of COD for adjustment.

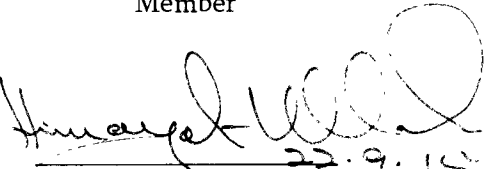
VIII. Terms and Conditions of Tariff:

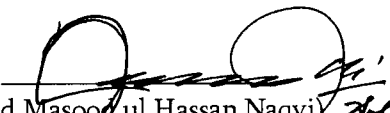
- i) Capacity Charge (Rs./kW/hour) applicable to dependable capacity at the delivery point.
- ii) The tariff is applicable for a period of 25 years commencing from the date of the Commercial Operation.
- iii) Use of Low BTU Gas is allowed as single fuel for operation of the plant.
- iv) All new equipment 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) NTDC/CPPA 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.

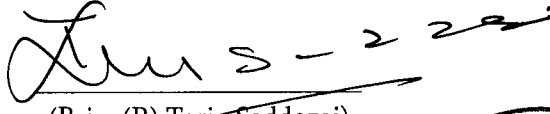
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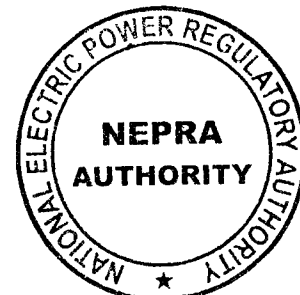

(Khawaja Muhammad Naeem)
Member

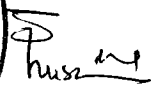

(Maj. (R) Haroon Rashid)
Member


(Himayat Ullah Khan)
Member


(Syed Masood ul Hassan Naqvi)
Member


(Brig. (R) Tariq Saddozai)
Chairman
30/9/15

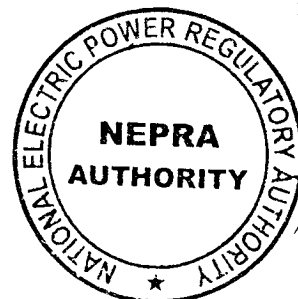



01.10.15

UCH II Power (Private) Limited
Reference Tariff Schedule

Year	Energy Charge (PKR/kWh)				Capacity Charge (PKR/kW/Hr)									CPP	Tariff
	Fuel	Variable	Variable	Total	Fixed O&M-	Fixed O&M-	Insurance	Return on	Return on	Withholding	Loan	Interest	Total	60% Plant	PKR per
		O&M	O&M		Local	Foreign		Equity	Equity during	Tax @7.5%	Repayment	Charges		Factor	PKR
		Local	Foreign		Local	Foreign		Equity	Constru- ction	Tax @7.5%	Repayment	Charges		PKR/kWh	kWh
1	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	0.5765	0.7459	2.1869	3.6449	6.8742
2	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	0.6261	0.6962	2.1869	3.6449	6.8742
3	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	0.6803	0.6420	2.1869	3.6449	6.8742
4	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	0.7396	0.5827	2.1869	3.6449	6.8742
5	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	0.8044	0.5179	2.1869	3.6449	6.8742
6	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	0.8753	0.4470	2.1869	3.6449	6.8742
7	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	0.9530	0.3693	2.1869	3.6449	6.8742
8	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	1.0381	0.2842	2.1869	3.6449	6.8742
9	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	1.1314	0.1909	2.1869	3.6449	6.8742
10	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	1.2338	0.0885	2.1869	3.6449	6.8742
11	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	0.1009	0.0182	0.9836	1.6394	4.8687
12	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	0.1056	0.0135	0.9836	1.6394	4.8687
13	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	0.1105	0.0085	0.9836	1.6394	4.8687
14	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	0.1157	0.0033	0.9836	1.6394	4.8687
15	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	-	-	0.8646	1.4410	4.6703
16	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	-	-	0.8646	1.4410	4.6703
17	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	-	-	0.8646	1.4410	4.6703
18	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	-	-	0.8646	1.4410	4.6703
19	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	-	-	0.8646	1.4410	4.6703
20	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	-	-	0.8646	1.4410	4.6703
21	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	-	-	0.8646	1.4410	4.6703
22	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	-	-	0.8646	1.4410	4.6703
23	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	-	-	0.8646	1.4410	4.6703
24	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	-	-	0.8646	1.4410	4.6703
25	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	-	-	0.8646	1.4410	4.6703
Levelized Tariff (1-25 Years)				3.2293	0.0621	0.1285	0.0852	0.4546	0.0932	0.0411	0.5632	0.3480	1.7757	2.9596	6.1889

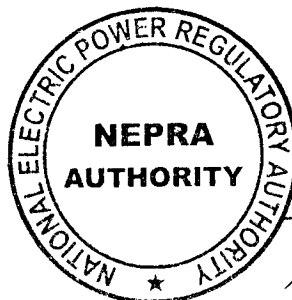
Net Capacity 375.20 MW
Reference Exchange Rate PKR 80.45 = 1 US\$
Reference US CPI 212.193 for February 2009 as notified by the US Labour Bureau of Labor Statistics
Reference WPI (Manufacturer) 138.38 for February 2009 as notified by the Federal Bureau of Statistics
Efficiency 49.360% (Minimum)
Levelized Tariff Levelized tariff in US Cents 7.6929 /kWh



**UCH II Power (Private) Limited
Debt Servicing Schedule**

Annex-II(b)

Period	Foreign Debt-USD Commercial Facility					Foreign Debt-DFI USD					Annual Principal Repayment Rs./kW/ hr.	Annual Interest Rs./kW/ hr.	Annual Debt Servicing Rs./kW/ hr.
	Principal Million \$	Repayment Million \$	Mark-Up Million \$	Balance Million \$	Debt Service Million \$	Principal Million \$	Repayment Million \$	Mark-Up Million \$	Balance Million \$	Debt Service Million \$			
1	84.90	1.29	2.02	83.61	3.31	87.22	1.44	1.74	85.78	3.19	0.2771	0.3593	0.6364
	83.61	1.33	1.99	82.28	3.31	85.78	1.47	1.72	84.30	3.19			
	82.28	1.36	1.95	80.93	3.31	84.30	1.50	1.69	82.80	3.19			
	80.93	1.39	1.92	79.54	3.31	82.80	1.53	1.66	81.27	3.19			
	84.90	5.37	7.88	79.54	13.25	87.22	5.95	6.80	81.27	12.75			
2	79.54	1.42	1.89	78.11	3.31	81.27	1.56	1.63	79.71	3.19	0.3020	0.3344	0.6364
	78.11	1.46	1.86	76.66	3.31	79.71	1.59	1.59	78.11	3.19			
	76.66	1.49	1.82	75.17	3.31	78.11	1.63	1.56	76.49	3.19			
	75.17	1.53	1.79	73.64	3.31	76.49	1.66	1.53	74.83	3.19			
	79.54	5.90	7.35	73.64	13.25	81.27	6.44	6.31	74.83	12.75			
3	73.64	1.56	1.75	72.08	3.31	74.83	1.69	1.50	73.14	3.19	0.3292	0.3072	0.6364
	72.08	1.60	1.71	70.48	3.31	73.14	1.73	1.46	71.41	3.19			
	70.48	1.64	1.67	68.84	3.31	71.41	1.76	1.43	69.65	3.19			
	68.84	1.68	1.63	67.16	3.31	69.65	1.80	1.39	67.85	3.19			
	73.64	6.48	6.77	67.16	13.25	74.83	6.97	5.78	67.85	12.75			
4	67.16	1.72	1.60	65.45	3.31	67.85	1.83	1.36	66.02	3.19	0.3589	0.2775	0.6364
	65.45	1.76	1.55	63.69	3.31	66.02	1.87	1.32	64.15	3.19			
	63.69	1.80	1.51	61.89	3.31	64.15	1.91	1.28	62.25	3.19			
	61.89	1.84	1.47	60.05	3.31	62.25	1.94	1.24	60.31	3.19			
	67.16	7.11	6.13	60.05	13.25	67.85	7.55	5.21	60.31	12.75			
5	60.05	1.89	1.43	58.17	3.31	60.31	1.98	1.21	58.32	3.19	0.3912	0.2451	0.6364
	58.17	1.93	1.38	56.24	3.31	58.32	2.02	1.17	56.30	3.19			
	56.24	1.98	1.34	54.26	3.31	56.30	2.06	1.13	54.24	3.19			
	54.26	2.02	1.29	52.24	3.31	54.24	2.10	1.08	52.14	3.19			
	60.05	7.81	5.43	52.24	13.25	60.31	8.17	4.58	52.14	12.75			
6	52.24	2.07	1.24	50.17	3.31	52.14	2.15	1.04	49.99	3.19	0.4266	0.2098	0.6364
	50.17	2.12	1.19	48.05	3.31	49.99	2.19	1.00	47.80	3.19			
	48.05	2.17	1.14	45.88	3.31	47.80	2.23	0.96	45.57	3.19			
	45.88	2.22	1.09	43.65	3.31	45.57	2.28	0.91	43.29	3.19			
	52.24	8.58	4.66	43.65	13.25	52.14	8.84	3.91	43.29	12.75			
7	43.65	2.27	1.04	41.38	3.31	43.29	2.32	0.87	40.97	3.19	0.4651	0.1713	0.6364
	41.38	2.33	0.98	39.05	3.31	40.97	2.37	0.82	38.60	3.19			
	39.05	2.38	0.93	36.67	3.31	38.60	2.42	0.77	36.18	3.19			
	36.67	2.44	0.87	34.23	3.31	36.18	2.46	0.72	33.72	3.19			
	43.65	9.43	3.82	34.23	13.25	43.29	9.57	3.18	33.72	12.75			
8	34.23	2.50	0.81	31.73	3.31	33.72	2.51	0.67	31.20	3.19	0.5071	0.1293	0.6364
	31.73	2.56	0.75	29.17	3.31	31.20	2.56	0.62	28.64	3.19			
	29.17	2.62	0.69	26.55	3.31	28.64	2.62	0.57	26.02	3.19			
	26.55	2.68	0.63	23.87	3.31	26.02	2.67	0.52	23.36	3.19			
	34.23	10.36	2.89	23.87	13.25	33.72	10.36	2.39	23.36	12.75			
9	23.87	2.74	0.57	21.13	3.31	23.36	2.72	0.47	20.64	3.19	0.5530	0.0834	0.6364
	21.13	2.81	0.50	18.32	3.31	20.64	2.78	0.41	17.86	3.19			
	18.32	2.88	0.44	15.44	3.31	17.86	2.83	0.36	15.03	3.19			
	15.44	2.94	0.37	12.50	3.31	15.03	2.89	0.30	12.14	3.19			
	23.87	11.38	1.87	12.50	13.25	23.36	11.22	1.54	12.14	12.75			
10	12.50	3.01	0.30	9.48	3.31	12.14	2.95	0.24	9.20	3.19	0.6030	0.0334	0.6364
	9.48	3.09	0.23	6.39	3.31	9.20	3.00	0.18	6.19	3.19			
	6.39	3.16	0.15	3.23	3.31	6.19	3.06	0.12	3.13	3.19			
	3.23	3.23	0.08	(0.00)	3.31	3.13	3.13	0.06	(0.00)	3.19			
	12.50	12.50	0.75	-	13.25	12.14	12.14	0.61	(0.00)	12.75			



**UCH II Power (Private) Limited
Debt Servicing Schedule**

Annex-III(b)

Period	Foreign Debt-DFI Euro					Local Debt					Annual Principal Repayment Rs./kW/ hr.	Annual Interest Rs./kW/ hr.	Annual Debt Servicing Rs./kW/ hr.
	Principal Million €	Repayment Million €	Mark-Up Million €	Balance Million €	Debt Service Million €	Principal Million Rs.	Repayment Million Rs.	Mark-up Million Rs.	Balance Million Rs.	Debt Service Million Rs.			
1	92.62	1.53	1.85	91.09	3.39	1,964.73	20.91	77.66	1,943.82	98.56			
	91.09	1.56	1.82	89.52	3.39	1,943.82	21.73	76.83	1,922.08	98.56			
	89.52	1.60	1.79	87.93	3.39	1,922.08	22.59	75.97	1,899.49	98.56			
	87.93	1.63	1.76	86.30	3.39	1,899.49	23.49	75.08	1,876.00	98.56			
	92.62	6.32	7.22	86.30	13.54	1,964.73	88.72	305.53	1,876.00	394.26	0.2356	0.3313	0.5669
2	86.30	1.66	1.73	84.64	3.39	1,876.00	24.42	74.15	1,851.59	98.56			
	84.64	1.69	1.69	82.95	3.39	1,851.59	25.38	73.18	1,826.21	98.56			
	82.95	1.73	1.66	81.22	3.39	1,826.21	26.38	72.18	1,799.82	98.56			
	81.22	1.76	1.62	79.46	3.39	1,799.82	27.43	71.14	1,772.40	98.56			
	86.30	6.84	6.70	79.46	13.54	1,876.00	103.61	290.65	1,772.40	394.26	0.2573	0.3096	0.5669
3	79.46	1.80	1.59	77.66	3.39	1,772.40	28.51	70.05	1,743.89	98.56			
	77.66	1.83	1.55	75.83	3.39	1,743.89	29.64	68.93	1,714.25	98.56			
	75.83	1.87	1.52	73.96	3.39	1,714.25	30.81	67.76	1,683.44	98.56			
	73.96	1.91	1.48	72.05	3.39	1,683.44	32.03	66.54	1,651.42	98.56			
	79.46	7.40	6.14	72.05	13.54	1,772.40	120.98	273.27	1,651.42	394.26	0.2812	0.2857	0.5669
4	72.05	1.94	1.44	70.11	3.39	1,651.42	33.29	65.27	1,618.12	98.56			
	70.11	1.98	1.40	68.13	3.39	1,618.12	34.61	63.96	1,583.52	98.56			
	68.13	2.02	1.36	66.10	3.39	1,583.52	35.98	62.59	1,547.54	98.56			
	66.10	2.06	1.32	64.04	3.39	1,547.54	37.40	61.17	1,510.14	98.56			
	72.05	8.02	5.53	64.04	13.54	1,651.42	141.27	252.98	1,510.14	394.26	0.3075	0.2594	0.5669
5	64.04	2.11	1.28	61.93	3.39	1,510.14	38.88	59.69	1,471.27	98.56			
	61.93	2.15	1.24	59.79	3.39	1,471.27	40.41	58.15	1,430.85	98.56			
	59.79	2.19	1.20	57.60	3.39	1,430.85	42.01	56.55	1,388.84	98.56			
	57.60	2.23	1.15	55.36	3.39	1,388.84	43.67	54.89	1,345.17	98.56			
	64.04	8.68	4.87	55.36	13.54	1,510.14	164.97	229.29	1,345.17	394.26	0.3365	0.2304	0.5669
6	55.36	2.28	1.11	53.08	3.39	1,345.17	45.40	53.17	1,299.78	98.56			
	53.08	2.32	1.06	50.76	3.39	1,299.78	47.19	51.37	1,252.59	98.56			
	50.76	2.37	1.02	48.39	3.39	1,252.59	49.06	49.51	1,203.53	98.56			
	48.39	2.42	0.97	45.97	3.39	1,203.53	50.99	47.57	1,152.54	98.56			
	55.36	9.39	4.15	45.97	13.54	1,345.17	192.64	201.62	1,152.54	394.26	0.3685	0.1984	0.5669
7	45.97	2.47	0.92	43.50	3.39	1,152.54	53.01	45.55	1,099.53	98.56			
	43.50	2.52	0.87	40.99	3.39	1,099.53	55.11	43.46	1,044.42	98.56			
	40.99	2.57	0.82	38.42	3.39	1,044.42	57.28	41.28	987.14	98.56			
	38.42	2.62	0.77	35.81	3.39	987.14	59.55	39.02	927.59	98.56			
	45.97	10.17	3.38	35.81	13.54	1,152.54	224.95	169.31	927.59	394.26	0.4039	0.1630	0.5669
8	35.81	2.67	0.72	33.14	3.39	927.59	61.90	36.66	865.69	98.56			
	33.14	2.72	0.66	30.41	3.39	865.69	64.35	34.22	801.34	98.56			
	30.41	2.78	0.61	27.64	3.39	801.34	66.89	31.67	734.45	98.56			
	27.64	2.83	0.55	24.80	3.39	734.45	69.54	29.03	664.91	98.56			
	35.81	11.00	2.54	24.80	13.54	927.59	262.68	131.58	664.91	394.26	0.4431	0.1239	0.5669
9	24.80	2.89	0.50	21.91	3.39	664.91	72.28	26.28	592.63	98.56			
	21.91	2.95	0.44	18.97	3.39	592.63	75.14	23.42	517.49	98.56			
	18.97	3.01	0.38	15.96	3.39	517.49	78.11	20.45	439.38	98.56			
	15.96	3.07	0.32	12.89	3.39	439.38	81.20	17.37	358.18	98.56			
	24.80	11.91	1.63	12.89	13.54	664.91	306.73	87.52	358.18	394.26	0.4864	0.0805	0.5669
10	12.89	3.13	0.26	9.76	3.39	358.18	84.41	14.16	273.77	98.56			
	9.76	3.19	0.20	6.57	3.39	273.77	87.74	10.82	186.03	98.56			
	6.57	3.25	0.13	3.32	3.39	186.03	91.21	7.35	94.82	98.56			
	3.32	3.32	0.07	(0.00)	3.39	94.82	94.82	3.75	-	98.56			
10	12.89	12.89	0.65	(0.00)	13.54	358.18	358.18	36.08	-	394.26	0.5344	0.0325	0.5669



UCH II Power (Private) Limited
Debt Servicing Schedule

Annex-II(b)

Period	Foreign Debt-ECA Facility USD					Annual Principal Repayment Rs./kW/ hr.	Annual Interest Rs./kW/ hr.	Annual Debt Servicing Rs./kW/ hr.	Total for 5 Loan Facilities		
	Principal Million \$	Repayment Million \$	Mark-Up Million \$	Balance Million \$	Debt Service Million \$				Annual Principal Repayment Rs./kW/hr.	Annual Interest Rs./kW/hr.	Annual Debt Servicing Rs./kW/hr.
1	50.00	0.64	0.58	49.36	1.22	0.0638	0.0552	0.1191	0.5765	0.7459	1.3223
	49.36	0.65	0.57	48.71	1.22						
	48.71	0.66	0.56	48.05	1.22						
	48.05	0.66	0.55	47.39	1.22						
	50.00	2.61	2.26	47.39	4.86						
2	47.39	0.67	0.55	46.72	1.22	0.0668	0.0522	0.1191	0.6261	0.6962	1.3223
	46.72	0.68	0.54	46.04	1.22						
	46.04	0.69	0.53	45.36	1.22						
	45.36	0.69	0.52	44.66	1.22						
	47.39	2.73	2.13	44.66	4.86						
3	44.66	0.70	0.51	43.96	1.22	0.0700	0.0491	0.1191	0.6803	0.6420	1.3223
	43.96	0.71	0.51	43.25	1.22						
	43.25	0.72	0.50	42.53	1.22						
	42.53	0.73	0.49	41.80	1.22						
	44.66	2.86	2.01	41.80	4.86						
4	41.80	0.74	0.48	41.07	1.22	0.0732	0.0458	0.1191	0.7396	0.5827	1.3223
	41.07	0.74	0.47	40.32	1.22						
	40.32	0.75	0.46	39.57	1.22						
	39.57	0.76	0.46	38.81	1.22						
	41.80	2.99	1.87	38.81	4.86						
5	38.81	0.77	0.45	38.04	1.22	0.0767	0.0424	0.1191	0.8044	0.5179	1.3223
	38.04	0.78	0.44	37.26	1.22						
	37.26	0.79	0.43	36.48	1.22						
	36.48	0.80	0.42	35.68	1.22						
	38.81	3.13	1.73	35.68	4.86						
6	35.68	0.81	0.41	34.87	1.22	0.0803	0.0388	0.1191	0.8753	0.4470	1.3223
	34.87	0.81	0.40	34.06	1.22						
	34.06	0.82	0.39	33.23	1.22						
	33.23	0.83	0.38	32.40	1.22						
	35.68	3.28	1.59	32.40	4.86						
7	32.40	0.84	0.37	31.56	1.22	0.0840	0.0350	0.1191	0.9530	0.3693	1.3223
	31.56	0.85	0.36	30.70	1.22						
	30.70	0.86	0.35	29.84	1.22						
	29.84	0.87	0.34	28.97	1.22						
	32.40	3.43	1.43	28.97	4.86						
8	28.97	0.88	0.33	28.09	1.22	0.0879	0.0311	0.1191	1.0381	0.2842	1.3223
	28.09	0.89	0.32	27.19	1.22						
	27.19	0.90	0.31	26.29	1.22						
	26.29	0.91	0.30	25.38	1.22						
	28.97	3.59	1.27	25.38	4.86						
9	25.38	0.92	0.29	24.45	1.22	0.0921	0.0270	0.1191	1.1314	0.1909	1.3223
	24.45	0.93	0.28	23.52	1.22						
	23.52	0.95	0.27	22.57	1.22						
	22.57	0.96	0.26	21.61	1.22						
	25.38	3.76	1.10	21.61	4.86						
10	21.61	0.97	0.25	20.65	1.22	0.0964	0.0227	0.1191	1.2338	0.0885	1.3223
	20.65	0.98	0.24	19.67	1.22						
	19.67	0.99	0.23	18.68	1.22						
	18.68	1.00	0.21	17.68	1.22						
	21.61	3.94	0.93	17.68	4.86						
11	17.68	1.01	0.20	16.67	1.22	0.1009	0.0182	0.1191	0.1009	0.0182	0.1191
	16.67	1.02	0.19	15.64	1.22						
	15.64	1.04	0.18	14.60	1.22						
	14.60	1.05	0.17	13.56	1.22						
	17.68	4.12	0.74	13.56	4.86						
12	13.56	1.06	0.16	12.50	1.22	0.1056	0.0135	0.1191	0.1056	0.0135	0.1191
	12.50	1.07	0.14	11.42	1.22						
	11.42	1.08	0.13	10.34	1.22						
	10.34	1.10	0.12	9.24	1.22						
	13.56	4.31	0.55	9.24	4.86						
13	9.24	1.11	0.11	8.13	1.22	0.1105	0.0085	0.1191	0.1105	0.0085	0.1191
	8.13	1.12	0.09	7.01	1.22						
	7.01	1.14	0.08	5.88	1.22						
	5.88	1.15	0.07	4.73	1.22						
	9.24	4.52	0.35	4.73	4.86						
14	4.73	1.16	0.05	3.57	1.22	0.1157	0.0033	0.1191	0.1157	0.0033	0.1191
	3.57	1.17	0.04	2.39	1.22						
	2.39	1.19	0.03	1.20	1.22						
	1.20	1.20	0.01	(0.00)	1.22						
	4.73	4.73	0.14	(0.00)	4.86						

