



Registrar

National Electric Power Regulatory Authority

Islamic Republic of Pakistan

NEPRA Tower, Ataturk Avenue(East), G-5/1, Islamabad
Ph: +92-51-9206500, Fax: +92-51-2600026
Web: www.nepra.org.pk, E-mail: registrar@nepra.org.pk

No. NEPRA/TRF-266/Uch-II-2014/6206-6208
April 22, 2015

Subject: Decision of the Authority in the matter of Tariff Modification Petition filed by Uch-II Power (Pvt.) Ltd. [Case # NEPRA/TRF-266/Uch-II-2014]


Dear Sir,

Please find enclosed herewith the subject Decision of the Authority along with Annexures (35 pages) in Case No. NEPRA/TRF-266/Uch-II-2014.

2. The Decision is being intimated to the Federal Government for the purpose of notification in the official gazette pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.

3. The Order along with revised tariff table and debt servicing schedule attached with the Decision needs to be notified in the official Gazette.

Enclosure: As above


22.04.15
(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.



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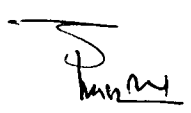
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DECISION OF THE AUTHORITY
IN THE MATTER OF TARIFF MODIFICATION PETITION
FILED BY UCH-II POWER (PVT) LTD.

1. **Background**

Uch-II Power (Pvt.) Limited (herein after referred as 'Uch-II' or as 'the petitioner' or as 'the company') filed Tariff modification petition under Section 31 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 read with Rule 3 of the NEPRA Tariff Standard and Procedure Rules, 1998 for the revision and modification of the Tariff against the tariff determinations of the Authority dated April 24, 2009, June 26, 2009 and October 16, 2009.

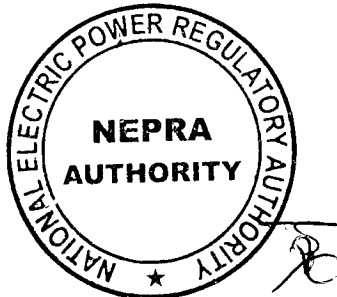
2. **Relief Sought By Uch-II:**

Following are the relief sought by Uch-II in the Tariff Modification petition

S. No	Relief Sought By Uch-II
1	To allow the additional cost incurred in association of extension incurred in RCOD by 62 days as a part of tariff true up petition.
2	To allow additional EPC cost.
3	To allow the startup and production cost as per actual subject to the caps under EPC contract.
4	To allow the additional cost incurred in the head of mobile equipment.
5	To allow sabotage and terrorism insurance cost procured due to additional PPA requirement.
6	To allow additional costs not anticipated at the time of original tariff petition.
7	To allow workers profit participation fund (WPPF) cost as a part of project cost.
8	To allow additional cost incurred under the head of residential colony

3. **Proceedings:**

- 3.1 In accordance with the provision of Tariff (Standards & Procedure) Rules – 1998, the Authority considered the tariff petition and admitted it for further consideration. The





Authority also approved the following issues for the hearing of the petition, which were communicated to the petitioner and advertised in newspaper:

- i) Whether the subject modification petition filed by the Uch-II is maintainable or not? If yes then;
- ii) Whether delay in COD as claimed by Uch-II and approved by NTDC is justified?
- iii) Whether cost over runs against the determined costs as claimed by Uch-II in the modification petition on account of EPC cost and Non EPC cost are justified?
- iv) Whether the claim of additional costs on account of startup and production cost, mobile equipment, residential colony, sabotage & terrorism insurance etc. are justified?
- v) Whether or not to allow the additional cost not anticipated by the petitioner at the time of original tariff petition/ determination?

3.2 Notice of admission and hearing were published in national newspaper on September 25, 2014, wherein salient features of the petition were published.

3.3 In response to the advertisement no intervention request or comments were received from the stakeholders.

3.4 On September 30, 2014, notices to Uch-II and other stakeholders have been sent to participate in the hearing. Hearing of the case was held on October 15, 2014.

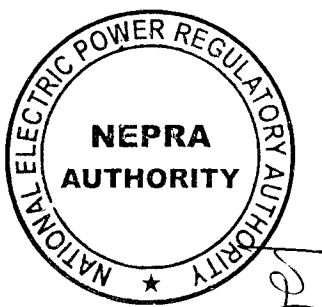
4. Hearing

4.1 In terms of Rule 9 of the Tariff Rules – 1998 the Authority has decided to hold the hearing on October 15, 2014 at NEPRA main office. Accordingly individual letters were communicated to the stakeholders.

4.2 Having considered the submission of the Petitioner, arguments of the stakeholders and mainly power purchaser the issue-wise discussion and decision is reproduced as under:

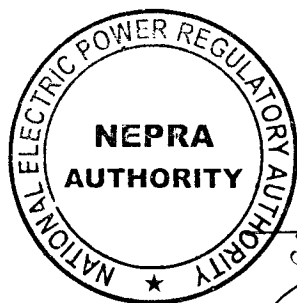
5. Whether the subject modification petition filed by the Uch-II is maintainable or not?

5.1 This modification petition has been filed by the Petitioner after achieving COD. So far all the IPPs have opted to file COD adjustment at the time of COD. But UCH-II has filed modification petition based on actual numbers. The petitioner submitted the following arguments / references in relation to the maintainability of their case:



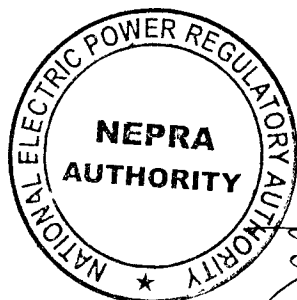
"The Tariff Modification Petition has been filed under Rule 3(1) of the National Electric Power Regulatory Authority (Tariff Standards and Procedure) Rules, 1998 (the "NEPRA Rules") read with Section 31 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 which empowers any licensee, consumer or person interested in the tariff to file a petition before the Authority. Rule 2(1)(g) of the NEPRA Rules defines the term "Petition" to include a petition made to the Authority for the determination, modification or revision of tariff. Uch-II has incurred costs due to circumstances and events not within its control. The costs sought by Uch-II from the Authority are prudently incurred costs in terms of the NEPRA Rules. The relief sought by Uch-II can only be granted through revision/modification of the original tariff. The Authority has the power to revise/modify tariffs under the NEPRA laws. The Authority has granted the relief of revision/modification of tariff to other IPPs in the past. We submit that Uch's Tariff Determination Petition is maintainable and the Authority has the jurisdiction to entertain the same."

- 5.2 Having considered the arguments and rationale submitted by the petitioner in the light of the relevant provision of legal frame work that is NEPRA Act, Tariff Rules, the Authority noted that, as such, there is no restriction on any petitioner to file tariff modification petition. However, the questions for consideration here are that, whether the petition has been filed on the basis of valid legal justifications and whether the claims and requests are justified and costs claimed have been prudently incurred or not? The Authority has examined the prudence of the claims and requests made by the petitioner in the tariff modification petition. The Authority is of view that there are certain issues, claims and costs i.e. Independent Engineers cost, workers profit participation fund, variation Order in EPC contract, start up and production cost (water consumption charges)etc. which have valid justifications and required to be considered hence the petition was maintainable.
6. Whether delay in COD as claimed by Uch-II is justified?
- 6.1 In para 12.1 of the determination dated June 26, 2009, the construction period for Uch-II was determined as 30 months. However, Uch -II has claimed the construction period up to January 08, 2014 (62 days extension), on the basis of extension allowed by the power purchaser NTDC on account of Force Majeure Event (FME) as per the provisions of Power Purchase Agreement ("PPA"). Uch-II, requested the Authority to grant an extension of 62 days in the construction period. The relevant event-wise summary/extract as provided by the petitioner in its petition is summarized as follows:





- On May 19, 2011 Islamabad High Court (IHC) issued a restraining order to OGDCL from awarding EPC Contract for development of Sellers Facilities .
 - IHC order was ceased on August 26, 2011.
 - Due to IHC order, OGDCL claimed Force Majeure (FM) of 100 days under the Gas Supply Agreement (GSA).
 - Uch-II mitigated and reduced the FM impact to 62 days against OGDCL claim of 100 days .
 - NTDC accepted extension in RCOD for 62 days against this FM event (i.e. RCOD of January 8, 2014 from November 7, 2013). As a matter of reference Uch-II also submitted a copy of NTDC's letter No. GM(WPPO)/NTDC/UCH-II/8887-89 dated 05/09/2013 for declaration of extension of RCOD by 62 days on accounts of Force Majeure Event as per PPA along with notification letter No. C.S/NTDCL/2341-44 dated 03/09/2013. Uch-II also submitted a copy of NTDC's letter No. GM(WPPO)/NTDC/UCH-II/11907-11910 dated 11/11/2013 for notification of extension in RCOD in above-mentioned letter. Copy of PPIB's letter No. 7(708) PPIB-1057/13/FIN dated April 02, 2013 conveying the minutes of the meeting held on 25th March 2013.
 - Under the Power Purchase Agreement (PPA) in case of an accepted FM event, Uch-II is entitled to an extension in RCOD as this extension has been granted by the power purchaser.
- 6.2 NTDC has also supported petitioner's above-mentioned claim vide letter No. GM(CPPA)/DGMF/448 dated 14th January 2015 and during hearing of the case.
- 6.3 The Authority considered the submissions of the petitioner and noted that the Petitioner executed a PPA with NTDC on 19th January, 2011 and it achieved its Financial Close on 7th May 2011. The Required Commercial Operations Date ("RCOD") was thirty months after Financial Close as per PPA and Tariff Determination and accordingly the RCOD was 8th November, 2013. In addition to signing PPA, the petitioner executed Gas Supply Agreement with OGDCL for development of gas facilities and supply of gas for testing and commissioning of the Petitioner generation facility on RCOD however gas supplier declared Force Majeure Event due to restraining order passed by Islamabad High Court and accordingly claimed Force Majeure of 100 days under Gas Supply Agreement. As per documents and information available on record, this event had material effect on the performance of the petitioner under PPA as its RCOD was essentially dependent on the development of gas facilities and supply of gas. In addition to that, as communicated by





NTDC and PPIB, serious floods and rains in 2012 washed away the roads leading to petitioner's generation site and affected the performance of its contractors. Therefore considering these two events i.e. claim of Force Majeure by OGDCL under GSA and heavy rains and floods, a force majeure of 62 days under the category of Other Force Majeure Events were agreed and accepted by NTDC and PPIB and accordingly RCOD was extended till 8th January, 2014. The Authority considered this extension in RCOD in the light of relevant provisions of determinations, power purchase agreements (PPA), written comments of power purchaser and all the documentary evidences submitted by the petitioner and concluded that the extension in construction period as claimed by the petitioner and recommended by NTDC in the light of PPA, and other documentary evidences is justified and hence decided to allow 62 days extension in the construction period.

7. Whether cost over runs against the determined costs as claimed by Uch-II in the modification petition on account of EPC cost and Non EPC cost are justified?

7.1 EPC cost overruns:

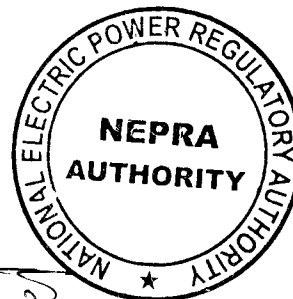
Uch-II requested the Authority to allow increase in EPC cost by US\$ 1.199 million. Following is a summary of UCH-II claim:

Uch-II executed four (4) EPC contracts with the total value of US\$368.423 million. The petitioner has requested a reduction in determined EPC cost by of US\$1.830 which is summarized as under:

(Figures in 000s)

Parties Name	Nature of Contract	Nepa Approval		EPC Contract		Difference	
		USD Cost	EUR Cost	USD Cost	EUR Cost	USD Cost	EUR Cost
Hyundai - Korea	Equipment I Supply	131,515	77,448	131,469	59,201	(46)	(18,247)
Hyundai - Thailand	Technical Services				16,664	-	16,664
Descon FZE	Equipment II Supply	57,501	18,775	57,851	18,775	350	-
Descon and DIPL	Construction	51,500		51,500		-	-
Total EPC Price		240,516	96,223	240,820	94,640	304	(1,583)
Total EPC Price in Equivalent USD		370,253		368,423		(1,830)	

However, Uch-II on other hand has also requested the Authority to allow an additional EPC related cost US\$ 3.029 million from executed contracts value which is summarized as follow:





Description	Payment currency			(Figures in 000s) Eqv. US\$
	PKR	US\$	Euro	
Change in Tax	-	54,900	22,497	85,233
Variation Order due to NTDC (220KV Switchyard Additional Bay)	-	536,370	1,298,310	2,286,881
Force Majeure Event Related Cost	40,185,770	-	-	499,512
Furniture & fixtures	12,682,047	-	-	157,639
Total	52,867,817	591,270	1,320,807	3,029,265

7.2 According to Uch-II, the details of above-mentioned account heads are as follows:

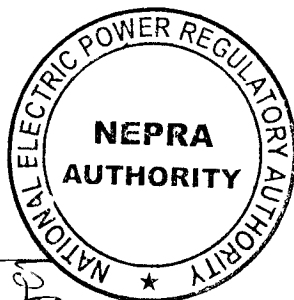
Change in Withholding Tax (US\$ 0.085 million):

7.3 The grounds submitted by the petitioner on account of increase in EPC cost due to change in Income Tax are as follows:

- On March 15, 2011 a surcharge was introduced through Section 4A in the Income Tax Ordinance, 2001
- Amendment resulted in a surcharge @15% of the income tax including withholding tax on every tax payer from period March 15, 2011 to June 30, 2011
- Surcharge was also levied on 6% withholding.

7.4 The petitioner's prayers on account of this account head are reproduced as follows:

"On March 15th, 2011, President of Pakistan promulgated the Income Tax (Amendment) Ordinance 2011, through which a new Section 4A "Surcharge" was inserted in the Income Tax Ordinance, 2001 (the Ordinance). According to this new section, a surcharge was payable by every taxpayer @ 15% of the income tax payable under the Ordinance including the withholding tax, for the period commencing from March 15th, 2011 to June 30th, 2011. Accordingly, this surcharge was deducted in addition to normal 6% withholding tax while making payments to Descon Engineering Limited (Descon) and Hyundai Engineering (Thailand) Co. Ltd (HETC). Consequent





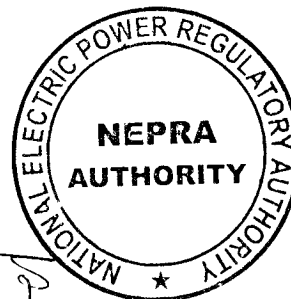
to the above additional deduction of surcharge, both Descon and HETC served "Notice of Change in Tax", dated June 16, 2011 and June 21, 2011, respectively, followed by a calculation of additional Tax Cost and a statement by their tax consultants. The additional Tax Cost in the calculation represented the amount of the withholding tax deducted under the said section 4A of the Ordinance, amounting to US\$54,900 and Euro22,497, relating to Descon and HETC, respectively, which owing to the fact of their income being subject to tax under Presumptive Tax Regime, had become their final tax liability in respect of such payments.

Accordingly and in view of the reasons set forth above, the Company requests the Authority to approve additional cost of US\$ equivalent of 85,233 on account of EPC change in tax as part of the tariff."

7.5 The Authority considered the following documents submitted by the petitioner to substantiate its claim:

- A copy of the above-mentioned SRO clarifies that this tax was applicable from March 31, 2011 to June 30, 2011,
- Copies of EPC contract that such taxes are responsibility of petitioner,
- An opinion of Tax consultants "Grant Thornton - Anjum Asim Shahid Chartered Accountants",
- Documentary evidences of tax payments and calculation thereof.

7.6 As per mechanism, only those taxes are pass through that are imposed directly on the petitioner and the taxes imposed on the contractors or third parties are not pass through and will be part of costs of the contractors in their contracts. However, in the instant case the Authority considered the documentary evidence provided by the Petitioner. The Authority noted that no payment on this account has been made by the Petitioner. In absence of any documentary evidence the instant amount cannot be considered at this stage. However, the Authority may consider this amount at the time of COD if the petitioner would be able to submit the payment details and documentary evidence establishing that this cost was part of the EPC cost and was required to be paid by the Petitioner.





Variation Order due to NTDC -(220KV Switchyard Additional Bay)

7.7 Uch-II has also requested the Authority to allow US\$ 2.287 on account EPC cost due to subsequent construction of switch yard additional Bay on direction of NTDC after the last determination of the Authority due to following reason:

- Post review of 220KV switchyard, NTDC instructed to add an additional bay
- The original three (3) bay layout would have resulted in STG and GT (two units off line instead of one) to be out of service in case of any issue with step-up transformers

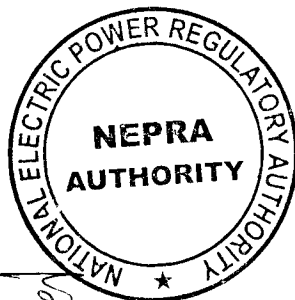
7.8 The petitioner's submissions and justifications on account of this cost are reproduced as under:

" during the review and approval process of project switchyard design, NTDC instructed to add one more bay to enhance reliability. Company expressed concern over this instruction as its incorporation so late in the design review process would lead to additional cost and time impact on project timeline. However, NTDC maintained its position that this change is necessary to ensure the required reliability.

EPC Contractor submitted proposal of Euro 2,210,320 and claimed two months extension on account of delay in ordering due to change in scope. The Company after several negotiations was able to reduce equipment, material, and installation cost to Euro 1,298,310 and settled extension claim against payment of expediting measures fee of US\$ 536,370.

This variation was carried out on the instructions of NTDC therefore the Company requests Authority to approve final additional bay cost aggregating US\$2,286,881 as part of the tariff.

7.9 The Authority considered the submissions of the petitioner in the light the documentary evidences and submissions of the power purchaser and found this cost as justified because this was incurred on instruction of NTDC. All costs are duly verifiable from documentary evidences. Therefore the Authority has decided to allow this cost as a part of EPC cost subject to adjustment at the time of COD adjustment on account of exchange rate variations, through verifiable documentary evidences.





Cost over runs in EPC due to Force Majeure Event Related Cost:

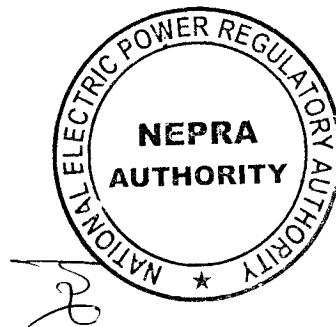
- 7.10 Apart from Force majeure due to Gas Supply Agreement issue (62 days extension claim), Uch-II has also claimed PKR 40.185 million (US\$ 0.499 million) on account of EPC cost due to heavy rains in the locality. Break-up of their claim is as follows:

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

- 7.11 To substantiate this claim Uch-II has submitted following arguments:

Project Site is located in District Nasirabad that experienced record rain fall (1 in 100 year event) and floods on September 2012. EPC Contractor declared Force Majeure and Contractor's staff was evacuated from the Site in response to the declaration of emergency in the district of Nasirabad. The FM event not only resulted in suspension of site activities but also disrupted the transportation route to the Project Site. Key project equipment including Gas Turbine and Generators were held up in Shikarpur City whereas other shipments were put on hold at Karachi Port and Port Qasim due to unavailability of a transportation route to the Project Site.

Transportation to Project site resumed nearly after a month but only for normal light weight traffic as a result of temporary repair works by National Highway Authority. However, transportation route remained precarious and unsuitable for critical heavy shipments due to extensive damage to numerous road sections and bridges. Uch-II and EPC Contractor as part of mitigation measures evaluated different routes and in parallel pursued government authorities for immediate repair works on Jacobabad Bypass and damaged bridges to ensure safe and secure transportation of project shipment. Considering Government had no immediate plans of further repair works, Uch-II along with EPC Contractor undertook repair works on Jacobabad Bypass and also fabricated and placed temporary structure on





damaged bridge. This resulted in delivery of Gas Turbines and other critical shipments to Project Site and ended 81 days long FM event. The PPIB was kept abreast of all developments in this regard and requests were also directly made to National Highway Authority for undertaking necessary repair works on the routes.

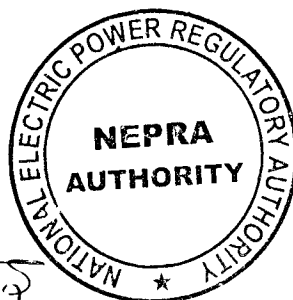
The Company and EPC Contractor initiatives beyond their contractual obligations not only saved the project from prolonged delay but also resumed traffic over damaged bridge on Sukkur-Quetta national highway. The Contractor claimed an 81 days Force Majeure claim from September 12, 2012 to November 25, 2012 and also demanded all costs of mitigation during the FME. As part of its final settlement with the EPC Contractor the Company successfully negotiated down their FM claim of 81 days to 47 days and agreed to favourably consider sharing the mitigation cost claims presented by the EPC Contractor as summarized below:

The Company firmly believes that the above costs would not have been incurred by EPC Contractor if GOP would have performed its obligation of provision of pliable land routes to the Project Site. Therefore, the Company requests authority to approve above additional cost of Rs40.18 million (US\$ equivalent of 499,512) incurred during the event.

- 7.12 Although force majeure on account of this rainfall has been claimed by EPC contractor and Uch-II but no comments/indication was given by PPIB and NTDC to allow the same to the petitioner or otherwise. The Authority considers that the relevant agencies which can determine the validity of this claimed cost are PPIB and NTDC. Therefore the Authority has decided that this cost shall be considered once the same is recommended by NTDC and PPIB, subject to provision of all the verifiable documentary evidences related to this cost and its exchange rate at the time of COD.

Furniture and Fixtures:

- 7.13 The petitioner submitted that the EPC contract scope did not include any furniture and furnishing for the plant building including control room, warehouse and admin buildings. As a result, the Company forecasts to incur a cost of Rs.12,682,047 which was not separately requested by the Company in its initial tariff petition. The Authority is therefore requested to allow cost of Rs12.68 million (US\$ equivalent of 157,639) at actual.





- 7.14 The Authority considered the submission of the petitioner in the light of the evidences and precedent cases. The Authority concluded that the EPC contract is a turnkey contract and cost of furniture and fixture is part and parcel of EPC cost. It is therefore the duty of the petitioner to negotiate the EPC contract as a prudent investor is supposed to negotiate. Further so far the Authority has not allowed furniture cost as a separate component of EPC cost to any other IPP. In view thereof the Authority has decided not to allow furniture cost as EPC cost as claimed by the petitioner.

Summary of EPC cost:

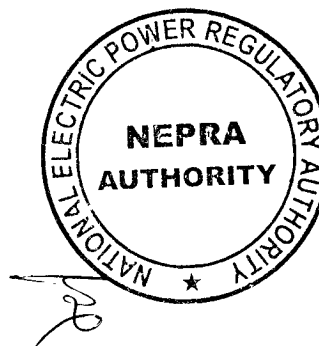
- 7.15 For the computation of revised reference tariff following numbers of EPC have been used:

Particulars	Claimed by UCH-II in Eqv. US\$	Considered for the calculation of revised reference tariff- in Eqv. US
Change in Tax	85,233	-
Variation Order due to NTDC (220KV Switchyard Additional Bay)	2,286,881	2,286,881
Force Majeure Event Related Cost	499,512	-
Furniture & fixtures	157,639	-
Total Increase	3,029,265	2,286,881
Less: Reduction claimed in EPC	(1,830,000)	(1,830,000)
Net EPC increase	1,199,265	456,881
EPC allowed in the last determination	370,253,000	370,253,000
Revised EPC cost	371,452,265	370,709,881

8. Whether the claim of additional costs on account of startup and production cost, mobile equipment, residential colony, sabotage & terrorism insurance etc. are justified?

Non-EPC Costs

- 8.1 Start-up and production cost:





Gas:

- 8.1.1 The Authority in its decision dated April 24, 2009 has allowed Gas fuel as per actual consumption. Uch-II has requested the Authority to allow the cost of 1,957,701 MMBTUs gas consumption till (actual) COD,. The actual Gas bills till COD will be presented subsequently for approval of the Authority.
- 8.1.2 As this cost is to be adjusted at the time of COD, and UCH-II has not submitted the gas bills for verification. Therefore the Authority has decided to allow this cost, subject to verification, to be restricted to the gas consumption up to revised R-COD that is January 08, 2014 with COD adjustments.

HSD and electricity consumed:

- 8.1.3 The Petitioner has requested the Authority to allow the actual consumption of HSD till COD i.e. 3.57 million liters, against the Authority's approval of 3 million liters and import of electricity of 4.172 GWh against the allowed cap of 1.300 GWh. Further, Uch-II has also requested the Authority to apply actual rate of HSD purchases (Rs 99.565 per liter excluding GST) vs. assumed rate of Rs 57.14 per liter prevailing at the time of initial petition on total HSD consumption.
- 8.1.4 The Authority in the determination dated June 26, 2009 has considered the request for increase in HSD and electricity import and decided as follows:
- " ... The Authority however considers that the quantities of HSD and electricity capped 3 million liters and 1.3 GWh respectively as per the paragraph of 4.7 of EPC term sheet is reasonable. Accordingly the Authority has decided to allow quantities of HSD and electricity as per the actual at the time of COD subject to maximum of capped quantities of 3 million liters (2610 tonnes) and 1.3 GWh respectively....."*
- 8.1.5 The Authority considers that based on the request of the Uch-II the electricity capped 3 million liters and 1.3 GWh respectively was allowed in accordance with provision of paragraph 4.7 of the EPC term sheet. The Authority considers that in accordance with the provision of NEPRA Act and Rules made there-under only prudently incurred cost needs to be allowed. The Authority considers that any cost which is overrun to the allowed costs





due to mismanagement of the Petitioner or any other fault or error, cannot be considered as prudently incurred cost. All actual costs until substantiated with the documentary evidence cannot be considered prudently incurred cost. The Petitioner was unable to justify that why the additional cost has been incurred when upper limit was already allowed by the Authority. Furthermore, tariff is the package and any over or under costs needs to be managed under the allowed tariff regime. In view thereof the Authority has decided not to change its earlier determination on the account of startup and production costs and decline the request of the petitioner on this account.

Water consumption charges:

- 8.1.6 The petitioner has submitted that the project intakes water from part feeder canal. The actual water intake till COD is Rs. 207.87 million imperial gallons that translates to Rs. 3,315,542 payable to Irrigation Department of Baluchistan as per the terms of the Assistance Agreement between Government of Baluchistan and Uch-II at contractual rate of Rs15.95/1000 Imperial gallons.
- 8.1.7 The subject cost was not allowed by the Authority in the previous determination since this was not requested by the Petitioner at that point of time. However, in the instant petition the Petitioner requested the subject cost and requested the Authority to consider and allow the same. Having considered the submission of the Petitioner, the Authority has decided to consider the subject cost based upon the verifiable documentary evidences such as payment details at the time of COD

8.2 Mobile Equipment

- 8.2.1 Due to synergies of UCH-I and on the basis of CPPA's comments etc, the Authority in the determination dated April 24, 2009 in para 6.2.4 determined total amount of US\$250,000 on account of mobile equipment against their claim of US\$ 745,000. Now Uch-II has requested to allow US\$422,683 on the basis of actual expenditure incurred, resulting in overruns of US\$ 172,683. Following is the break-up of mobile equipment as requested by Uch-II:

Description	Cost Equiv US\$
Site vehicles	286,125
Forklift	81,534
Store stacker *	55,024
Total Cost	422,683





- 8.2.2 The petitioner has also claimed that this cost overruns due to increase in vehicle prices besides additional work relating to bullet proofing of vehicles due to unexpected increase in security threat levels over past few years.
- 8.2.3 The Authority considered the submissions of the petitioner in the light of previous determinations and concluded that the Authority has allowed the cost of mobile equipment in the project cost, considering the synergies of Uch-I and to optimize the use of available resources which is evident from the actual costs on this account. The increase of US\$ 0.172 million requested by the petitioner is not a material variation from the originally determined cost. The Authority noted that instead of the existing resources such as using existing fork lifter and Store Stacker of Uch-I, the Petitioner procured the same in contravention to the Authority's directions at its own discretion, without approval of the Authority. The Authority has therefore decided to decline the request of the petitioner on account of mobile equipment.

8.3 Additional Insurance During Construction (Sabotage and Terrorism-S&T)

- 8.3.1 In the determination dated October 2009, Uch-II was allowed US\$ 7.428 million on account of insurance during construction, subject to adjustment at the time of COD on the basis of actual expenditure up to a maximum limit of 1.35% of EPC (on the basis of last determined EPC, it works out to be US\$ 4.998 million, US\$ 5.014 million on the basis of revised claim and 5.006 million on the basis of assumed revised EPC), as allowed to all the IPPs.
- 8.3.2 Whereas, Uch-II has claimed total insurance during construction as US\$ 5.531 million on the basis of actual expenditure. The main reason for this over runs is the additional insurance cover required under PPA, after the last determination for Sabotage and Terrorism (S&T). Uch-II submitted that:

"Subsequent to Uch-II's tariff determination, PPA was signed with an additional requirement to procure Sabotage and Terrorism cover of sum insured of US\$100 million which was not part of standard PPA / PPA signed with other IPPs"

- 8.3.3 Uch-II further submitted that due to security situation in areas surrounding power station, there was very limited appetite in international insurance market (insurers who meet PPA rating requirement). Furthermore, very few insurers were willing to cover this



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risk and therefore most of the insurers are same for both projects hence increasing overall risk to be insured at one location.

- 8.3.4 The Authority considered the request of the petitioner in the light of PPA requirements, NTDC comments and other documentary evidences. The Authority considers that Uch-I is already operating in the same area therefore through better negotiations the insurance coverage was manageable under the upper limit of the EPC cost. In view thereof the Authority has decided to allow the insurance cost up to 1.35% of the EPC cost. The same shall be subject to adjustment based on the verifiable documentary evidence at the time of COD.

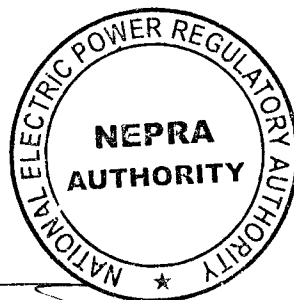
8.4 Residential Colony:

- 8.4.1 The Authority in the Para 9.2 of the determination dated June 26, 2009, determined the cost of residential colony as US\$5.08 million on the following basis:

" 9.2 The Authority accordingly reassessed the cost of residential colony as 5.08 million on the basis of construction cost of Rs. 3,500 per sq. ft for villas, mosque and mess while 3,000 per sq. ft for apartments, barracks, club house and mess. This cost also includes cost of 2 km long road, foot path on sides of road, walkways for pedestrians, soft landscaping, typical boundary wall as in UCH-I and interfacing & furnishing cost. Considering this cost as maximum ceiling shall be subject to adjustment at the time of COD substantiating by documentary evidences."

- 8.4.2 The petitioner in the modification request has requested to allow additional Rs174.403 on the basis of actual expenditure and has submitted the following:

" The Authority assessed the cost of residential colony as US\$5.08 million (Rs408.67 million) subject to adjustment at the time of COD substantiated by the documentary evidence. However, *the company could not engage Descon for construction of colony due to approved cost limitations*. It subsequently entered into agreement with IKAN Engineering services for a contract price of Rs444.21 million. The final colony scope had to be optimized including changes in covered area and road length to compensate for increased construction costs over the contract period."



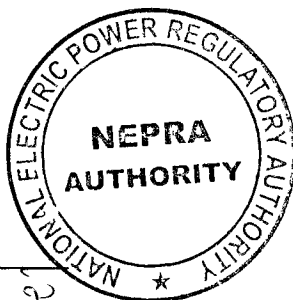
The Company also engaged ICON Architecture and Design as a consultant to provide services for the residential colony design, engineering and construction supervision. The overall cost of this consultancy services and associated costs is Rs15.50 million.

Despite best efforts by company, the overall colony construction cost including landscaping, furniture, and furnishing remained above approved limits as detailed below:

Cost Details	Rs.
Original Contract Value (IKAN)	444,217,037
Original Variations	38,838,136
Furniture	3,228,636
Furnishing	28,305,336
Landscaping	33,000,000
Design, engineering & construction supervision (ICON)	15,500,000
Total	583,089,145

The Company, therefore, requests the Authority to approve additional costs of Rs174.403 million over and above the already allowed limit at actual.

- 8.4.3 The Authority considered the submissions of the petitioner in the light of previous determinations. The Authority noted that based on the submissions of the Petitioner in the previous determination the cost of residential colony in the project cost was allowed considering the Bill of Quantities (BoQs) submitted by the petitioner. Similarly construction cost of Rs. 3,500 per sq.ft. for villas, mosque and mess and 3,000 per sq.ft. for apartments, barracks, club house and mess were also allowed. This cost also includes cost of 2 km long road, foot path on sides of road, walkways for pedestrians, soft landscaping, typical boundary wall as in Uch-I and interfacing & furnishing cost. The Petitioner during the proceedings was unable to justify the claim on the basis provided in the determination were not sufficient for its requirement. Similarly the Petitioner was unable to point out that this cost was not sufficient while





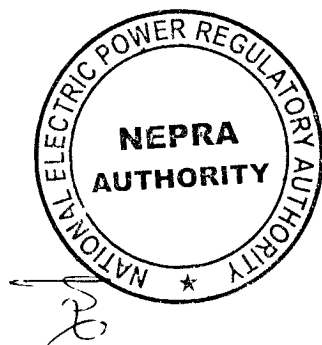
allowing at the time of the previous determination. In view thereof the Authority finds no justification to review its earlier determination in the instant matter.

9. Whether or not to allow the additional cost not anticipated by the petitioner at the time of original tariff petition/ determination?
- 9.1 Uch-II has claimed the following costs which were not part of the initial tariff petition and hence not considered in the determinations, however, these costs have actually been incurred subsequent to the determination:
- 9.2 PPA Independent Engineer
- 9.2.1 Uch-II has claimed US\$ 0.217 million (Euro 0.161 million) on account of this cost and in order to substantiate their claim Uch-II has submitted that:

"Pursuant to Section 2.6 of the Power Purchase Agreement, the Company is required to appoint and hire a firm of engineering consultants with the approval of the Power Purchaser for the purpose of observing the construction of the Complex and the Commissioning Tests and certifying to the Power Purchaser and the Company the results of the Commissioning Tests and the other matters specified herein.

In this regard, the Company hired Lahmeyer International GmbH as an Independent Engineer for purpose of observing and certifying the construction of the Complex and the Commissioning Tests. The overall consultancy agreement cost is expected at EUR 161,000 (US\$217,076 @ US\$ 1.3483/EUR) but can vary due to actual number of site trips and durations during the Commissioning Tests, as such the Authority is requested to allow EUR 161,000 (US\$217,076 @ US\$ 1.3483/EUR) to be actualized as part of tariff true up."

- 9.2.2 Having considered the submissions of the petitioner in the light of PPA requirements, NTDC comments and other documentary evidences the Authority considers that the request of petitioner is justified since it was a genuine request under the PPA. Further this cost has also been allowed to all comparable projects. Therefore, the Authority decided to allow the cost of PPA independent Engineer subject to the adjustment at the time of COD on the basis of verifiable documentary evidences.





9.3 **Technical Services & Consultancy:**

9.3.1 In addition to above, Uch-II has also requested the Authority to allow US\$ 0.049 million on account of Technical services & consultancy and has submitted that:

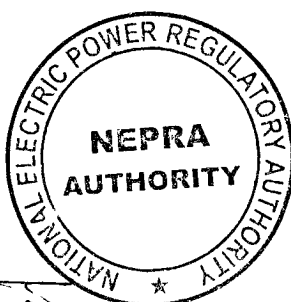
" The Company has been required to engage additional technical consultancy services in relation to the project including: fuel gas lab analysis and expert review of gas composition with respect to the contractual requirements; gas field facilities development review to assess on ground development and timeline for gas availability; HSD fuel analysis to ascertain the ash, sulphur and other contents of HSD as per OEM specified limits; and EHS monitoring services during development phase.

Cost Details	US\$
Fuel Gas Expert Review and Analysis	11,732
Offshore Fuel Gas Lab Analysis	10,457
Gas Field Development Review	10,000
HSD Fuel Analysis	4,201
EHS additional monitoring services	12,869
Total Cost	49,259

The Authority is therefore requested to approve above costs of US\$49,259 at actual."

9.3.2 The request of the petitioner has been considered in the light of previous determinations, and other documentary evidences submitted by the petitioner. The Authority noted that the request of petitioner has no material impact on tariff. Further, this head already been considered and allowed in the previous determinations under project development cost on the basis of submission of petition therefore cannot be allowed separately. In view thereof the instant request of the Petitioner is declined.

9.4 Contribution to Workers Profit Participation Fund (WPPF) FY2012 and FY2013 (Pre-COD period)





9.4.1 Uch-II has claimed that Rs. 10.518 (US\$ 0.131 million) on account of Worker's profit participation fund paid and has submitted that:

" Following receipt of a letter from Workers Welfare Fund (Ministry of Overseas Pakistanis and Human Resource Development), the Company established "Uch-II Power (Private) Limited - Workers' Profit Participation Fund" since it met the criteria specified in the scope of the scheme. Accordingly, the Company deposited an amount of Rs10,517,949 into Workers Welfare Fund, under the Companies Profits (Workers' Participation) Act, 1968. The said amount was worked out at 5% of Profit before tax, as reflected in the audited financial statements of the Company for the FY2012 i.e. (5% of Rs210,358,980).

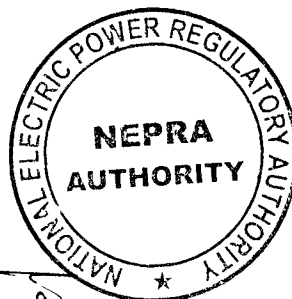
On October 1, 2013, Company initially invoiced this amount to the Power Purchaser under the PPA Pass Through provisions, however, the Power Purchaser on January 23, 2014 returned the Company's invoice stating that this amount should be claimed as part of Project Cost from NEPRA at the time of tariff true-up at COD.

We, therefore, request to the Authority to allow the above cost as the part of project cost.

9.4.2 The request of the petitioner has been considered in the light of NTDC comments and other documentary evidences submitted by the petitioner. The Authority considers that worker participation fund is legitimate cost which needs to be passed on. The Authority noted that the same cost was not envisaged at the time of previous determination. In view thereof, the Authority has decided to allow the cost of workers profit participation fund subject to the verifiable documentary evidence to be submitted by the Petitioner.

10. ORDER

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) and the Petitioner in the presence of NEPRA representative, the following specified tariff for delivery of electricity to the CPPA of the NTDC 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	0.1173	0.1173	0.1173	US\$ /PKR & US CPI
O&M Local	0.0221	0. 0221	0. 0221	WPI
Insurance	0.0852	0.0852	0.0852	US\$ /PKR
Debt Service	1.3210	0.1191	-	LIBOR/KIBOR
Return on Equity	0.4541	0.4541	0.4541	US\$/PKR
ROE during Construction	0.0931	0.0931	0.0931	US\$ /PKR
Total Capacity Charge	2.0928	0.8688	0.7497	
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. 6.1864/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.



- v) 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

Onetime 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 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

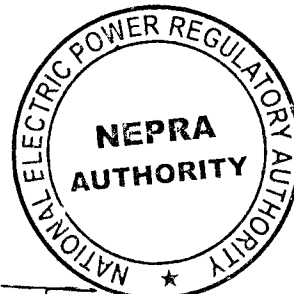
All the relevant tariff components shall be adjusted at the time of COD based upon the Initial Dependable Capacity (IDC) to be carried out for determination of contracted capacity. Adjustments shall be made according to the following formula:

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

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;

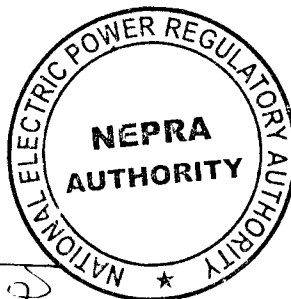
$$FC_{(Adj)} = \text{Rs. } 3.0900 \text{ per kWh} / 6913 \times HR_{(T)}$$

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;

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

Where;

- AIC = Adjusted Insurance Component (Rs. kW/hr) as per IDC Test
- $P_{(\text{Ref})}$ = Reference Premium US\$ 3.4801 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 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\$.

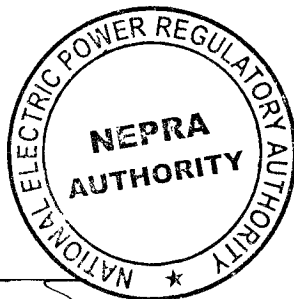
IV. Adjustment on Return on Equity during Construction (ROEDC)

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;

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

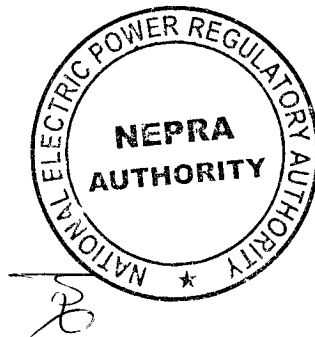
$$WT_{(Ref)} = \text{Reference Withholding tax}$$

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

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 operation i.e. Electricity Generation of power producer, the exact amount should be reimbursed by CPPA on production of 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) 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:

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

Where:

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

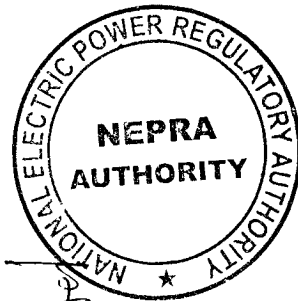
In case the Uch-II does not declare a dividend in a particular year or only declares a partial dividend, then the difference in the withholding tax amount (between what is paid in that year and the total entitlement as per the Net Return on Equity) would be carried forward and accumulated so that the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

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

Where:

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

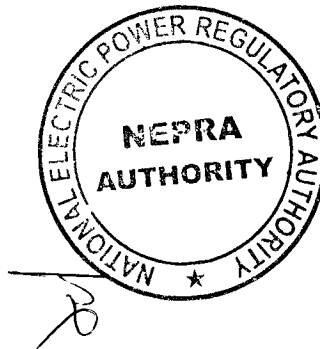
Note: The reference numbers indicated above shall be replaced by the revised numbers after incorporating the required adjustments at COD.

ii) Variable O&M

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

$$\begin{aligned} V O\&M_{(FREV)} &= \text{Rs. } 0.1173 / \text{kWh} * \text{US CPI}_{(REV)} / 212.193 * ER_{(REV)} / 80.45 \\ V O\&M_{(LREV)} &= \text{Rs. } 0.0221 / \text{kWh} * WPI_{(REV)} / 138.38 \end{aligned}$$

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

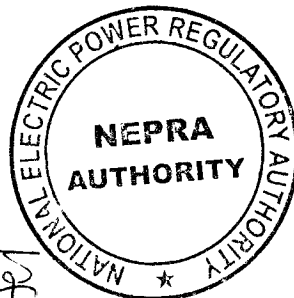
The interest part of fixed charge component will remain unchanged throughout the term except for the adjustment due to variations in interest rate as a result of variation in quarterly KIBOR and LIBOR according to the following formula;

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

Where:

$\Delta I(\text{local debt})$ = the variation in interest charges applicable corresponding to variation in quarterly KIBOR. A I can be positive or negative depending upon whether $KIBOR_{(REV)} >$ 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.

$\Delta II(\text{US\$ debt})$ = the variation in interest charges applicable



corresponding to variation in quarterly LIBOR. ΔII can be positive or negative depending upon whether LIBOR (Rev) > 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.

$\Delta III(\text{Euro debt})$ = the variation in interest charges applicable corresponding to variation in quarterly EURIBOR. ΔIII can be positive or negative depending upon whether EURIBOR (Rev) > 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 1st installment is due after availing the grace period.

iv) Fuel Price Variation

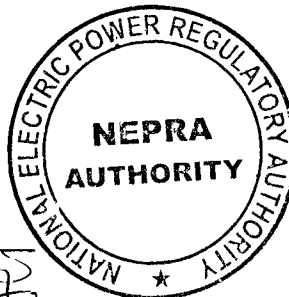
The Variable Charge Part of the tariff relating to fuel cost shall be adjusted on account of the fuel price variations as agreed between OGDCL and the petitioner and approved by the competent Authority. In this regard, the fuel cost component of tariff shall be revised according to the following formula:

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

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\$.

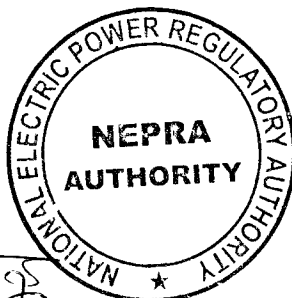
FC_(Adj) = Adjusted fuel cost component subsequent to heat rate test at COD

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:

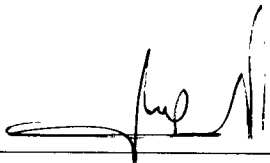
- i) Capacity Charge (Rs./kW/hour) applicable to dependable capacity at the delivery point.
- ii) The tariff is applicable for a period of 25 years commencing from the date of the Commercial Operation.
- iii) Use of Low BTU Gas is allowed as single fuel for operation of the plant.
- iv) All new equipment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

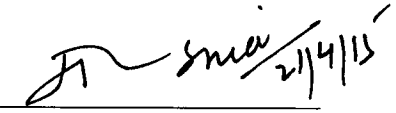


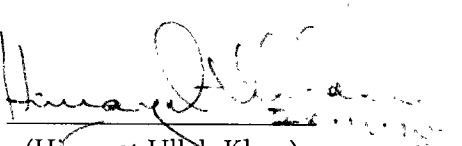



- xi) If there is any change in any assumption that may lead to change in the tariff shall be referred to NEPRA for approval.
- xii) No corporate income tax and no minimum turnover tax have been assumed.
11. The order along with revised tariff table and debt servicing schedule as attached thereto are recommended for notification by the Federal Government in the official gazette in accordance with Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997

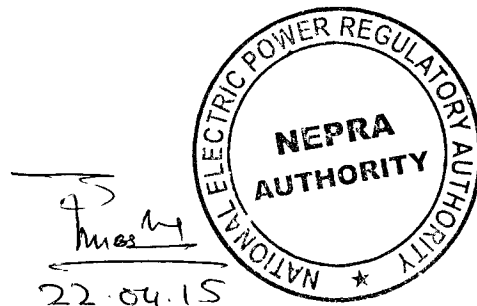
AUTHORITY


(Khawaja Muhammad Naeem)
Member


(Maj. (R) Haroon Rashid)
Member


(Himayat Ullah Khan)
Member


(Brig. (R) Tariq Saddozai)
Chairman



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	Fixed	Insurance	Return	Return on	Withholding	Loan	Interest	Total	60% Plant	PKR per
		O&M	O&M		O&M- Local	O&M- Foreign		on Equity	Equity during	Tax @7.5%	Repayment	Charges		Factor	kWh
		Local	Foreign						Construction					PKR/kWh	
1	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	0.5758	0.7452	2.1850	3.6417	6.8710
2	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	0.6254	0.6956	2.1850	3.6417	6.8710
3	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	0.6796	0.6414	2.1850	3.6417	6.8710
4	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	0.7388	0.5822	2.1850	3.6417	6.8710
5	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	0.8036	0.5174	2.1850	3.6417	6.8710
6	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	0.8744	0.4466	2.1850	3.6417	6.8710
7	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	0.9520	0.3690	2.1850	3.6417	6.8710
8	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	1.0370	0.2840	2.1850	3.6417	6.8710
9	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	1.1302	0.1908	2.1850	3.6417	6.8710
10	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	1.2325	0.0885	2.1850	3.6417	6.8710
11	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	0.1009	0.0182	0.9830	1.6384	4.8677
12	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	0.1056	0.0135	0.9830	1.6384	4.8677
13	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	0.1105	0.0085	0.9830	1.6384	4.8677
14	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	0.1157	0.0033	0.9830	1.6384	4.8677
15	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	-	-	0.8640	1.4400	4.6693
16	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	-	-	0.8640	1.4400	4.6693
17	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	-	-	0.8640	1.4400	4.6693
18	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	-	-	0.8640	1.4400	4.6693
19	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	-	-	0.8640	1.4400	4.6693
20	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	-	-	0.8640	1.4400	4.6693
21	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	-	-	0.8640	1.4400	4.6693
22	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	-	-	0.8640	1.4400	4.6693
23	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	-	-	0.8640	1.4400	4.6693
24	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	-	-	0.8640	1.4400	4.6693
25	3.0900	0.0221	0.1173	3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	-	-	0.8640	1.4400	4.6693
Levelized Tariff (1-25 Years)				3.2293	0.0621	0.1285	0.0852	0.4541	0.0931	0.0410	0.5626	0.3477	1.7742	2.9571	6.1864

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

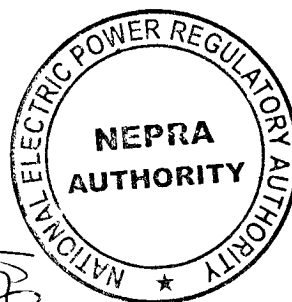
7.6898 /kWh



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

Annexure-II

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 Millin \$	Principal Million \$	Repayment Million \$	Mark-Up Million \$	Balance Million \$	Debt Service Millin \$			
1	84.90	1.29	2.02	83.61	\$3.31	86.85	1.44	1.74	85.41	3.17	0.2764	0.3586	0.6350
	83.61	1.33	1.99	82.28	3.31	85.41	1.47	1.71	83.94	3.17			
	82.28	1.36	1.95	80.93	3.31	83.94	1.50	1.68	82.45	3.17			
	80.93	1.39	1.92	79.54	3.31	82.45	1.53	1.65	80.92	3.17			
	84.90	5.37	7.88	79.54	13.25	86.85	5.93	6.77	80.92	12.70			
	79.54	1.42	1.89	78.11	3.31	80.92	1.56	1.62	79.36	3.17			
2	78.11	1.46	1.86	76.66	3.31	79.36	1.59	1.59	77.78	3.17	0.3013	0.3337	0.6350
	76.66	1.49	1.82	75.17	3.31	77.78	1.62	1.56	76.16	3.17			
	75.17	1.53	1.79	73.64	3.31	76.16	1.65	1.52	74.51	3.17			
	79.54	5.90	7.35	73.64	13.25	80.92	6.41	6.28	74.51	12.70			
	73.64	1.56	1.75	72.08	3.31	74.51	1.68	1.49	72.82	3.17			
	72.08	1.60	1.71	70.48	3.31	72.82	1.72	1.46	71.10	3.17			
3	70.48	1.64	1.67	68.84	3.31	71.10	1.75	1.42	69.35	3.17	0.3285	0.3066	0.6350
	68.84	1.68	1.63	67.16	3.31	69.35	1.79	1.39	67.56	3.17			
	73.64	6.48	6.77	67.16	13.25	74.51	6.94	5.76	67.56	12.70			
	67.16	1.72	1.60	65.45	3.31	67.56	1.82	1.35	65.74	3.17			
	65.45	1.76	1.55	63.69	3.31	65.74	1.86	1.31	63.88	3.17			
	63.69	1.80	1.51	61.89	3.31	63.88	1.90	1.28	61.98	3.17			
4	61.89	1.84	1.47	60.05	3.31	61.98	1.94	1.24	60.05	3.17	0.3581	0.2770	0.6350
	67.16	7.11	6.13	60.05	13.25	67.56	7.52	5.18	60.05	12.70			
	60.05	1.89	1.43	58.17	3.31	60.05	1.97	1.20	58.07	3.17			
	58.17	1.93	1.38	56.24	3.31	58.07	2.01	1.16	56.06	3.17			
	56.24	1.98	1.34	54.26	3.31	56.06	2.05	1.12	54.01	3.17			
	54.26	2.02	1.29	52.24	3.31	54.01	2.09	1.08	51.91	3.17			
5	60.05	7.81	5.43	52.24	13.25	60.05	8.14	4.56	51.91	12.70	0.3904	0.2447	0.6350
	52.24	2.07	1.24	50.17	3.31	51.91	2.14	1.04	49.77	3.17			
	50.17	2.12	1.19	48.05	3.31	49.77	2.18	1.00	47.60	3.17			
	48.05	2.17	1.14	45.88	3.31	47.60	2.22	0.95	45.37	3.17			
	45.88	2.22	1.09	43.65	3.31	45.37	2.27	0.91	43.11	3.17			
	52.24	8.58	4.66	43.65	13.25	51.91	8.81	3.89	43.11	12.70			
6	43.65	2.27	1.04	41.38	3.31	43.11	2.31	0.86	40.79	3.17	0.4256	0.2094	0.6350
	41.38	2.33	0.98	39.05	3.31	40.79	2.36	0.82	38.43	3.17			
	39.05	2.38	0.93	36.67	3.31	38.43	2.41	0.77	36.03	3.17			
	36.67	2.44	0.87	34.23	3.31	36.03	2.45	0.72	33.57	3.17			
	43.65	9.43	3.82	34.23	13.25	43.11	9.53	3.17	33.57	12.70			
	34.23	2.50	0.81	31.73	3.31	33.57	2.50	0.67	31.07	3.17			
7	31.73	2.56	0.75	29.17	3.31	31.07	2.55	0.62	28.52	3.17	0.4641	0.1710	0.6350
	29.17	2.62	0.69	26.55	3.31	28.52	2.60	0.57	25.91	3.17			
	26.55	2.68	0.63	23.87	3.31	25.91	2.66	0.52	23.26	3.17			
	34.23	10.36	2.89	23.87	13.25	33.57	10.32	2.38	23.26	12.70			
	23.87	2.74	0.57	21.13	3.31	23.26	2.71	0.47	20.55	3.17			
	21.13	2.81	0.50	18.32	3.31	20.55	2.76	0.41	17.78	3.17			
8	18.32	2.88	0.44	15.44	3.31	17.78	2.82	0.36	14.96	3.17	0.5060	0.1290	0.6350
	15.44	2.94	0.37	12.50	3.31	14.96	2.88	0.30	12.09	3.17			
	23.87	11.38	1.87	12.50	13.25	23.26	11.17	1.53	12.09	12.70			
	12.50	3.01	0.30	9.48	3.31	12.09	2.93	0.24	9.16	3.17			
	9.48	3.09	0.23	6.39	3.31	9.16	2.99	0.18	6.16	3.17			
	6.39	3.16	0.15	3.23	3.31	6.16	3.05	0.12	3.11	3.17			
9	3.23	3.23	0.08	(0.00)	3.31	3.11	3.11	0.06	0.00	3.17	0.5518	0.0833	0.6350
	12.50	12.50	0.75	-	13.25	12.09	12.09	0.61	0.00	12.70			
10											0.6017	0.0333	0.6350



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

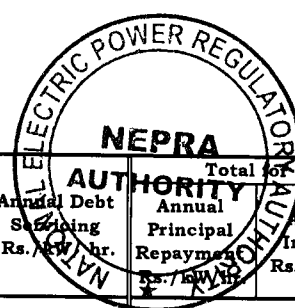
Annexure-II

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 Millin Rs.			
1	92.62	1.53	1.85	91.09	3.39	1,964.73	20.91	77.66	1,943.82	98.56	0.2356	0.3313	0.5669
	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			
	86.30	1.66	1.73	84.64	3.39	1,876.00	24.42	74.15	1,851.59	98.56			
2	84.64	1.69	1.69	82.95	3.39	1,851.59	25.38	73.18	1,826.21	98.56	0.2573	0.3096	0.5669
	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			
	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			
3	75.83	1.87	1.52	73.96	3.39	1,714.25	30.81	67.76	1,683.44	98.56	0.2812	0.2857	0.5669
	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			
	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			
4	66.10	2.06	1.32	64.04	3.39	1,547.54	37.40	61.17	1,510.14	98.56	0.3075	0.2594	0.5669
	72.05	8.02	5.53	64.04	13.54	1,651.42	141.27	252.98	1,510.14	394.26			
	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			
5	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
	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			
6	45.97	2.47	0.92	43.50	3.39	1,152.54	53.01	45.55	1,099.53	98.56	0.3685	0.1984	0.5669
	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			
	35.81	2.67	0.72	33.14	3.39	927.59	61.90	36.66	865.69	98.56			
7	33.14	2.72	0.66	30.41	3.39	865.69	64.35	34.22	801.34	98.56	0.4039	0.1630	0.5669
	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			
	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			
8	18.97	3.01	0.38	15.96	3.39	517.49	78.11	20.45	439.38	98.56	0.4431	0.1239	0.5669
	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			
	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			
9	3.32	3.32	0.07	(0.00)	3.39	94.82	94.82	3.75	-	98.56	0.4864	0.0805	0.5669
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**

Annexure-II



Period	Foreign Debt-ECA Facility USD					Annual Principal Repayment Rs./kW/ hr.	Annual Interest Rs./kW/ hr.	Total of Loan Facilities			
	Principal Million \$	Repayment Million \$	Mark-Up Million \$	Balance Million \$	Debt Service Millin \$			Annual Debt Servicing Rs./kW/ hr.	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	0.5758	0.7452	1.3210
	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	0.6254	0.6956	1.3210
	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	0.6796	0.6414	1.3210
	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	0.7388	0.5822	1.3210
	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	0.8036	0.5174	1.3210
	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	0.8744	0.4466	1.3210
	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	0.9520	0.3690	1.3210
	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	1.0370	0.2840	1.3210
	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	1.1302	0.1908	1.3210
	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	1.2325	0.0885	1.3210
	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						