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 01.02.19
 cc: chairman
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**BEFORE THE NATIONAL ELECTRIC POWER REGULATORY
 AUTHORITY, ISLAMABAD**

Petition No. _____ / 2019

STAR HYDRO POWER LIMITED

PETITIONER

**MOTION FOR REVIEW UNDER RULE 16(6) OF THE NATIONAL
 ELECTRIC POWER REGULATORY AUTHORITY
 (TARIFF STANDARDS AND PROCEDURE) RULES, 1998 IN THE
 MATTER OF DECISION DATED 18TH JANUARY, 2019 IN THE
 MATTER OF TARIFF MODIFICATION PETITION OF 147 MW
 PATRIND HYDRO POWER PROJECT DISTRICT MUZAFFARABAD
 AZAD JAMMU AND KASHMIR PAKISTAN**

Respectfully Sheweth

STATEMENT OF FACTS

1. That the Star Hydro Power Limited (the Petitioner / SHPL) has set up and operating 147-MW Patrind Hydropower Project located in district Muzaffarabad, AJ&K (the "Project").
2. That the Petitioner was granted EPC Stage Level Generation Tariff by the NEPRA Authority on 27th January, 2012 (Generation Tariff or EPC Stage Level Tariff).
3. That the Petitioner filed a Petition seeking Modification of EPC Stage Level Tariff for the Project (Modification Petition) (Annex - A).
4. That since the Project is located in AJ&K, the Petition was filed through the Central Power Purchasing Agency (Guarantee) Limited (CPPA-G).
5. That the NEPRA Authority conducted pre-admission hearing on 24th October, 2018 wherein arguments on the maintainability and

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 Dy. No.: 1012
 Dated: 01-02-19

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admission of the Petition were submitted and argued at length by the Petitioner.

6. That the CPPA-G did not object to or challenged the maintainability of the Modification Petition on the grounds that the suggested modifications should be mutually agreed by both CPPA-G and SHPL through an amendment to the Power Purchase Agreement dated 10th March 2008 (PPA).
7. That notwithstanding the aforesaid, the NEPRA Authority after reserving its decision has now conveyed through Letter No. NEPRA/R/IPT-100/SHPL/881-881 dated 18th January, 2019 that the Modification Petition is not maintainable (**Impugned Determination**) (**Annex – B**).
8. That the NEPRA Authority has held in the Impugned Determination that the Modification Petition is not maintainable and can only be considered if both CPPA-G and the Petitioner agree on amendment of the PPA and then send the amended PPA for approval of the NEPRA Authority.
9. That aggrieved with such Impugned Determination of the NEPRA Authority, the Petitioner is filing this Review Petition on the following grounds:

STATEMENT OF GROUNDS

- A. That the CPPA-G while submitting the Modification Petition opined that the NEPRA Authority has developed a mechanism for hydro power plant for determination of tariff and subsequent adjustments at different stages of hydro power projects. In this respect three distinct stages have been identified when cost may differ. These costs are:
 - (i) Feasibility Level Costs;
 - (ii) EPC Level Costs; and
 - (iii) Final Costs at the time of Commercial Operations Date.

- B. That accordingly, the CPPA-G did not support the Modification Petition of the Project on the grounds *that such modification is not allowed in the above referred mechanism (Annex – C)*.
- C. That the NEPRA Authority through its Impugned Determination has held that the Modification Petition is not maintainable on an *entirely different aspect and ground* which was never framed, argued or examined at the time of the hearing or otherwise and hence was not in the knowledge of the Petitioner.
- D. That thus the Petitioner did not have opportunity to meet the objection or ground of rejection and has therefore been deprived of its valuable rights and opportunity of being heard on this particular issue and aspect of maintainability of the Modification Petition requiring amendment of the PPA.
- E. That the NEPRA Authority has based the Impugned Determination on Regulation 6 of the NEPRA Import of Electric Power Regulations 2017 (IEPR 2017) which states that “no amendment in the terms and conditions of the PPA, affecting the rates or their conditions shall be made except with prior approval of the NEPRA Authority.”
- F. That based on Regulation 6 of the IEPR 2017, the NEPRA Authority has held the Modification Petition to be non-maintainable and has opined that modification of generation tariff can only be considered if both CPPA-G and SHPL agree on the amendment of the PPA.
- G. That the NEPRA Authority has erred, mistaken itself and adopted an improper procedure, giving rise to irregularity and questions the legality of the Impugned Determination on account of following particular grounds and reasons:
- (i) That the NEPRA Authority in the matter of Tariff Modification Petition filed by Uch-II Power (Pvt.) Ltd. [Case # NEPRA/TRF-266/Uch-II-20141 dated 22nd April, 2015, had allowed the modification petition without requiring prior amendment of the power purchase agreement between the seller and the buyer;

- (ii) That on the issue of the maintainability of modification petition the NEPRA Authority had determined as follows:

"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. The 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 tariff's 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." (emphasis added)

- (iii) That 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 were 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 shall examine 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 held maintainable.

(iv) That the NEPRA Authority in the matter of Tariff Modification Petition filed by Engro Energy Limited in the matter of Petition filed by Engro Energy Limited for Revision / Modification of Generation Tariff dated July 18th, 2009 [Case # NEPRA/TRF-140/EEPL-2009] allowed:

(a) Onetime adjustment on account of HSD price variation at first fill of HSD at the time of Commercial Operation Date (COD);

(b) Passing on the impact of Withholding Tax on Interest Income of Lenders till and after COD in accordance with the contractual obligations, to the Power Purchaser on actual basis.

(c) This Decision shall become part of the earlier determination dated July 18th, 2009.

(v) That the NEPRA Authority in the matter of Tariff Modification Petition filed by Halmore Power Generation Company Limited, M/s Saif Power Limited, Orient Power Company (Private) Limited and Sapphire Electric Company Limited admitted modification petitions in their generation tariffs but rejected them on grounds of insufficient information and lack of documentation after going through detailed merits.

(vi) That the NEPRA Authority in the matter of tariff modification petition filed by Japan Power Generation Limited held it to be not maintainable on the grounds that its tariff was fixed upfront and hence its power purchase agreement was to be amended in

agreement with power purchaser which is not the case of the Petitioner and as such is distinguishable.

- (vii) That the NEPRA Authority cannot discriminate against the Petitioner by adopting different and varying standards of interpretation whereas permitting and admitting other power projects modification petitions in relation to the generation tariffs.
- (viii) That the amendment of the PPA shall be affected in light of determination made by the NEPRA Authority on the Modification Petition and not otherwise;
- (ix) That the Rates as defined in the IEPR 2017 includes the terms and conditions of Import of Power as approved by the NEPRA Authority. That such rates form part of Tariff Proposal, defined as proposed rates offered by the seller to the buyer for sale of its electric power, submitted through the Modification Petition by the Petitioner which has to be determined and approved by the NEPRA Authority;
- (x) That Schedule I of the PPA is based on the EPC Stage Tariff Determination granted to the Petitioner by the NEPRA Authority and any modification to Schedule I of the PPA or the terms and conditions has to be determined or approved by the NEPRA Authority on petition of Petitioner and in case of AJ&K projects through CPPA-G;
- (xi) That the admission of the Modification Petition in terms of Regulation 3 of the IEPR 2017 is limited to and contingent upon *submission of all the required information and documents*;
- (xii) That if all the relevant and necessary information is provided to the satisfaction of the NEPRA Authority, the Modification Petition is required to be admitted for further proceeding in accordance with Regulation 3 (6) of the IEPR 2017;
- (xiii) That the NEPRA Authority did not seek any other information or document from the Petitioner or CPPA-G and *hence there is no*

ground available under the IEPR 2017 for non-admission of the Modification Petition;

- (xiv) That furthermore, no amendment in the terms and conditions of the PPA affecting the rates or conditions shall be made except with prior approval of the NEPRA Authority. Such amendment in the terms and conditions of the PPA affecting the rates or conditions in case of the Project can only be carried out through Modification Petition duly determined by the NEPRA Authority and when so determined shall be incorporated in the PPA through amendment with the prior approval of the NEPRA Authority;
- (xv) That the amendment of the PPA without determination of Modification Petition through the mutual consent of the seller and buyer militates against the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 (as amended from time to time) (NEPRA Act) wherein the NEPRA Authority is exclusively responsible for regulating the provision of the electric power services under Section 7 (1) and Section 31 (1) of the NEPRA Act and furthermore the NEPRA Authority is required to determine tariff, rates, charges and other terms and conditions for the supply of electric power services by the generation company in accordance with Section 7 (3) (a) of the NEPRA Act;
- (xvi) That the Regulation 6 of the IEPR 2017 is not independent of the other regulations as contained in the IEPR 2017 and Regulation 6 of the IEPR 2017 is arrived in exactly the same manner as Regulation 5 of the IEPR 2017 relating to execution of the power purchase agreement and hence any amendment to the power purchase agreement has to be preceded by submission of tariff proposal, admission of tariff proposal and determination of tariff proposal.
- (xvii) That the NEPRA Authority has erred by not appreciating the revised mechanism introduced by IEPR 2017 wherein Tariff Proposal has to be determined by the NEPRA Authority prior to the execution or amendment of the PPA;
- (xviii) That the NEPRA Authority has erred by inadvertently, impliedly and implicitly referring to Regulation 7 of the NEPRA Interim

Power Procurement (Procedures and Standards) Regulations 2005 (Interim Regulations 2005) wherein in case of purchase of power from a generating company or an entity which is located outside the territories of Pakistan, the proposed power acquisition contract with such a company or an entity shall be filed alongwith necessary government approvals / understanding. However, this Regulation 7 has been repealed under Regulation 4 (7) of the IEPR 2017. Hence the NEPRA Authority is not appreciating and misconstruing the revised mechanism introduced by IEPR 2017 whereby the Tariff Proposal has to be determined by the NEPRA Authority prior to the execution or amendment of the PPA;

- (xix) That it is not legally permissible to agree to amendments of the rates, terms and conditions of the tariff without determination of such rates, terms and conditions in a transparent manner through public process which includes comments from the stakeholders, placement of evidence on record, objections and participation of public etc.
- (xx) That under Section 7 and 31 of the NEPRA Act and other enabling provisions of the law the Modification Petition is admissible. For ease of reference, the relevant provisions of the NEPRA Act and Tariff Rules are as under:

Rule (3) (1) of the Tariff Rules is as under:

“Filing of petitions and communications – (1) any licensee, consumers or person interested in the tariff may file a petition with the Authority by filing it with the Registrar along with such fees as may be determined by the Authority from time to time. The Authority may also initiate proceeding suo moto.”

Further as per the definition of ‘Petition’ provided in Rule 2 (1) of the Rules of 1998, a petition means a petition made to the Authority for determination, modification or revision of tariff.

The afore stated power and mandate arises out of inter alia Section 7 (3) of the Rules of the NEPRA Act, 1997 which read as follows:

".... the Authority shall determine tariff, rates charges and other terms and conditions for supply of electric power services by the generation, transmission and distribution companies..."

Neither the NEPRA Act nor the NEPRA Rules bar a company, including the Petitioner, from applying for a new tariff or modification in its existing tariff.

It may also be noted that the NEPRA Authority itself has also observed and determined previously that "NEPRA has to take liberal view of genuine requests and such request should not be allowed to be defeated on the technical grounds of limitation.

(xxi) Therefore in light of the aforesaid legal provisions which do not bar modification petitions, the questions for consideration before the NEPRA Authority are that:

(a) whether the petition has been filed on the basis of valid legal justifications;

(b) whether the claims and requests are justified; and

(c) whether the costs claimed have been prudently incurred or not.

(xxii) That the NEPRA Authority shall examine the prudence of the claims and requests made by the Petitioner in the Modification Petition and embark on such exercise together with the question of admissibility to arrive at just, fair, equitable, prudent and reasonable determination.

(xxiii) That on the merits, the Modification Petition seeks modifications of the Generation Tariff on account of such costs and expenses which surfaced after the notification of the Generation Tariff which were unforeseeable and beyond the reasonable control of the Petitioner and include or are on account of the following :

(a) Site Security;

(b) Environmental & social costs;

(c) Delay in achieving financial close due to government entities:

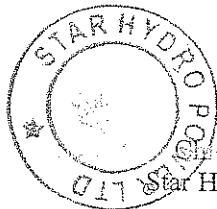
- (i) Delay in land acquisition;
- (ii) Delay in execution of Concession Agreements
- (d) Delay in Achieving Commercial Operations Date;
 - (i) Failure to complete Power Purchaser Interconnection Facilities;
 - (ii) Non-availability of NTDC Independent Engineer to carry out Testing.

These events triggered modification of certain components of the generation tariff as enumerated in the Modification Petition.

STATEMENT OF PRAYER

In view of above explained facts, reasons and grounds that were not considered, incorrectly determined or erroneous, it is, therefore, earnestly requested:

- (i) That the NEPRA Authority may graciously admit instant Motion for Review;
- (ii) That the Impugned Determination may be reconsidered on the grounds, facts and circumstances as submitted hereinabove;
- (iii) That the Impugned Determination is recalled, set aside and or annulled;
- (iv) That the Modification Petition is admitted;
- (v) That the Petitioner may please be afforded an opportunity of being heard including a personal hearing before the NEPRA Authority;
- (vi) That the Petitioner may please be permitted to submit further oral and written submissions with necessary documentary evidence;
- (vii) That the Petitioner may please be allowed to amend, modify and to add further grounds in addition to the already recorded hitherto;
- (viii) That to allow any other/consequential relief as deemed appropriate in the circumstances of the case and in the interest of equity and justice.



[Handwritten Signature]
Petitioner

Chief Executive Officer
Star Hydro Power Limited
Islamabad

31st January, 2019

ANNEX-A

**STAR HYDRO**

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Date: July 05, 2018

Ref. No: SHPL/INT/135(5)/468

Chief Executive Officer

Central Power Purchasing Agency Guarantee Ltd. (CPPAGL)

Ground Floor, NEECA Building (Near NESPAK Office),

Sector G-5/2, Islamabad.

**SUBJECT: MODIFICATION OF EPC LEVEL TARIFF & ADJUSTMENT OF
TARIFF AT COD - 147MW PATRIND HYDROPOWER PROJECT
(THE "PROJECT") - STAR HYDRO POWER LIMITED (THE
"COMPANY")**

References:

- i. NEPRA Authority's Determination in case No. NEPRA/TRF-172/SHPL-2011/7703 dated January 27, 2012.
- ii. Company's submission of Modification of the EPC Reference Tariff petition vide Letter No. SHPL/INT/135(5)/463 dated May 24, 2018.
- iii. Company's submission of Petition for Adjustment of Tariff at COD vide Letter No. SHPL/INT/135(5)/463 dated May 31, 2018.
- iv. Meeting with CTO-CPPAG in CPPAG Office dated June 11, 2018.
- v. Company's clarification letter No. SHPL/INT/135(5)/467 dated June 11, 2018.

Dear Sir

This is with reference to the above.

1. The Company hereby withdraws the Petition dated May 24, 2018 for Modification of EPC Level Tariff.
2. The Company hereby also withdraws the Petition dated May 31, 2018 for Adjustment of Tariff at COD.
3. The Company hereby submits a Petition for Modification of EPC Level Tariff dated July 05, 2018 ab initio.

With profound regards

Waqar Ahmad Khan
Chief Executive Officer

STAR HYDROPOWER LIMITED

147 MW PATRIND HYDRO POWER PROJECT
DISTRICT MUZAFFARABAD
AZAD JAMMU AND KASHMIR PAKISTAN

PETITION/APPLICATION FOR MODIFICATION OF EPC REFERENCE TARIFF

SUBMITTED TO
NATIONAL TRANSMISSION AND DESPATCH COMPANY LIMITED/CPPA-G

July 05, 2018



STAR HYDRO
K-water Global

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ABBREVIATIONS AND DEFINITIONS

AJ&K	Azad Jammu & Kashmir
BOOT	Build, Own, Operate & Transfer
COD	Commercial Operation Date
Company	Star Hydro Power Limited
CPI	Consumer Price Index
CPPA-G	Central Power Purchasing Agency (Guarantee) Limited
CRE	Chief Resident Engineer
ECC	Economic Coordination Committee of Cabinet of Pakistan
EIA	Environmental Impact Assessment and Resettlement Plan
EPA	Environmental Protection Agency
EPC	Engineering, Procurement & Construction
GOAJK	Azad Government of the State of Jammu & Kashmir
GOKP	Government of Khyber Pakhtunkhwa
GOP	Government of Pakistan
HBL	Habib Bank Limited, Financial Advisors
Hydropower-Tariff Mechanism	NEPRA's Mechanism for Determination of Tariff for Hydropower Projects
IDC	Interest During Construction
IFC	International Finance Corporation
IPP	Independent Power Producer
IRR	Internal Rate of Return
KIBOR	Karachi Interbank Offer Rate
KP	Khyber Pakhtunkhwa
KWh	Kilowatt hour
L/C	Letter of Credit
LIBOR	London Interbank Offer Rate
LOI	Letter of Interest
LOS	Letter of Support
MW	Mega Watt (1,000 kilowatts)
NEPRA	National Electric Power Regulatory Authority
NEPRA Act	Regulation of Generation, Transmission & Distribution of Electric Power Act 1997
NTDC	National Transmission and Dispatch Company Limited
O&M	Operation & Maintenance
POE	Panel of Experts
PES	Pakistan Engineering Services, Technical Advisors
Power Policy 2002	The GOP's Policy for Power Generation Projects, 2002
Project	147-MW Patrind Hydropower Project
PKR/Rupees/Rs.	Pak Rupees, Legal Tender of Pakistan
PPIB	Private Power & Infrastructure Board of the Ministry of Water & Power
PPA	Power Purchase Agreement
PPIF	Power Purchaser's Interconnection Facilities
ROE	Return on Equity
ROEDC	Return on Equity during Construction
RCOD	Required Commercial Operation Date
SHPL	Star Hydro Power Limited
SCOD	Schedule Commercial Operation Date
UAE	United Arab Emirates
UBL	United Bank Limited, Financial Advisors
USD/\$	United States Dollars; legal tender of USA
US CPI	United States Consumer Price Index
WPI	Wholesale Price Index
WUC	Water Use Charges

Technical words or terms used but not defined herein shall bear the meanings ascribed thereto in the power industry.

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Tariff Modification Petition/Application

Star Hydro Power Limited

Since the Project is located in the AJ&K, the Company is hereby filing the petition / application (hereinafter the **Modification Petition**) to NEPRA through CPPA-G, for modification of the certain costs allowed by the NEPRA in the EPC Stage Tariff, approved by NEPRA Authority in case No. NEPRA/TRF-172/SHPL-2011/7703 dated January 27, 2012 (hereinafter the **EPC Reference Tariff**).

GENERATION LICENSE

The NEPRA Act is not extended to or adapted in the territory of Azad Jammu & Kashmir (AJ&K), therefore, the electricity generation projects within the territorial jurisdiction of AJ&K do not require to obtain a Generation License from NEPRA Authority. Hence, there is no requirement for the Company to obtain the Generation License from the NEPRA Authority.

GROUND

That the Modification Petition is based on facts, circumstances and grounds that are elaborated in background information and Section 2 of this Modification Petition.

MODIFIED COST & TARIFF

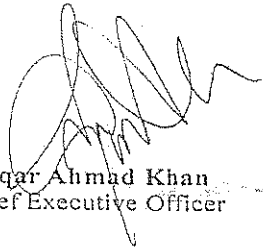
Modified Project cost and Tariff, resulting from the modification of certain costs, is attached herewith in Section 4 to the Modification Petition

PRAYER

It is prayed that the NEPRA Authority:

- A. Accepts this Modification Petition
- B. Modifies the costs requested by the Company;
- C. Approves the Modified EPC Reference Tariff; and
- D. Approves the terms and conditions of the Modified EPC Reference Tariff.

We would like to avail the opportunity of hearing in the matter before the NEPRA Authority to fully elaborate our point of view supported by valid and cogent evidence to clarify grounds, facts and circumstances as laid down in this Modification Petition



Waqar Ahmad Khan
Chief Executive Officer

SECTION 1: INTRODUCTION

1.1 Introduction

- 1.1.1 The 147-MW Patrind Hydropower Project (the Project) is located in district Muzaffarabad, Azad Jammu and Kashmir (AJ&K). Part of the Project is located in the District Abbottabad, Province of Khyber Pakhtunkhwa (KP). The Project utilises the water from River Kunhar which flows within the territories of AJK and KP. It is thus a unique Project with dual boundary. The Project has been developed in private sector under the Policy for Power Generation Projects 2002 (Power Policy 2002) and is on a Build-Own-Operate-Transfer (BOOT) basis.
- 1.1.2 Star Hydro Power Limited (the "Company" or "SHPL") is a special purpose company incorporated in April 2006 under the Companies Ordinance 1984 to build, own and operate the Project.
- 1.1.3 The Sponsors of the Company are Korea Water Resource Corporation (K-water) and Daewoo Engineering & Construction Company (Daewoo) through their special purpose Singapore based vehicle, KDS Hydro Pte Ltd.
- 1.1.4 K-water was established in 1967 and is owned by the Government of the Republic of Korea. It is Korea's leading water-related enterprise. Since its establishment, K-water has constructed and operated 26 hydropower projects, including 15 multipurpose dams. Moreover, three multipurpose dams are currently under construction. Due to high-level dam operation technology, K-water provides sufficient supply of industrial and drinking water, meeting the demands of the Korean economic growth. It also protects lives and property from natural disasters such as floods and droughts. In addition, K-water has been constructing and operating bulk water supply systems to provide clean water to all populations with limited water resources. Moreover, K-water has been researching and developing the sea water desalination technology. K-water's revenue in 2016 was about USD 3.5 billion. In order to maintain its rapid growth, K-water is aggressively expanding its overseas businesses and SHPL is yet another project co-acquired by K-water so as to augment its expansion strategy.
- 1.1.5 Daewoo was founded in 1973 and is based in Seoul, South Korea. Daewoo is a premier construction company which provides engineering and construction services related to the civil works, housing, dams, power projects, industrial plants, architecture, and liquefied natural gas facilities. It has also worked on a number of overseas projects.
- 1.1.6 The debt portion of the total project cost including the Modified Project cost has been financed by Asian Development Bank ("ADB"), Islamic Development Bank ("IsDB"), International Finance Corporation ("IFC"), The Export-Import Bank of Korea ("KEXIM") (collectively hereafter referred to as the "Lenders").

1.2 Project Development History

- 1.2.1 After receiving the LOI in October 2005, the Pakistan Engineering Services (PES) and Fichtner, GmbH, Germany (FICHTNER) were appointed as consultants to conduct a feasibility study. The consultants carried out a detailed feasibility study which was completed by the end of March 2007. During the feasibility stage, the Company and the consultants regularly briefed the Panel of Experts (POE), appointed by the PPIB, on the progress, investigations and analyses of the feasibility level studies. The feasibility study was formally approved by the POE/PPIB in July 2007.

- 1.2.2 Since the Project was being set up in AJ&K, a feasibility level tariff proposal was filed with the Power Purchaser i.e. National Transmission and Despatch Company Limited (NTDC) on 28 August 2007. The Company and the Power Purchaser reached an agreement on the feasibility level tariff on 17 October 2007.
- 1.2.3 The NTDC filed the agreed feasibility level tariff before NEPRA Authority for its approval. Such tariff was approved by NEPRA Authority on 13 February 2009. NEPRA Authority allowed a levelized tariff of US Cents 6.1042/kWh at reference exchange rate of PKR 79 per US dollar (Pak Rupees 4.8223/kWh).
- 1.2.4 Based on the most responsive EPC bid and its proposed EPC level design, the Company submitted its EPC level tariff proposal on 20 February 2010 to the NTDC. The levelized tariff proposed by the Company was US cent 9.0475/kWh.
- 1.2.5 After further field investigations and high level numerical analysis, the EPC design was further refined and finalized. Based on these refinements and intense negotiations with the EPC Contractor, the Company was able to revise downward the EPC price, leading to a tariff of US cent 8.2938/kWh which translated into PKR 7.0498/kWh at an exchange rate of Rs. 85 per USD. Revised EPC Level Petition was filed with the NTDC on 06 August 2010.
- 1.2.6 The NTDC filed the EPC Level Tariff before NEPRA Authority in March 2011.
- 1.2.7 The Levelized Tariff of US Cents 8.2936/kWh was approved by NEPRA Authority vide Case No. NEPRA/TRF-172/SHPL-2011/7703 dated January 27, 2012 (EPC Tariff Approval).
- 1.2.8 The following table provides the timelines of the significant milestones achieved:

Summary of the Milestones achieved	
Letter of Interest	October 26, 2005
Approval of the Feasibility Study	July 10, 2007
Filing of Feasibility Level Tariff	August 28, 2007
Approval of Feasibility Level Tariff	February 13, 2009
Submission of EPC Level Tariff	February 20, 2010
Letter of Support	June 30, 2010
Environmental Approval by EPA AJ&K	August 11, 2010
Environmental Approval by EPA KPK	April 14, 2011
Water Use Agreement (KP)	October 31, 2011
GOP Implementation Agreement (GOP IA)	November 30, 2011
Execution of Financing Documents	December 13, 2011
EPC Tariff Approval	January 27, 2012
AJ&K Implementation Agreement (AJK IA)	February 11, 2012
Water Use Agreement (AJK)	February 11, 2012
Power Purchase Agreement	March 08, 2012
Financial Closing	December 20, 2012
Notice To Proceed for EPC Contractor	December 26, 2012
Commercial Operations Date	November 08, 2017

SECTION 2: GROUNDS

2.1 Modification Petition

The costs determined by the NEPRA Authority in the EPC Tariff Approval were based on defined set of general assumptions. Subsequent to the EPC Tariff Approval, certain conditions, circumstances and additional requirements of the AJ&K and KP Governments, which were beyond the control of the Company and could not be foreseen, have imposed additional costs on the Company. This Modification Tariff is submitted to NEPRA Authority through CPPA-G for recovery of such costs based on the facts, circumstances and grounds as explained herein.

2.2 Submission of Modification Petition

The Power House / Complex of the Project is located in the territories of AJ&K and therefore the purchase of power from the Project was governed by the Regulation 7 of the Interim Power Procurement (Procedure & Standards) Rules 2005 (IPPR 2005). Accordingly, the Company had filed the EPC Tariff Proposal through the Power Purchaser which was duly approved by the NEPRA Authority.

That the EPC tariff rates and terms and conditions of the EPC tariff as approved by the NEPRA Authority were incorporated in the Power Purchase Agreement dated 8th March 2012 executed between the Company and the NTDC. In the meanwhile, Regulation 7 of the IPPR 2005 has been repealed and substituted with NEPRA Import of Electric Power Regulations 2017 (IEPR 2017).

That pursuant to Regulation 4 of the IEPR 2017, upon admission of tariff petition, the proceedings shall be conducted mutatis mutandis in accordance with the procedures and standards prescribed under NEPRA Tariff (Standards Procedure) Rules, 1998 (Tariff Rules). Accordingly, the Modification Petition is filed before the NEPRA Authority through the CPPA-G for the Modification of EPC Reference Tariff and rates and terms and conditions of the EPC Reference Tariff.

That pursuant to Regulation 5 of the IEPR, the Buyer shall execute the Power Purchase Agreement as per the rates and terms and conditions so determined by the NEPRA Authority as notified in the official gazette. Furthermore, pursuant to Regulation 6 of the IEPR, no amendment in the terms and conditions of the PPA, affecting the Rates or their conditions shall be made without the prior approval of the NEPRA Authority.

That in the alternative, this Modification Petition is filed before the NEPRA Authority for the modification of certain costs approved earlier by the NEPRA Authority in the EPC Reference Tariff as incorporated in the PPA.

2.3 NEPRA's Rules and Practice in Relation to the Modification of Tariff

- 2.3.1 Pursuant to Rule 3 of the Tariff Rules, any licensee, consumer or person interested in the tariff is entitled to file a "petition" with the NEPRA. The meanings of the "Petition" in the Tariff Rules include the petition for modification of a tariff.
- 2.3.2 Rule 17(3)(i) of the Tariff Rules allows for recovery of "any and all costs prudently incurred" through tariff determination, modification or revision.
- 2.3.3 NEPRA Act, Rules and Regulations do not prescribe any time limit for the filing of tariff modification petition.
- 2.3.4 The Company places reliance on the precedence of the 405 MW Uch - II Power Project wherein NEPRA Authority accepted the modification petition of Uch-II Power (Pvt) Limited after its Commercial Operation Date and notified its determination through NEPRA/TRF-266/UCH-II-2014/6206-6208 dated April 22, 2015.

2.4 Grounds for the Modification Petition

The following facts, circumstances and grounds have occurred subsequent to determination of the EPC Reference Tariff which has led to the imposition and incurring of additional costs on the Company which can only be recovered through modification of the EPC Reference Tariff by NEPRA Authority and there is no alternative remedy available to the Company.

2.4.1 Site Security:

There is no component or element of Site Security in the EPC Reference Tariff. However, during the construction period, the Police Departments of the AJ&K and KP demanded that the Company should obtain additional security cover from the Police Department in consideration of payments to be made by the Company as part of the security protocol of the relevant Governments.

The Company was thus required to sign Security Arrangement Agreements with the Police Departments of the AJ&K & KP which caused additional costs to the Company. These security arrangements are for the term of the construction period and shall also remain in effect during the operation and maintenance period. The costs associated with the Site Security have already been allowed to the CPEC Projects which is the precedent for the inclusion of the security cost through the Modification Petition.

The details of the additional costs are given in Section 3 below.

2.4.2 Environment & Social Costs:

Following the start of construction, the Lenders, which are International Financial Institutions (IFIs), with particular focus on development activities, required the Company to undertake additional environmental & social activities which resulted in additional costs for the Company. These costs relate to external monitoring for oversight of involuntarily resettlements and environmental and social safeguards for the affected areas and people and, carrying out audit for compliance of labour laws and conditions.

The details are provided in Section 3 below.

2.4.3 Delay in Achieving Financial Closing

The achievement of Financial Closing of the Company was prescribed as 29 December 2011 (**Financial Closing Date**) under and pursuant to the terms and conditions of the Letter of Support No I(101) PPIB-2006-02/12/PRJ dated 30 June 2010 (LOS). However, the Financial Closing was revised and then required to be achieved within the Extended Financial Closing Date of 31 December 2012. The Company achieved the Financial Closing on 20 December 2012. This delay of one year in the achievement of the Financial Closing, duly acknowledged by the GOP / PPIB, is attributable to the following factors:

2.4.3.1 Delay in Provision and Finalization of Concession Agreements:

Since the Project was the first hydro power project under the Power Policy 2002, the negotiations and finalisation of the Concession Agreements took considerable time. The Project was first to negotiate and finalise such prototype concession agreements prepared for hydropower projects of the Power Policy 2002.

The Economic Coordination Committee's (ECC) of the GOP approved the concession agreements which were made available to the Company by PPIB on March 04, 2010. Once the concession documents were made available to the Company, the PPIB issued LOS to the Company. Pursuant to the terms and conditions of the LOS, the Company, GOP, GOKP & GOAJK commenced negotiations of the concession documents for achieving the Financial Closing.

The negotiations and signing of the concession agreements took almost two (2) years as there were multiple parties involved that required approvals from four legal jurisdictions, the GOP, GOKP, AJ&K Council and the GOAJK. Since it was first hydropower Project under the Power Policy 2002, the GOKP and GOAJK approval processes were time consuming and painstaking being on learning curve. Moreover, the Project was dual boundary between the KP and AJ&K and hence a mechanism was to be evolved for the distribution and sharing of benefits accruing from the Project. After considerable time and effort, mechanism for sharing of water use charges, was devised that was acceptable to all the stakeholders. The dates of initialling and signing of each agreement is tabulated below: -

Name of Concession Agreement	Date of Initialling	Date of Signing
PPA	April 05, 2011	March 08, 2012
GOP IA	April 06, 2011	November 30, 2011
AJK IA	July 08, 2011	February 11, 2012
AJK WUA	July 19, 2011	February 11, 2012
KP WUA	October 03, 2011	October 31, 2011

2.4.3.2 Water Use Agreement & Sharing of Water Use Charges Mechanism:

Since the Project's weir is located in the territory of both AJ&K and the KP, there was a disagreement and difference between the GOAJK and the GOKP, on the eligibility and distribution of Water Use Charges. Each claimed entitlement of the water use charges with the result that negotiations on the Water Use Agreements were stalled. In order to settle the issue of water use charges sharing mechanism between KP and AJ&K, the Company had to run from pillar to post. For resolution of this issue, management of SHPL met the Chief Minister, Chief Secretary of KP, Federal Secretary Water & Power as well as Secretary Energy & Power KP and relevant officials of the GOAJK.

The mechanism for the sharing of water use charge between the GOAJK and the GOKP was finalized on January 14, 2011 and the same was communicated to the Company on February 03, 2011.

It is pertinent to mention that due to disagreement on the sharing mechanism of water use charges, the approval of the Environmental Impact Assessment (EIA) from the Environmental Protection Agency, GOKP was delayed for a year as compared with EIA Approval from GOAJK. The comparison of EIA approval date from both Governments is as under: -

	AJK	KP
EIA Approval	August 11, 2010	April 14, 2011

2.4.3.3 Direct Agreements with the Lenders

The finalisation and the signing of the Direct Agreements to the Concession Agreements with the Lenders which was a critical condition precedent to the Financial Closing also took quite some time. The GOAJK and GOKP were made to understand the desirability, need and criticality of the Direct Agreements. Consequently, there was considerable delay in the negotiations, finalisation and approval of the Direct Agreements.

Apart from the above, the Lenders required certain indemnities keeping in view that the AJ&K is a separate legal jurisdiction whose future status is yet to be determined in accordance with the wishes of the people of AJ&K. These indemnities pertained to the indemnification of the Lenders arising out of illegality, voiding and unenforceability of the concession agreements. Since it required assumption of obligations and liabilities by the GOP, approvals were solicited from the ECC of the GOP. These indemnities were approved by the ECC in its meeting held on October 10, 2012 on a summary moved by the then Ministry of Water and Power which paved the way for the signing of the Direct Agreements.

The table below shows the date of signing of each Direct Agreement. It is pertinent to mention that for the KP WUA Direct Agreement, the Company had to take waiver from Lenders for Financial Closing and it was signed post Financial Closing.

Name of Direct Agreement	Date of Signing
PPA Direct	November 29, 2012
AJ&K WUA Direct	December 07, 2012
AJ&K IA Direct	December 17, 2012
GOP IA Direct	December 17, 2012
KP WUA Direct	January 22, 2013

2.4.3.4 Issues related to Land acquisition

The Company had to strive hard to make the relevant departments of AJ&K and KP appreciate that the land required for the Project was for the public purpose and in the interest of public. The Company urged the Governments to acquire the land on fast track basis so that the prices of the land could be locked and to avoid speculation and profiteers. The revenue department of AJ&K was of the opinion that GOAJK could not acquire the land for the Company in the absence of AJK IA whereas the Local Government/Revenue Department of the KP proceeded on erroneous assumption that the Government could not transfer the title of land in the name of SHPL being a foreign company due to its shareholding irrespective of the fact that the SHPL had a separate legal personality and was duly recognised by the GOP under the Power Policy 2002. It took enormous efforts by the Company through Federal Government namely PPB to convince GOKP to start the land acquisition process under the Land Acquisition Act 1894 (LAA) for the Project as it was being developed under the Power Policy 2002 and as the Company was registered with the SECP and hence was duly entitled to acquire land in its name. Eventually, the Company's stance was vindicated. However, considerable money was spent and substantial time had lapsed.

In AJ&K, the Company submitted its application for acquisition of land on July 14, 2010 and the first notification under Section 4 of the Land Acquisition Act 1894 (AJK LAA) was issued on February 14, 2011 which means the process was formally started after 7 months from Company's initial application despite consistent efforts by the Company during the interim period. The final award for the land acquisition was issued on February 21, 2012 and the Lease Agreement was signed on August 16, 2012. This translates to more than two years in the finalization of land process on the AJ&K side.

In KP, the process of land acquisition was started by the Company on February 21, 2011 when the Company submitted its application to revenue department, after the revenue department was convinced that SHPL could acquire land in its name and the department became willing to accept SHPL's application. It took 5 months for the formal issuance of the notification under Section 4 of the Land Acquisition Act 1894 (KP LAA), which was issued

on July 2, 2011. The award for the land was issued on April 04, 2012 and the mutation in the name of the Company was done on November 15, 2012, which translates to twenty-one months' duration in finalization of land process on the KP side.

In practice, the entire land acquisition process took approximately 2 years from the start of process on both AJ&K and the KP sides of the Project which is twice the period otherwise required under the LAA. The Company had to face numerous challenges in satisfying the claims of land valuation and land disputes which was successfully culminated.

Sr. No	Location Area	Milestones	Date	No of Days Taken	Remarks
1	AJ&K	Start of process for Land Acquisition in AJ&K	July 14, 2010	0	Application was filed for the Acquisition of Land under AJK LAA
		Issuance of Section 4 Notification	February 14, 2011	215	Section 4 Notification was issued by the Collector Land rural Muzaffarabad for the acquisition of land
		Issuance of Award for the Acquisition of Land	February 21, 2012	587	The Award for the Acquisition of Land was issued on 21 Feb, 2012.
		Mutation of Land in the name of GOAJK	July 09, 2012	726	Land transferred in the name of the GOAJK
		Land Lease Agreement between the GOAJK and the Company	August 16, 2012	764	Land Leased in the name of the Company
2	KP	Start of process for Land Acquisition in KP	February 21, 2011	0	Application was filed for the Acquisition of Land under KP LAA.
		Issuance of Section 4 Notification	July 20, 2011	149	Section 4 Notification issued by the DOR Abbottabad for the acquisition of land
		Issuance of Award for the Acquisition of Land	April 4, 2012	408	The Award for the Acquisition of Land was issued on 4 April 2012
		Mutation of Land in the name of GOKP	August 29, 2012	555	Land transferred in the name of the GOKP
		Transfer Deed in the name of Company	September 25, 2012	582	Transfer Deed executed by the GOKP in the name of the Company
		Mutation of Land in the name of the Company	November 15, 2012	633	Land transferred in the name of the Company

2.4.3.5 Other Factors

Detailed due diligence was carried out by the Lenders since the Project was the first hydropower project of Power Policy 2002 and also because it was located in three jurisdictions i.e. Pakistan and the territories of Kashmir as well as the Province of KP. Such due diligence led to considerable demands, in terms of expense and time, on the Company in relation to the satisfaction of the 'Condition Precedents' to the Financial Closing.

Nevertheless, the Company actively pursued the finalisation of the Financing Documents with the Lenders and signed the same in December 2011. After satisfaction of 254 Conditions Precedents (CPs) which included signing Concession Agreements and possession of land etc. within one year, the Company achieved Financial Closing on December 20, 2012. The Company negotiated and was successful in the arrangement and availability of financing of

USD 327 Million from the Lenders which along with USD 109 Million equity made available by the Sponsors, the financial resources to the tune of USD 436 Million, were ensured for the timely completion of the Project.

2.4.4 Delay in Achieving Commercial Operations Date

The achievement of COD for the Project was delayed due to the failure of NTDC to complete the Power Purchaser Interconnection Facilities (PPIF) according to the timelines agreed and prescribed in the PPA. The Required COD under the PPA was March 20, 2017. However, delay in the construction and operationalization of the PPIF within the prescribed timelines resulted in delay in the achievement of the COD by the Project which occurred and was notified on November 08, 2017 with a delay of 233 Days. This delay of 233 Days led to incurring of additional cost by the Company and its contractors. The details of incurred additional costs are given in Section 3 below.

A detailed table specifying the respective dates for the delay in activities caused by delay in the construction, completion and operationalization of PPIF and its consequent impact on the COD is provided below:

Milestones	Scheduled/Completion Date
Financial Close ("FC")	December 20, 2012
Notice to Proceed to EPC Contractor	December 26, 2012
Required Availability of PPIF as per PPA (120 days prior to SCOD)	October 29, 2016
SCOD as per PPA	February 26, 2017
RCOD as per PPA (51 months from FC)	March 20, 2017
Actual Availability of PPIF (with delay of 224 days)	June 10, 2017
Revised COD [Clause 6.5 of PPA – (RCOD + Delay Period) (20 Mar 2018 + 224 days)]	October 30, 2017
Delay due to non-availability of NTDC Independent Engineer (Multiconsult)	09 days
COD Achieved	November 08, 2017

SECTION 3: REQUEST FOR MODIFICATION OF CERTAIN COSTS APPROVED IN THE EPC REFERENCE TARIFF

The following modifications are requested in the relevant cost items of the EPC Reference Tariff

3.1 Advisory Costs:

	US Dollar ('000')
Reference Advisory Cost	7,346
Modified Advisory Cost	10,662
Increase in Advisory Cost	3,307

A cost of US\$ 10.65 million is hereby claimed as a legitimate Advisory Cost for the Project. Compared to such costs allowed by NEPRA Authority to Gulpur HPP, the Company's claim is on the lower side.

Project Name	Approval date by NEPRA	Installed Capacity in MW	Total Project Cost (USD in Million)	Approved Cost by NEPRA (USD in Million)	(Approved Cost/Total Project Cost)%
Gulpur HPP (EPC level)	28-Oct-15	102	317.63	15.727	4.95%
Patrind Hydro Power- (Modified Petition)		150	370.26	10.652	2.88%

The modified components of the Advisory Cost include the following.

3.1.1 Owner's Engineer and other Supervision services:

The Company has claimed cost of US\$ 6.584 million in respect of engineering and supervision services against the reference cost of US\$ 3.644 million. This includes the service rendered by M/s Pakistan Engineering Service, Fitchner Germany and the technical services provided by Company' Head office for design review, construction supervision, commissioning and testing supervision and review of related documents and activities, including witnessing of any factory acceptance tests which were the requirements prescribed in the PPA and in any case prescribed by and under Lenders requirements.

As a result of the Lenders' due diligence, the Lenders insisted that the construction supervision should be led by a Foreign Chief Resident Engineer (CRE) at site. Further, the Lenders also required to have the supervision of K-water's head office based technical support team through the Technical Service Agreement. Technical Service Agreement was made part of the Project Documents by the Lenders. As per the provisions of the Common Terms Agreement signed amongst the Company and the Lenders, these Project Documents cannot be revoked or cancelled without the consent of the Lenders and were thus a mandatory requirement.

In order to hire a foreign CRE, the Company signed an agreement with PES FZE, Dubai, UAE with the consent of Lenders through their Technical Advisor, which led to additional costs. Simultaneously, the Technical Service Agreement with K-water was kept alive during the construction phase incurring additional costs. Moreover, the delay of 233 days in the COD due to delay in the availability of PPIF by the NTDC also led to the extended work and scope of services for the Owner's Engineer. For the aforesaid reasons, the Company has incurred justifiable additional costs on account of the Owner's Engineer and other construction supervisory costs. It may be mentioned that the supervisory activities are essential keeping in view extensive civil works involved in the hydropower projects that have a material bearing on the design, construction, operation and maintenance of the Project.

The design review and certain site inspections and investigations have been conducted by foreign engineers, principally Europeans. Moreover, the CRE at site is also a foreign engineer requiring payments at international rates. Nonetheless, the cost claimed by the Company for this head is 2.27% of the EPC cost, which compared with that allowed to other hydropower projects is on the lower side on percentage basis.

Project Name	Approval date by NEPRA	Installed Capacity in MW	Total Project Cost (USD in Million)	Approved Cost by NEPRA (USD in Million)	(Approved Cost/Total Project Cost)%
Suki Kinari (EPC Level) – Review Petition	22-Jul-14	870	1301.15	33.383	2.57%
Karot HPP (EPC Level) – Review Petition	27-Apr-16	720	1277.78	29.2	2.29%
Gulpur HPP (FC level)	3-Aug-15	102	235.90	9.000	3.82%
Patrind Hydro Power- (Modified Petition)		150	289.78	6.583 (claimed)	2.27%

3.1.2 Financial Advisory Cost:

The Company has claimed cost of US\$ 1.452 million in respect of Financial Advisory services against the reference cost of US\$ 1.1 million and includes the service rendered by Crosby Asset Management, Habib Bank Limited and United Bank Limited in relation to the activities carried in relation to the Financing Documents and Financial Model Advisory.

The Project is the first under Power Policy 2002 that achieved FC on December 20, 2012 and comprises of hundred percent (100%) foreign direct investment. Keeping in view that Project is financed by the multilateral agencies and the complexity of the structure being physically located in two jurisdictions and comprising of four legal jurisdictions, a consortium of HBL and UBL, both very experienced in Project financing, were hired as Financial Advisor. Since the FC was delayed due to factors beyond the control of the Company from the original prescribed date of December 2011, there was additional work to be done by the financial consultants, resulting in additional costs beyond the expected costs of US\$ 1.1 Million.

3.1.3 Legal Advisory, Tax and Corporate Advisory:

The Company has claimed cost of US\$ 1.325 million against the reference cost of US\$ 1.05 million in respect of Legal Advisory, Tax and Corporate Advisory services received by the Company.

Financial allocation for Legal Advisors covers all pertinent charges and fees. Legal Advisors worked on all Project Documents including PPA, GOP IA with GOP, AJ&K IA with GOAJK, WUA with GOKP, WUA with GOAJK, Financing Documents, Direct Agreements to the Project Documents, Company's statutory filings, regulatory filings, legal opinions, advocacy, land acquisition and litigation, taxation and corporate matters, issues arising out of and in relation to the delay in the provision of PPIF etc.

3.2 Company Operation & Administration:

	US Dollar ('000')
Reference Company Operation & Administration Cost	6,580
Modified Company Operation & Administration Cost	9,200
Increase in Company Operation & Administration Cost	2,620

The administrative and operational cost was estimated up-to US\$ 6.58 million till COD. The management of SHPL strived hard to curtail this cost knowing the fact this cost has to be within reasonable limits.

Essentially due to delay in the Financial Closing for almost one year from the expected date i.e. December 2011, the administration costs reached USD 4 Million at the Financial Closing, which is USD 1.5 million more than the original catering.

Moreover, the delay of 233 days in COD from March 20, 2017 till November 08, 2017 also attracted the increase in these costs considerably. The claim of the Company is very reasonable compared to the costs allowed by the NEPRA Authority to other hydropower projects. In fact, since such costs do not vary strictly linearly with the size of the project, the claim by the Company is extremely moderate in comparison to other hydropower projects.

A comparison of administration costs with other IPPs is provided below:

Project Name	Approval date by NEPRA	Installed Capacity in MW	Total Project Cost (USD in Million)	Approved Cost by NEPRA (USD in Million)	(Approved Cost/Total Project Cost)%
Suki Kinari (EPC Level) – Review Petition	22-Jul-14	870	1711.43	37.437	2.19%
Karot HPP (EPC Level) – Review Petition	27-Apr-16	720	1698.26	44.736	2.63%
Gulpur HPP (EPC level)	28-Oct-15	102	317.63	10.2	3.21%
Patrind Hydro Power- (Modified Petition)		150	370.26	9.2 (claimed)	2.48%

3.3 Site Security Cost:

	US Dollar ('000')
Reference Site Security Cost	0.00
Modified Site Security Cost	1,000
Increase in Site Security Cost	1,000

A cost of US\$ 1 million in respect of Site Security is hereby claimed as a legitimate and wholly necessary cost for the Project for payment to the security forces, supported by documentation and other evidence.

The Company informed PPIB through its letter no. SHPL/Sec/116(1)/002 dated June 07, 2012 that the Police Department each in KP and AJ&K has been persistently asking to accept security cover from Police Departments and to pay cost of such cover to the departments. The Company had not contemplated such costs for construction phase or for operation phase to be paid to the Police Departments, and hence the same were not included in any tariff applications at the feasibility and or at the EPC levels.

The Company apprised PPIB, NEPRA, Police Departments and DG PPC through its letter no. SHPL/PPIB/1(6)/170 dated July 18, 2012 that it was never informed by PPIB or the GOAJK that such additional security cover from the Police department was mandatory but the said departments did not respond.

Based on the understanding that the Project location was safe and that the Company was required to make the security arrangements itself, no such costs for Police cover was included in the EPC Reference Tariff.

The Company was forced to sign Security Arrangement Agreements with the Police Departments of GOKP on November 13, 2011 and the GOAJK on April 01 2013 which caused additional costs to the Company.

We understand that the NEPRA Authority has allowed induction of security cost for the CPEC Projects in the power tariff to ensure security sustainability vide its decision dated August 03, 2017. The NEPRA Authority has allowed 1% capital cost of the Project as security cost in respect of each CPEC Project in accordance with the approved payment mechanism and the same is treated as a Pass-Through Item. This security cost is allowed for the construction and operation period. The lump sum security cost during the construction period is payable in arrears and is included in the capital cost of the project at the time of the commercial operations date. Moreover, such security cost during the operation period shall be part of the capacity charge.

3.4 Environmental & Social Cost:

	US Dollar ('000')
Reference Environmental & Social Cost	0.00
Modified Environmental & Social Cost	150.00
Increase in Environmental & Social Cost	150.00

A cost of US\$ 0.15 million in respect of environmental associated costs is hereby claimed as a legitimate, prudent and reasonable cost incurred for the Project. NEPRA Authority has allowed separate costs for the environmental and social compliances to other hydropower projects while the Company did not claim such costs in the EPC Reference Tariff. However, Lenders in line with their development and economic role demanded additional monitoring in relation to the environmental and social compliances, which led to additional costs for the Company.

A comparison of Company's Environmental & Social Cost with other IPPs is presented below.

Project Name	Approval date by NEPRA	Installed Capacity in MW	Total Project Cost (USD in Million)	Approved Cost by NEPRA (USD in Million)	(Approved Cost/Total Project Cost)%
Suld Kinari (EPC Level) – Review Petition	22-Jul-14	870	1711.43	9.247	0.54%
Karot HPP (EPC Level) – Review Petition	27-Apr-16	720	1698.26	12.3	0.72%
Gulpur HPP (EPC level)	28-Oct-15	102	317.63	1.61	0.51%
Patrind Hydro Power- (Modified Petition)		150	370.26	0.15 (claimed)	0.04%

The details of the activities are presented below.

3.4.1 External Monitoring under ESMP & RP

As required under Lenders' approved Environmental & Social Management Plan (ESMP) and Resettlement Plan (RP), for external monitoring, the Company has to retain qualified and experienced external expert/qualified NGOs to verify monitoring information.

To meet the above mentioned requirements, Company engaged an NGO named Refuge to act as External Monitor for Involuntary Resettlement and Environmental & Social (E&S) Safeguards. For the above discussed purposes, an agreement was executed with Refuge on October 22, 2012 as External Monitor for Involuntary Resettlement and later on its scope was extended to act as External Monitor for E&S Safeguards as well on the demand of the Lenders.

3.4.2 Labour and Occupational Health & Safety (OHS) Audits

As part of the monitoring of compliance of the national laws, financiers' standards/policies and international good practices apart from internal audits, two external audits were conducted during the construction phase. The Company engaged independent consultant (Khan & Khan Associates) to conduct a labour audit in order to assess compliance with core labour laws/standards on October 30, 2015.

In addition to above, the Company engaged independent consultant (Strategic Management Services) on November 08, 2016 to conduct an audit on occupational health & safety (OHS) in order to assess compliance with national laws, international standards/policies/good practices.

3.5 Variable and Fixed O&M Costs

During operation phase, all expenses for operation and maintenance of the Project, environmental and social activities, security of the Complex et al have to be borne out of the variable and fixed O&M costs allowed by the NEPRA Authority. In particular, the Company requests the attention of the following costs that the Company is required to incur which became apparent only after the signing of the Financing Documents.

- i. The Power Purchaser has asked the Company to procure a VSAT link with the NPCC for communication between the Complex and the NPCC. Establishment of such link requires procuring the services from the VSAT vendors for the entire concession term of the Project and payment for such services.
- ii. The Company has to ensure compliance with the Lenders requirements in relation to the environmental and social obligations, in particular regular monitoring of the river flora and fauna, adoption of mitigation measures and, running income restoration plans. The NEPRA Authority has accepted such costs as legitimate costs independent of O&M costs in other projects.
- iii. The Police Departments in both AJ&K and KP require the Company to retain police services for security purposes during operation phase. The costs of such services increase every year with increments and additional allowances allowed to the police personnel or due to the change in the policy of Police Departments.

The O&M Costs including Fixed O&M and Variable O&M claimed are USD 5.62 million per year which is just 1.52 % of the Modified Project Cost and is within the benchmark adopted by NEPRA Authority.

3.5.1 Variable O&M Costs

The Company request the variable O&M cost of 0.05 US cents/KWh which translates into 0.0425 PKR/KWh. The ratio of local and foreign Variable O&M costs shall remain the same as that in the EPC Reference Tariff.

Tariff Component	US cents/KWh
Reference Variable O&M	0.0294
Modified Variable O&M	0.0500
Increase in Variable O&M	0.0206

3.5.2 Fixed O&M Costs

The Company requests the following Fixed O&M costs. The ratio of local and foreign Fixed O&M costs shall remain the same as in the EPC Reference Tariff.

Tariff Component	US\$/Annum
Reference Fixed O&M	4,056,000
Modified Fixed O&M	5,300,000
Increase in Fixed O&M	1,244,000

SECTION 4: MODIFIED PROJECT COST & MODIFIED EPC REFERENCE TARIFF

Based on the above submissions, the Modified Project Cost and the Modified EPC Reference Tariff is presented in this Section.

4.1 Modified Project Cost:

The following table shows the Modified Project Cost against the heads mentioned in the EPC Reference Tariff and the above submissions.

Modified Project Cost:

Item	Amount (USD 000's)
Reference EPC Costs	289,775
Land Cost for Pond, Structure and Right of Way	700
Advisory Costs	10,662
Company Operation & Administration Cost - Until COD	9,200
NTDC Independent Engineer Fee	300
Permission and Approval Fee	200
O&M Mobilization Cost	750
Customs Duty	4,970
Taxes on Advisors	485
Construction Phase Insurance	7,369
Lender's Financing Fee	5,139
Lenders' Advisory Fees	1,800
L/C and Guarantee	103
Interest During Construction (IDC)	37,661
Security Cost	1,000
Environment & Social Cost	150
Total Project Cost	370,263

4.2 Comparison of Modified Project Cost with Reference Project Cost:

The following is the comparison of the Modified Project costs and the costs given in the EPC Reference Tariff:

Comparison of Modified and Reference Project Cost:

Item	Modified Project Cost	Reference Project Cost	Change in Project Cost	
			Amount (USD 000's)	Percentage %
Reference EPC Costs	289,775	289,775	0	0%
Land Cost for Pond, Structure and Right of Way	700	700	-	0%
Advisory Costs	10,662	7,346	3,316	45%
Company Operation & Administration Cost - Until COD	9,200	6,580	2,620	40%
NTDC Independent Engineer Fee	300	300	-	0%
Permission and Approval Fee	200	200	-	0%
O&M Mobilization Cost	750	750	-	0%
Customs Duty	4,970	4,970	-	0%
Taxes on Advisors	485	485	-	0%
Construction Phase Insurance	7,369	7,369	-	0%
Lender's Financing Fee	5,139	5,017	122	2%
Lenders' Advisory Fees	1,800	1,800	-	0%
L/C and Guarantee	103	103	-	0%
Interest During Construction (IDC)	37,661	36,997	664	2%
Security Cost	1,000	-	1,000	100%
Environment & Social Cost	150	-	150	100%
Total Project Cost	370,263	362,392	7,871	2%

4.3 EPC Reference Tariff:

The EPC Reference Tariff as stated in EPC Tariff Approval is as follows:

Item	Levelized Tariff (PKR/KWh)	Levelized Tariff (US Cents/KWh)
Variable Charge	0.1750	0.2059
Variable O&M	0.0250	0.0294
Water Use Charges	0.1500	0.1765
Fixed Charge	6.8746	8.0878
Fixed O&M	0.5450	0.6412
Insurance	0.3893	0.4580
Debt Service	3.0338	3.5692
ROE	2.1055	2.4771
ROEDC	0.8010	0.9424
Total Charge	7.0496	8.2936

4.4 Modified-EPC Reference Tariff:

The Modified EPC Reference Tariff based on the Modified Project Cost as requested in the Modification Petition is as follows (Details of the Modified EPC Reference Tariff with individual components is at Annex 1&2):

Item	Levelized Tariff (PKR/KWh)	Levelized Tariff (US Cents/KWh)
Variable Charge	0.1925	0.2265
Variable O&M	0.0425	0.0500
Water Use Charges	0.1500	0.1765
Fixed Charge	7.1674	8.4322
Fixed O&M	0.7121	0.8378
Insurance	0.3893	0.4580
Debt Service	3.0997	3.6467
ROE	2.1512	2.5309
ROEDC	0.8150	0.9589
Total Charge	7.3599	8.6587

4.5 Comparison of Modified EPC Reference Tariff and EPC Reference Tariff:

Item	Modified Levelized Tariff (PKR/KWh)	Reference Levelized Tariff (PKR/KWh)	Change in Levelized Tariff (PKR/KWh)	Change in Percentage	Modified Levelized Tariff (US Cents/KWh)	Reference Levelized Tariff (US Cents/KWh)	Change in Levelized Tariff (US Cents/KWh)	Change in Percentage
Variable Charge	0.1925	0.1730	0.0175		0.2265	0.2059	0.0206	
Variable O&M	0.0425	0.0250	0.0175	70%	0.0500	0.0294	0.0206	70%
Water Use Charges	0.1500	0.1500	0.0000	0%	0.1765	0.1765	0.0000	0%
Fixed Charge	7.1674	6.8746	0.2928		8.4322	8.0878	0.3445	
Fixed O&M	0.7121	0.5450	0.1671	31%	0.8378	0.6412	0.1966	31%
Insurance	0.3893	0.3893	0.0000	0%	0.4580	0.4580	0.0000	0%
Debt Service	3.0997	3.0338	0.0659	2%	3.6467	3.5692	0.0775	2%
ROE	2.1512	2.1055	0.0457	2%	2.5309	2.4771	0.0538	2%
ROEDC	0.8150	0.8010	0.0140	2%	0.9589	0.9424	0.0165	2%
Total/Change	7.3599	7.0496	0.3103		8.6387	8.2936	0.3450	

4.6 Modified EPC Reference Tariff:

The modifications proposed in the EPC Reference Tariff are explained below:

4.6.1 Variable O&M

The Company has requested the variable O&M cost of 0.05 US cents /KWh which translate to 0.0425 PKR/KWh.

Tariff Component	
Variable O&M (US cents/kWh)	0.0425
Variable O&M (PKR/kWh)	0.0500

4.6.2 Fixed O&M

The Company has requested fixed O&M cost of US\$ 5.3 million per annum. This translates to 0.8378 US cents/kWh and correspondingly 0.7121 PKR/kWh, against historical average annual energy of 632,628MWh.

Tariff Component	
Fixed O&M/Year (USD, 000)	5,300
Fixed O&M (US cents/kWh)	0.8378
Fixed O&M (PKR/kWh)	0.7121

4.6.3 Return on Equity (ROE)

The Debt-Equity ratio for the funding of the Modified Project Cost has been kept and retained at 75:25 as per the approved assumptions in the Reference EPC Tariff and consequently the Equity Investment is locked at USD 92,566, being the 25% of the Modified Project Cost of US\$ 370,263 Million. The Project Company has assumed 17% Internal Rate of Return per Annum. Furthermore, as per revised provisions of the Power Policy 2002, ROE is allowed in US dollars at reference rate. The reference rate applied is PKR 85 per US dollar. The levelized ROE based on the Modified Project Cost is 2.5309 US cents/kWh and in local currency it translates in 2.1512 PKR/kWh, against historical average annual energy of 632,628MWh.

Tariff Component	
Total Equity Investment (USD 000's)	92,566
ROE for 1-12 Years (US¢/KWh)	2.4874
ROE for 1-12 Years (PKR/kWh)	2.1143
ROE for 13-30 Years (US¢/KWh)	2.6441
ROE for 13-30 Years (PKR/kWh)	2.2475

After repayment of debt during the initial 12 years starting from the COD, equity shall be redeemed over the remaining concession term of 18 years.

4.6.4 Return on Equity During Construction (ROEDC)

Return on Equity During Construction (ROEDC), calculated on the basis of Modified Project Cost is USD 35,361 million with tariff component of 0.9589 US cents/kWh and 0.8150 PKR/kWh, given the historical average annual energy of 632,628MWh:

Tariff Component	
Total Return on Equity During Construction (USD 000's)	35,361
ROEDC (US¢/KWh)	0.9589
ROEDC (PKR/kWh)	0.8150

4.6.5 Debt Service

The Debt-Equity ratio for the funding of the Modified Project Cost has been kept and retained at 75:25 as per the approved assumptions in the Reference EPC Tariff and consequently the Debt Service component is locked at USD 277,698Million, being the 75% of the Modified Project Cost of US\$ 370,263Million. The following financing agencies are involved with given project financing structure:

Item	Amount (USD 000's)	% of Project Cost
Debt		
KEXIM	102,172	28%
ADB	92,566	25%
IDB & IFC	82,960	22%
Local Commercial Bank Loan	-	0%
Total Debt	277,698	75%

Total debt service component currently stands at 5.0453 cents/kWh (4.2885 PKR/kWh) which covers both principal and interest components at varying rate over 12 years' debt servicing period. The tariff component of levelized debt service is 3.6467 US cents/kWh and 3.0997 PKR/kWh, against historical average annual energy of 632,628MWh (Annex – 3).

Year	Principal - FCY (US Cents/KWh)	Interest - FCY (US Cents/KWh)	Total - FCY (US Cents/KWh)	Principal - LCY (US Cents/KWh)	Interest - LCY (US Cents/KWh)	Total - LCY (US Cents/KWh)	Total Repayments (US Cents/KWh)
1	2.6672	2.3781	5.0453	-	-	-	5.0453
2	2.8159	2.2294	5.0453	-	-	-	5.0453
3	2.9729	2.0724	5.0453	-	-	-	5.0453
4	3.1386	1.9066	5.0453	-	-	-	5.0453
5	3.3136	1.7316	5.0453	-	-	-	5.0453
6	3.4984	1.5469	5.0453	-	-	-	5.0453
7	3.6935	1.3518	5.0453	-	-	-	5.0453
8	3.8994	1.1459	5.0453	-	-	-	5.0453
9	4.1168	0.9285	5.0453	-	-	-	5.0453
10	4.3463	0.6989	5.0453	-	-	-	5.0453
11	4.5887	0.4566	5.0453	-	-	-	5.0453
12	4.8445	0.2007	5.0453	-	-	-	5.0453

4.7 Rates, Terms and Conditions of the EPC Reference Tariff

That the remaining rates, terms and conditions of the EPC Reference Tariff and reference indices, other than prayed to be modified through the instant Petition, shall continue to be the same with full force and effect without any modification or amendment.

ANNEXURES

ANNEX-1

SHPL - Modified EPC Level Proposed Two Part Tariff (PKR)

Year	Reference Energy Price (Rs/kWh)			Reference Capacity Price (Rs/kW/Month)							
	Variable O&M	Water Use Charges	Total Variable Charge	Fixed O&M - Foreign	Fixed O&M - Local	Insurance	ROE	ROEDC	Principal - Foreign	Interest - Foreign	Total Capacity Charges
1	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	758.2632	292.2961	813.0555	724.9334	2,983.5646
2	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	758.2632	292.2961	858.3883	679.6005	2,983.5644
3	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	758.2632	292.2961	906.2487	631.7400	2,983.5643
4	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	758.2632	292.2961	956.7781	581.2110	2,983.5647
5	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	758.2632	292.2961	1,010.1241	527.8646	2,983.5644
6	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	758.2632	292.2961	1,066.4451	471.5439	2,983.5646
7	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	758.2632	292.2961	1,125.9059	412.0829	2,983.5644
8	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	758.2632	292.2961	1,188.6820	349.3066	2,983.5643
9	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	758.2632	292.2961	1,254.9588	283.0302	2,983.5647
10	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	758.2632	292.2961	1,324.9299	213.0584	2,983.5639
11	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	758.2632	292.2961	1,398.8037	139.1852	2,983.5646
12	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	758.2632	292.2961	1,476.7950	61.1932	2,983.5639
13	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
14	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
15	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
16	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
17	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
18	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
19	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
20	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
21	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
22	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
23	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
24	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
25	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
26	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
27	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
28	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
29	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
30	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	806.0160	292.2961	-	-	1,493.3284
Levelized Tariff (1 - 30 years)	0.0425	0.1500	0.1925	153.2313	102.1542	139.6308	771.5007	292.2961	758.2837	353.3612	2,570.4580
Levelized Tariff Rs/kWh	7.3598										

ANNEX -2

SHPL - Modified EPC Level Proposed Two Part Tariff [US\$]

Year	Reference Energy Price (US c/kWh)			Reference Capacity Price (US c/kW/Month)							
	Variable O&M	Water Use Charges	Total Variable Charge	Fixed O&M Foreign	Fixed O&M Local	Insurance	ROE	ROEDC	Principal Foreign	Interest Foreign	Total Capacity Charges
1	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	892.0744	343.8778	956.5359	852.8629	3510.0760
2	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	892.0744	343.8778	1,009.8685	799.5300	3510.0758
3	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	892.0744	343.8778	1,066.1749	743.2235	3510.0757
4	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	892.0744	343.8778	1,125.6213	683.7776	3510.0761
5	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	892.0744	343.8778	1,188.3813	621.0172	3510.0758
6	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	892.0744	343.8778	1,254.6413	554.7575	3510.0760
7	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	892.0744	343.8778	1,324.5951	484.8035	3510.0758
8	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	892.0744	343.8778	1,398.4494	410.9490	3510.0756
9	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	892.0744	343.8778	1,476.4222	337.9767	3510.0761
10	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	892.0744	343.8778	1,558.7410	250.6569	3510.0752
11	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	892.0744	343.8778	1,645.6514	163.7473	3510.0760
12	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	892.0744	343.8778	1,737.4059	71.9920	3510.0751
13	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
14	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
15	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
16	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
17	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
18	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
19	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
20	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
21	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
22	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
23	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
24	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
25	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
26	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
27	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
28	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
29	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
30	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	948.2541	343.8778	-	-	1,756.8569
Levelled Tariff (1 - 30 years)	0.0500	0.1765	0.2265	180.2721	120.1814	164.2715	907.6479	343.8778	892.0985	415.7191	3,024.0683
Levelled Tariff US c/kWh	8.6587										

ANNEX -3

Debt Repayment Schedule

Period	Opening	Repayment	Interest	Closing	Tariff Component		Sum
					Principal (US c/kWh)	Interest (US c/kWh)	
1	277,697	8,322	7,637	269,375	1.3155	1.2071	2.5226
2	269,375	8,551	7,408	260,824	1.3517	1.1710	2.5226
3	260,824	8,786	7,173	252,038	1.3888	1.1338	2.5226
4	252,038	9,028	6,931	243,010	1.4270	1.0956	2.5226
5	243,010	9,276	6,683	233,734	1.4663	1.0564	2.5226
6	233,734	9,531	6,428	224,203	1.5066	1.0160	2.5226
7	224,203	9,793	6,166	214,409	1.5480	0.9746	2.5226
8	214,409	10,063	5,896	204,347	1.5906	0.9320	2.5226
9	204,347	10,339	5,620	194,007	1.6343	0.8883	2.5226
10	194,007	10,624	5,335	183,384	1.6793	0.8433	2.5226
11	183,384	10,916	5,043	172,468	1.7255	0.7972	2.5226
12	172,468	11,216	4,743	161,252	1.7729	0.7497	2.5226
13	161,252	11,524	4,434	149,727	1.8217	0.7010	2.5226
14	149,727	11,841	4,118	137,886	1.8718	0.6509	2.5226
15	137,886	12,167	3,792	125,719	1.9233	0.5994	2.5226
16	125,719	12,502	3,457	113,217	1.9761	0.5465	2.5226
17	113,217	12,845	3,113	100,372	2.0305	0.4922	2.5226
18	100,372	13,199	2,760	87,173	2.0863	0.4363	2.5226
19	87,173	13,562	2,397	73,612	2.1437	0.3789	2.5226
20	73,612	13,935	2,024	59,677	2.2026	0.3200	2.5226
21	59,677	14,318	1,641	45,359	2.2632	0.2594	2.5226
22	45,359	14,712	1,247	30,648	2.3255	0.1972	2.5226
23	30,648	15,116	843	15,532	2.3894	0.1332	2.5226
24	15,532	15,532	427	-	2.4551	0.0675	2.5226

ANNEX-B