



OFFICE OF CHIEF TECHNICAL OFFICER

No. Tech/DGMT-II/MT-IV/Riali-II/ 7084-85

Date: 22.03.2018

D.O. DR-I

26/03/18

WITHOUT PREJUDICE

cc:  
 - Chairman  
 - NEPRA (MIE)  
 - MCT  
 - M (LIC/CA)

The Registrar,  
 NEPRA,  
 NEPRA Tower, Ataturk Avenue (East)  
 G-5/1, Islamabad.

Copy to

- SA (T-I)

- SA (Tech)

- LA (CIP)

- Cons (Hydro)

- m

Sub: Submission of Tariff Proposal in respect of M/s Riali-II Hydro Power Project in AJ&K.

- Ref: (i) CPPA letter No. CTO/CPPA (G)/DGM-V/35261-62 dated 06.10.2017.  
 (ii) CPPA Letter No. CTO(CPPA-G)/DGM-V/35430-32 dated 10.10.2017  
 (iii) CPPA Letter No. CTO(CPPA-G)/DGM-V/32150-51 dated 28.08.2017  
 (iv) NEPRA's letter No. NEPRA /LA(Leg)/NRG-19/14396 dated 22.08.2017  
 (v) CPPA Letter No. CEO/CPPA-G/30665-68 dated 09.08.2017  
 (vi) CPPA Letter No. CEO/CPPA-G/28783-86 dated 21.07.2017  
 (vii) NEPRA's letter No. NEPRA /LA(KIP)/NRG-19/10609 dated 23.06.2017

The Tariff Proposal submitted by the seller is being forwarded by CPPA to the Authority stipulating the status of compliance by the seller with respect to the documents required under Regulation 3(1) of the National Electric Power Regulatory Authority (Import of Power) Regulations, 2017 (the "Import Regulations").

Accordingly, please find attached herewith the requisite table, specifying therein the shortcomings in the Tariff Proposal submitted by M/s Riali-II Hydro Power Project for onwards submission to the Authority for review, consideration and further necessary action as per the applicable regulatory framework. It is specified that the details required in Regulation 3 of the Import Regulations has been formulated in tabulated form which is hereby attached with as **Annexure A**.

It is pertinent to mention here that as per the Import Regulations and the clarification rendered by the Authority vide letter dated 22-08-2017, it is the responsibility of the seller to arrange the requisite documents and verify the correctness, fairness and validity of any information contained and request made in the same.

In view of above, the Tariff Proposal is being forwarded to the Authority subject to reservations specified in the **Annexure A** and qualifications specified above as well as submissions made in letter mentioned above. Further, CPPA-G reserves its rights to raise any comments/objections, merits/demerits in any proposal subsequently during the course of application of this Tariff Proposal. CPPA also reserves right of hearing for subject tariff proposal.

(SYED IQBAL MEHDI)

Chief Technical Officer, CPPA-G

Copy to:






- Chief Executive Officer, CPPA-G Islamabad.
- Master File.

Registered	2995
Dy No.	26-03-18
Dated	26-03-18



## Riali Hydro-II -Small Hydro Power Project (Annex-A)

Details information's/documents submitted by Riali Hydro Power Company Private Limited along with its Tariff Proposal under Regulation 3 of Import Regulation is as follows:

Sr.No.	Details required for Tariff Proposal	Available	Not Available	Remarks
a	Name and address of the applicant;			CPPA is forwarding the Tariff Proposal as per the Import Regulations, subject to reservations and qualifications set forth herein and the attached letter.
b	Authorization from the competent authority to file application along with affidavit as to the correctness of the information.			CPPA-G cannot and does not confirm the correctness of information as provided by the project company. Further the Board Resolution and Affidavit, as provided by the project company, are attached herewith at (Annex-B).
c	Demand that is going to met through the proposed Import of power.			It is the responsibility of NTDCL and the concerned Disco to provide the detail regarding the demand that is going to be met through the proposed Import of Power.  Moreover it is highlighted that : 1. CPPA-G had given conditional consent (Annex-C), which company has now accepted through their letter dated 17.03.2018. (Annex-C1).
d	Detail of Seller including but not limited to name, address, description of generation facilities etc.			Detail of Seller is attached as (Annex-D)
e	Comprehensive Tariff Proposal including proposed rates of Import of Power.			Tariff Proposal is attached (Annex-E), along with Sellers letters dated 17.03.2018 (Annex-C1). Authority to consider applicability and availability of same to the Seller in light of legal, regulatory and policy framework. To the extent of extension of upfront tariff the matter is <i>sub judice</i> in WP No. 655/2018 wherein the Honourable Islamabad High Court has passed order dated 21.02.2018 (Annex-E1).

# Riali Hydro-II -Small Hydro Power Project (Annex-A)

f	Source of Power Generation, where applicable.			This information is in the context of nature of fuel, which in the instant case is Hydel.
g	Capacity and/ or the estimated annual energy to be imported.			Installed Capacity 7.08 MW (gross), 7.01 MW (net) and Annual Energy will be subject to actual Hydrology. However, the company estimated the annual Energy as 37,740,000 kWh (Annex-F)
h	Feasibility study of the project, if applicable.			Project company has submitted the approval of Feasibility study by AJ &K (PPC) (Annex-G)
i	Proposed interconnection arrangement with approximate distance.			Interconnection Approval Letter from GM Planning NTDCL has been attached (Annex-H) and PESCO approval is also attached. (Annex-I)
j	Augmentation required in existing transmission network and/ or the grid, if any;			As provided by the Project Company (Annex-I-1)
k	Estimated costs of the interconnection arrangement and the augmentation required in the transmission network			As provided by the Project Company (Annex-I-1)
l	The technology, indicating primary fuel, alternate primary fuel and back up fuel. Where applicable;			Hydel
m	Undertaking from Seller to comply with grid code, distribution code and other applicable documents;			Undertaking Provided by the Company attached (Annex-J)
n	The expected commercial operations date;			October, 2020 (Annex-F)
o	The expected duration of Import of Power;			30 Year
p	The adequacy of the transmission system of the national grid company or Distribution Company, as the case may be, to import the electric power;			Not available
q	The summary of evidence giving brief particulars of the data, facts and evidence in support of the application; and			Authority to consider documents attached with the Tariff Proposal. Company would bear Hydrological Risk.
r	Any other information in such format as may be required by the Authority from time to time.			Authority to consider and direct additional information as may be required.



RHP CO

# Riali Hydro Power Company (Pvt.) Ltd

## BOARD RESOLUTION

F/A-4

At a meeting of the Board of Directors of Riali Hydro Power Company (Pvt.) Ltd (RHPCO) held at Islamabad on the 29<sup>th</sup> day of November, 2016 the following resolutions were passed:

The documents, that Mr. Abdul Karim Qureshi S/O Mr. Ghulam Rasool Qureshi (Chief Executive) bearing CNIC # 61101-2023916-5 is hereby authorized on behalf of the Company to nominate any representative of (RHPCO), to deal and sign, with all related Government departments and Autonomous bodies i.e (National Electric Power Regulatory Authority (NEPRA)) (Central Power Purchasing Agency (Guarantee) Limited (CPPA (G)) (Private Power and Infrastructure Board (PIB)) (Peshawar Electric Supply Company (PESCO)) (National Transmission and Despatch Company Limited (NTDCL) (Private Power Cell (PPC) (GOAJK)) (Senior Member Board of Revenue (SMBR) Office (GOAJ&K) and Kashmir Council (GOAJ&K))

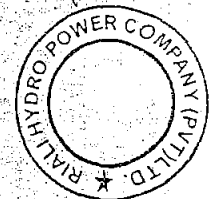
We certify that the above resolutions have been duly entered in the minute's book and signed therein by the Chairman of the meeting and are in accordance with the Articles of Association of the Company and that the Company is a Private limited company.

Date: 29<sup>th</sup> November, 2016

	Names	Designation	Signatures
1.	Mr. Abdul Karim Qureshi	Chief Executive	
2.	Mr. Ahmed Ali Qureshi	Director	
3.	Syed Ali Gardezi	Director	

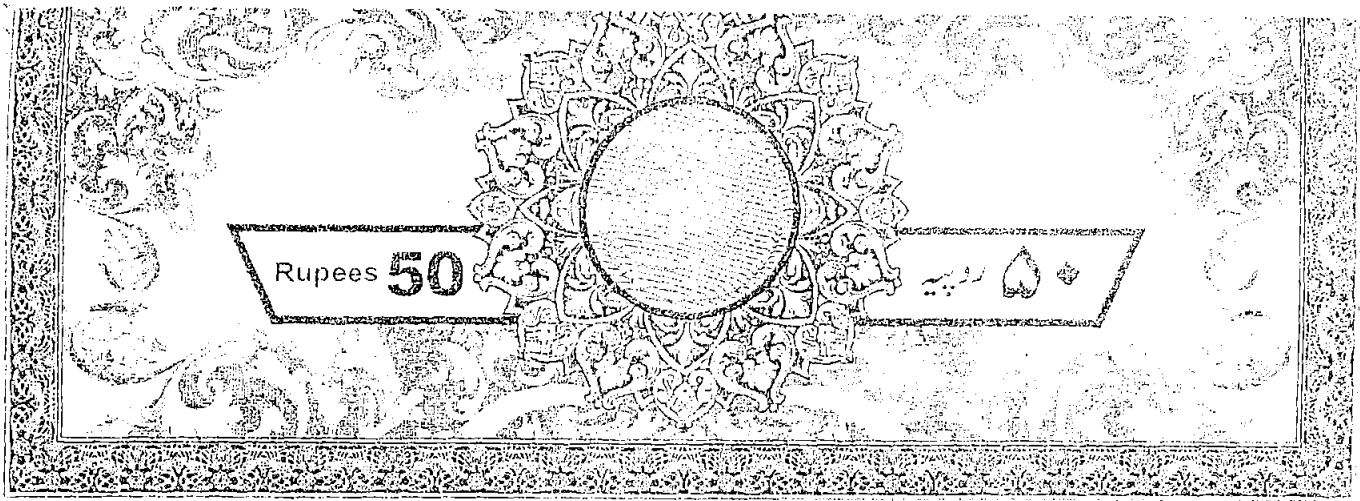
SHAHID MAJEED  
Company Secretary

SHAHID MAJEED  
Company Secretary



"Our focus is on Small Hydro Power Development"

Head Office: 59-E, Street-7, Sector I-10/3, Islamabad, Tel: (+92-51) 4446873-74, 4436004  
Fax: (+92-51) 4431774, Email: [rialihydro@hotmail.com](mailto:rialihydro@hotmail.com), Website: [www.rialihydro.com](http://www.rialihydro.com)



F/AA

## Power of Attorney

KNOW BY ALL MEAN THAT by this Power of Attorney ("Power of Attorney"), M/s Riali Hydro Power Company (Pvt.) Ltd having its registered office at Plot # 59-E, St # 7, Sector I-10/3, Islamabad do hereby nominate, appoint and authorize Mr. Syed Mahmood Hussain Gardezi S/o Syed Luqman Hussain Shah R/o Poonch House, Main Simli Dam Road, Bhara Kahu, Islamabad, hereinafter referred to as the "Attorney" to deal with all government departments (autonomous bodies) i.e. (Office of the Senior Member of Revenue Board (GOAJ&K)), (NEPRA), (PPIB), (NTDCL), (Kashmir Council (GOAJ&K)), (PPC), for the specific purpose to deal, negotiate, sign all the necessary documents on behalf of M/s Riali Hydro Power Company (Pvt.) Ltd.

M/s Riali Hydro Power Company (Pvt.) Ltd do hereby ratify and confirm whatever the Attorney shall do by virtue of these presents.

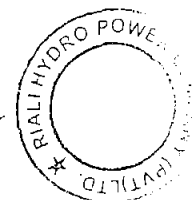
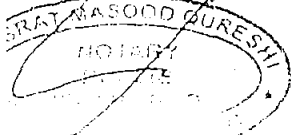
Dated: 29<sup>th</sup> November, 2016

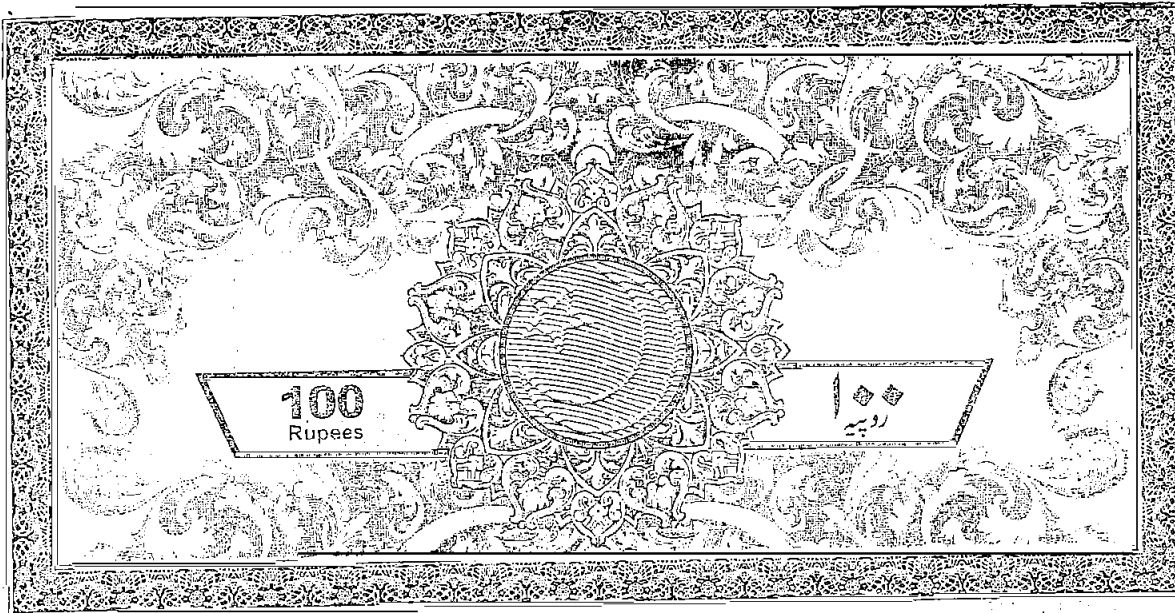
Name of the Grantor: Abdul Karim Qureshi  
Designation: Chief Executive  
National ID card No: 61101-2023916-5

(Syed Mahmood Hussain Gardezi)

CNIC # 61101-3473746-1

ATTESTED Specimen Signature of Authorized Attorney)





F/A-5

## SCHEDULE-II

[Regulation 3(b) of Import of Power Regulations 2017]

BEFORE THE NATIONAL ELECTRIC POWER REGULATORY AUTHORITY

AFFIDAVIT

I, Syed M. Hussain Gardezi S/o Syed Luqman Hussain Shah CNIC No. 61101-3473746-1, Director (Development), M/s Riali Hydro Power Company (Pvt.) Ltd hereby solemnly affirm and declare on oath that the contents of the accompanying application (including upfront tariff application) and tariff proposal including all attached documents-in-support are true and correct to the best of my knowledge and belief and that nothing has been concealed.

DEPONENT



Signature: \_\_\_\_\_

Name: Syed M. Hussain GardeziDated: March 19, 2018

ATTESTED



# Central Power Purchasing Agency (Guarantee) Limited

A Company of Government of Pakistan



OFFICE OF CHIEF EXECUTIVE OFFICER

No. CPPAGL/2017/CEO/RHPCO/8239-45

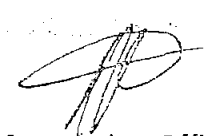
Date: 26-05-17

F/I-I

The Registrar  
NEPRA, NEPRA Office Building  
G-5/1, Attaturk Avenue (East), Islamabad

Subject: Consent of Purchase of Power in Respect of  
7.08 MW Riali-II Small Hydropower Project, District Muzaffarabad, AJK

1. Pursuant to NEPRA's Upfront Tariff (Approval and Procedure) Regulations, 2011 'Consent of Purchase Power' is hereby issued in respect of 7.08 MW Riali-II Hydropower Project at Ghoriwalla Katha, Muzaffarabad AJK.
2. Issuance of Consent to Purchase Power is subsequent to fulfilment of all requirements under 'Guidelines/SOP for Power Procurement by CPPA-G under NEPRA Renewable Energy Companies Guidelines, 2015' issued by CPPA-G vide No. CPPA-G/CS/2016/1965 dated 31-05-2016: and subject to the following conditions:
  - i) Back to back agreement between CPPA-G and relevant DISCOs for the evacuation of Power;
  - ii) Approval of Grid Interconnection Study by the relevant DISCOs and NTDC;
  - iii) Completion of other codal formalities as per applicable Policies, laws, Rules and Regulations;
  - iv) CPPA-G will procure Power, on behalf of relevant DISCOs, from the project companies on Take and Pay basis;
  - v) Based on the above necessary changes will be made in the EPA
3. This is issued with approval of Board of Directors, Central Power Purchasing Agency (Guarantee) Limited given under Board Resolution No. VII/27 presented on 25<sup>th</sup> May 2017 and notified by Company Secretary vide No. CPPA-G/2017/CS/1021-24 dated 25<sup>th</sup> May 2017.

  
Chief Executive Officer

Copy to:

1. Chief Executive Officer, PESCO, Sakhi Chasma, Shami Road Peshawar.
2. Managing Director, PPIB, Emigration Tower, G-8/1 Islamabad.
3. Chief Technical Officer, CPPA-G, Islamabad.
4. Director General, Private Power Cell, Upper Chatter, Muzaffarabad AJK.
5. Company Secretary, CPPA-G, Islamabad.
6. M/s Riali Hydro Power Company (Pvt) Limited, 59-E, Street 7, I-10/3 Islamabad.
- Master File.

S/F

G<sup>nd</sup> Floor ENERCON Building, G-5/2 Islamabad

+92-51-9216962 +92-51-6203949 dgmtch-II@cpa.gov.pk

E:\Sod CPPAGL PAR\AIO PAR Riali II SHPP\Consent Letter To NEPRA.Docx





# Riali Hydro Power Company (Pvt.) Ltd

Annexure - III

F/I-2

Date: March 17, 2018

The Registrar  
National Electric Power Regulatory Authority  
Islamabad.

Subject: Certifications in respect of application opting for upfront tariff for small hydropower generation

I, Syed M. Hussain Gardezi, Director (Development), being the duly Authorized representative of Riali Hydro Power Company (Pvt.) Ltd by virtue of Board Resolution / Power of Attorney dated 29-11-2016, hereby confirm that for our project of 7.08 MW installed capacity to be located at Ghoriwala Katha, District Muzaffarabad, Azad Jammu & Kashmir.

1. All the plant and machinery to be installed will be brand new.
2. Riali Hydro Power Company (Pvt.) Ltd will bear the hydrological risk.
3. The above mentioned is a green field hydro power project, Riali Hydro Power Company (Pvt.) Ltd has not availed any soft loan for the aforesaid project. In case any soft loan becomes available to Riali Hydro Power Company (Pvt.) Ltd, we will intimate the Authority, within 10 days of such event and will not claim the upfront tariff granted to us.
4. The annual plant factor of the aforementioned project, as certified by the panel of experts, is not based on the detailed design report.
5. We have not already executed a power purchase agreement with the power purchaser for the aforementioned project or have achieved financial close for the aforementioned project.
6. Riali Hydro Power Company (Pvt.) Ltd may be granted upfront tariff based on the following loan structure:

	%
Foreign loan:	0
Local loan:	100

Total: 100

Date: 17<sup>th</sup> March, 2018



Company Seal

Signature:

Name: Syed M. Hussain Gardezi

Designation: Director (Development)

**"First Small Hydro Power Project in Private Sector"**

## SCHEDULE-IV

F/I-3

[Regulation 4(3) (x)]

### Hydropower Generation Facility – Information

#### Summary \*\*\*

1. Name of Applicant : Riali Hydro Power Company (Pvt.) Ltd
2. Registered Office : 59-E, Street 7, I-10/3, Islamabad.
3. Business Office : 59-E, Street 7, I-10/3, Islamabad.
4. Project Location : Ghoriwala Katha (Riali), 17 KM Upstream from Muzafarabad.
5. Plant Details (Optional) :
  - a. Manufacturer : Zhejiang Jinlun Electromechanic Co., Ltd
  - b. Make & Model : Brand "JinLun", type CJJ475-W-115/2\*10.
  - c. Plant Capacity (MW): 7.08MW
  - d. Technology :

#### 1) IEC 60041 Ed.3: 1991

Field acceptance tests to determine the hydraulic performance of hydraulic turbines, storage pumps and pump-turbines

#### 2) IEC 60609-1: 2004

Hydraulic turbines, storage pumps and pump-turbines - Cavitation pitting evaluation - Part 1: Evaluation in reaction turbines, storage pumps and pump-turbines

#### 3) IEC 60609-2: 1997

Cavitation pitting evaluation in hydraulic turbines, storage pumps and pump-turbines

#### 4) IEC 62097:2009 Ed1.0

Hydraulic machines, radial and axial - Performance conversion method from model to prototype

#### 5) IEC 60545: 1976

Guide for commissioning, operation and maintenance of hydraulic turbines

#### 6) GB/T15468-2006

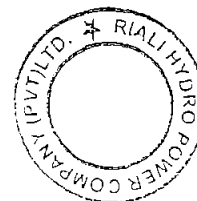
Fundamental technical requirements for hydraulic turbine

#### 7) GB/T7894-2001

Fundamental technical requirements for hydraulic turbine-generator

#### 8) GB/T14478-93

Fundamental technical requirements for large and medium inlet valves of hydraulic turbine



9) GB11805-99

Basic technical requirements for automatic control components and their related systems for large and medium hydrogenerating sets

10) DL/T507-2003

Start-up test code for hydraulic-turbine and generator unit

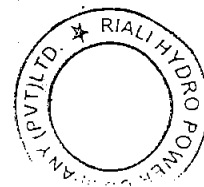
- e. Unit Size (MW) : 3.54
- f. Number of Units : 2

6. Reference Site Conditions (Optional) :

- a. Design Net Head m : 304.55
- b. Net rated discharge m<sup>3</sup>/sec : 2.8
- c. Gross annual electrical out MW : -----
- d. Auxiliary Consumption MW : -----
- e. Net annual energy production Gwh : 37.74 Gwh
- f. Net annual plant capacity factor : 61%

7. Expected Date of Financial Close : October, 2017

8. Expected date of Commercial Operation (COD) : October, 2020



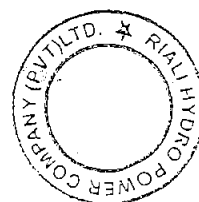
F-1-7

**INFORMATION ABOUT GENERATION CAPACITY UNDER PROPOSED  
PROCUREMENT REQUEST M/S RIALI HYDRO POWER COMPANY  
PRIVATE LIMITED**

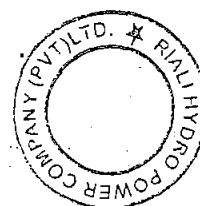
Description	Generator 1	Generator 2
Capacity MW (Gross)	3.54	3.54
Technology	High head, low discharge Pelton Turbines	
Fuel	-	
Weather forms part of least cost plan	A hydro power plant that replaces a thermal plant forms part of least cost generation plan	
Availability of Power	7.08 MW	
Year of Commissioning	Tentative: October, 2020	
Location	Ghoriwalla Nullah, District Muzaffarabad, Azad Jammu & Kashmir	
Proposed Grid for interconnection Approximate distance	Muzaffarabad (Old) Grid Station, 11/132kV, approximately 17 kms away from proposed power plant	
Augmentation required in Grid	33 kV incoming bay to be rehabilitated / inserted	
Augmentation required in transmission network	33 kV line to be rehabilitated / constructed	
Estimated cost if augmentation required in transmission network	Rs. 192 million [33kV Double Circuit Transmission Line & works at grid station]	
Steps taken or required for transmission augmentation	33 kV overhead transmission line is non-operative. This line shall be rehabilitated and restored for evacuation of power from proposed plant and adjacent forthcoming plants to Muzaffarabad (Old) grid station. PESCO, NTDC had already accepted this proposal.	
Any other information	The power station shall add valuable hydro energy to the grid from renewable sources. It shall save fuel amounting to Rs. 700 million annually if an equal thermal plant is operated.	

SUMMARIZE: Total capacity proposed to be procured over the period (MW):

Year 1: 7.01MW  
Year 2: 7.01MW  
Year 3: 7.01MW  
Year 4: 7.01MW



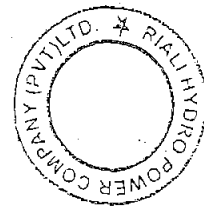
- Primary Fuel nil
- Energy Source Renewable hydro sources
- Impact Power Procurement would lower the overall price of energy of the power mix being supplied to consumers.
- Voltage level 33 kV
- Name of the Grid Station 132/11 KV Muzaffarabad, Azad Jammu & Kashmir
- Load Flow Analysis Interconnection Study (Section 5) give details of load flow analysis is attached.



Name and Address of the Applicant

F/I

1. Name of Applicant : Riali Hydro Power Company (Pvt.) Ltd
2. Registered Office : 59-E, Street 7, I-10/3, Islamabad.
3. Business Office : 59-E, Street 7, I-10/3, Islamabad.
4. Project Location : Ghoriwala Katha (Riali), 17 KM Upstream from Muzafarabad.





RHPKO

# Riali Hydro Power Company (Pvt.) Ltd

Ref No: RHPKO/CPPA/2017/109

Dated: 15<sup>th</sup> December, 2017

Chief Executive Officer  
Central Power Purchasing Agency Limited (CPPA (G))  
1<sup>st</sup> Floor, ENERCON Building,  
Sector G-5/2, Islamabad

**SUBJECT: SUBMISSION OF POWER ACQUISITION REQUEST (PAR) AND  
UPFRONT TARIFF APPLICATION ON BEHALF OF RIALI - II  
HYDRO POWER PROJECT (7.08 MW)**

[1] Ref: RHPKO/CPPA/UFT/2017/076; dated 26<sup>th</sup> August, 2017

Dear Sir,

Your kind attention is requested to our above referred letter to CPA-G, dated: 26<sup>th</sup> August, 2017 regarding the issuance of CPA-G consent for power purchase from subject mentioned project, and to forward our PAR and Upfront Tariff Application to NEPRA (copy attached). All the required documents with respect to PAR and Upfront Tariff Application were submitted to CPA (G) along with the above referred letter.

Moreover, CPA (G) has issued their consent to purchase power from the aforesaid project on 26<sup>th</sup> May, 2017 (copy attached).

Submissions:

In light of the aforesaid, it is submitted:

- a. That CPA-G may forward our PAR and Upfront Tariff Application to NEPRA for further due-diligence and process by the authority.

We are looking forward to a positive response; meanwhile we remain at your services.

(Syed M. Hussain Gardezi)  
Director (Development)

Cc:

- The Registrar (NEPRA), NEPRA Tower, Attaturk Avenue (East), G-5/1, Islamabad.
- Office Copy

*"First Small Hydro Power Project in Private Sector"*

Head Office: 59-E, Street - 7, Sector I-10/3, Islamabad. Tel: (+92-51) 4446873-74, 4436004  
Fax: (+92-51) 4431774, Email: [rialihydro27@hotmail.com](mailto:rialihydro27@hotmail.com), Website: [www.rialihydro.com](http://www.rialihydro.com)



# Riali Hydro Power Company (Pvt.) Ltd

Annexure - III

F/A-11

Date: March 17, 2018

The Registrar  
National Electric Power Regulatory Authority  
Islamabad.

Subject: Certifications in respect of application opting for upfront tariff for small hydropower generation

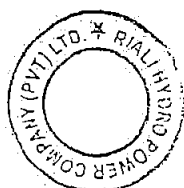
I, Syed M. Hussain Gardezi, Director (Development), being the duly Authorized representative of Riali Hydro Power Company (Pvt.) Ltd by virtue of Board Resolution / Power of Attorney dated 29-11-2016, hereby confirm that for our project of 7.08 MW installed capacity to be located at **Ghoriwala Katha, District Muzaffarabad, Azad Jammu & Kashmir.**

1. All the plant and machinery to be installed will be brand new.
2. Riali Hydro Power Company (Pvt.) Ltd will bear the hydrological risk.
3. The above mentioned is a green field hydro power project, Riali Hydro Power Company (Pvt.) Ltd has not availed any soft loan for the aforesaid project. In case any soft loan becomes available to Riali Hydro Power Company (Pvt.) Ltd, we will intimate the Authority, within 10 days of such event and will not claim the upfront tariff granted to us.
4. The annual plant factor of the aforementioned project, as certified by the panel of experts, is not based on the detailed design report.
5. We have not already executed a power purchase agreement with the power purchaser for the aforementioned project or have achieved financial close for the aforementioned project.
6. Riali Hydro Power Company (Pvt.) Ltd may be granted upfront tariff based on the following loan structure:

	%
Foreign loan:	0
Local loan:	100

Total: 100

Date: 17<sup>th</sup> March, 2018



Company Seal

Signature: \_\_\_\_\_

Name: Syed M. Hussain Gardezi

Designation: Director (Development)

**"First Small Hydro Power Project in Private Sector"**





## BANKS' CHECKS

Payee's A/C Only

Not Over PKR\*\*\*50,000.00 Only \*\*\*

BC No. 14301427/14301427

Date: 02-Feb-2016

1-10 Industrial Area Islamabad, (0143)

NATIONAL ELECTRIC POWER REGULATORY AUTHORITY

or order

Pak Rupees Fifty thousand Only

PKR\*\*\*50,000.00\*\*\*

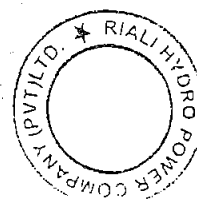
For Askari Bank Limited

Payable at any branch of Askari Bank Ltd in Pakistan.

Authorized Signature \_\_\_\_\_

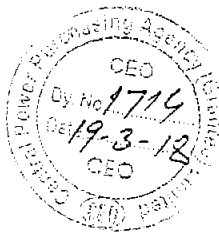
Authorized Signature \_\_\_\_\_

# 14301427#01707871;00000000000000000000#010;





# Riali Hydro Power Company (Pvt.) Ltd.



WITHOUT PREJUDICE

Ref No: RHPCO/CPPA(G)/2018/026

Dated: 17<sup>th</sup> March, 2018

Chief Executive Officer  
Central Power Purchasing Agency Limited (CPPA (G))  
1<sup>st</sup> Floor, ENERCON Building,  
Sector G-5/2, Islamabad

**SUBJECT: HYDROLOGICAL RISK – 7.08MW RIALI – II HYDRO POWER PROJECT (the “Project”)**

[1] Ref: RHPCO/CPPA/UFT/2017/109; dated 15<sup>th</sup> December, 2017 (copy attached)

Dear Sir,

Your kind attention is requested to our above referred letter to CPPA-G, dated: 15<sup>th</sup> December, 2017 for filing the subject project tariff proposal and Upfront Tariff Application to NEPRA (copy attached).

As confirmed earlier through the above referred letter, we would like to reiterate that:

- The Project Company will bear the hydrological risk for the Project. In this regard, NEPRA required certification is attached herewith for your record.
- CPPA-G will procure power, on behalf of relevant DISCO, from the Project Company on Take and Pay & Must Run basis.

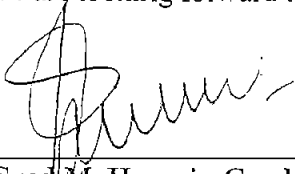
The CPPA (G) has issued consent to purchase power from the project on 26<sup>th</sup> May, 2017.

**Submissions:**

In light of the aforesaid, it is again submitted:

That CPPA-G may kindly forward our Tariff Proposal and Upfront Tariff Application to NEPRA for further process by the Authority.

We are looking forward to a positive response; meanwhile we remain at your services.

  
(Syed M. Hussain Gardezi)  
Director (Development)

Encl: RHPCO Letter dated 15.12.2017 & Annexure – III of NEPRA Upfront Tariff Application.

Cc:

- Director General (PPC) AJK PPD, Upper Chatter, Islamabad.
- Office Copy.

*Manan 25/3/18*  
*Request legal notice to NEPRA to remove the project from the list of projects in regard to NEPRA*

*Let's forward the same to NEPRA under in part of Power Regulation*  
*19/03/18*

CEO	
CFO	
COO	
Company Secretary	
DG HR/Adm	
Chief Information Officer	
SO Technical	
Manager Treasury	
Manager SCM	

**“First Small Hydro Power Project in Private Sector”**



# Riali Hydro Power Company (Pvt.) Ltd

F/A-2



WITHOUT PREJUDICE

Ref No: RHPCO/CPPA(G)/2018/025

Dated: March 17, 2018

Chief Executive Officer  
Central Power Purchasing Agency Limited (CPPA (G))  
1<sup>st</sup> Floor, ENERCON Building,  
Sector G-5/2, Islamabad

**SUBJECT: PROVISION OF REQUISITE INFORMATION - 7.08MW RIALI-II HYDROPOWER PROJECT, AJK (the "Project")**

This is with reference to your letter No. Tech/DGMT-II/MT-IV/RHPCO/111-14 dated 26.01.2018 regarding the provision of comprehensive Tariff Proposal on the basis of established Annual Benchmark Energy, other tariff assumptions, Tariff break-up and details in respect of captioned power project.

We are pleased to attach the requisite information with the following submissions:

**Submissions**

- That the Project is located in the State of Azad Jammu & Kashmir (AJK). Accordingly, the Tariff Proposal is being submitted to you as "Buyer" for onward submission to NEPRA under Rule 3 (4) of NEPRA (Import of Electric Power) Regulations, 2017.
- That the tariff is submitted to you in accordance with the NEPRA (Import of Power) Regulations, 2017 and Upfront Tariff (Approval & Procedure) Regulations, 2011 for the unconditional acceptance of NEPRA Upfront Tariff for Small Hydropower Projects (the "Upfront Tariff").
- That the CPPA-G is requested to submit the Company's Tariff Proposal and the Company's Upfront Tariff Application (necessary annexures) to NEPRA for its acceptance.

Yours Sincerely,

(Syed M. Hussain Gardezi)  
Director (Development)

CTO	
CFO	
CLO	
Company Secretary	
DG HR/Admn	
Chief Information Officer	
SO Technical	
Advisor Treasury	
Manager SMD	
Manager ERP	

*As already written on the letter, it is not needed*  
*19/03/2018*

**Encl: 4 Sets of RHPCO Tariff Proposal & Annexure - III of NEPRA Upfront Tariff Application.**

**Cc:**

- Office Copy.

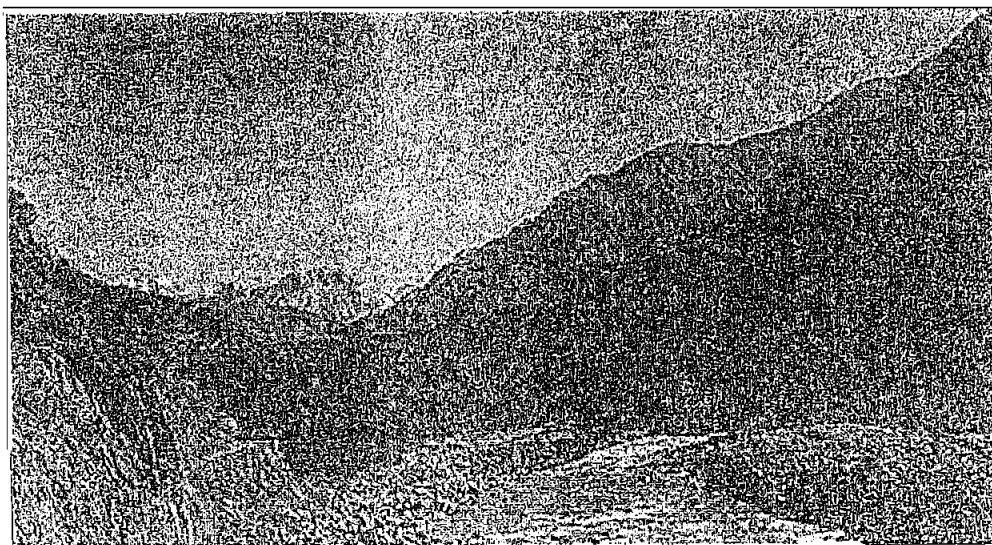
**"First Small Hydro Power Project in Private Sector"**



# TARIFF PROPOSAL

IN RELATION TO:  
IMPORT OF ELECTRICITY  
FROM

7.08 MW RIALI - II HYDROPOWER PROJECT  
MUZAFFARABAD, AZAD JAMMU & KASHMIR

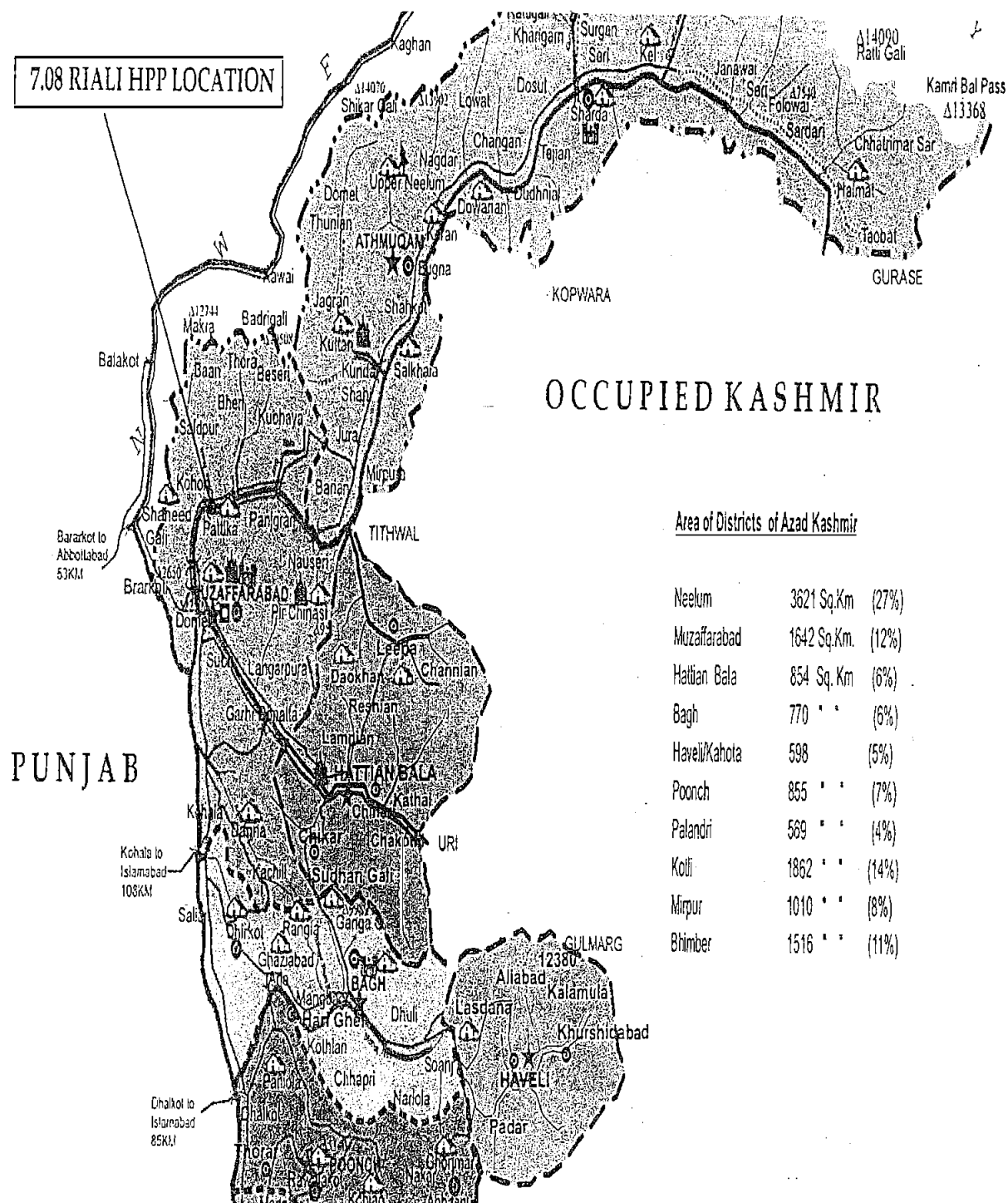


BEFORE  
CENTRAL POWER PURCHASING AGENCY GUARANTEE LIMITED

17 MARCH 2018

Riali Hydropower Company Limited  
59-E, Street 7, I-10/3, Islamabad  
Ph no: 051-4436004, fax no: 051-4431774  
E-mail: [rialihydro@hotmail.com](mailto:rialihydro@hotmail.com)

## 7.08 MW RIALI- II HYDROPOWER PROJECT, AJK SITE LOCATION



## ABBREVIATIONS

AJKPPC	Private Power Cell of the Government of Azad Jammu & Kashmir
COD	Commercial Operations Date
Company	Riali Hydropower Company Private Limited ("RHPCO")
CPPA	Central Power Purchasing Agency Guarantee Limited
DISCO	Distribution Company
EPA	Energy Purchase Agreement
EPC	Engineering Procurement & Construction
GOP	Government of Pakistan
GWh	Giga Watt hour; (1,000,000 kilowatt hours)
IDC	Interest During Construction
IPP	Independent Power Producer
KIBOR	Karachi Interbank Offered Rate
KWh	Kilowatt hour
LIBOR	London Interbank Offered Rate
LOI	Letter of Interest
E&M	Electrical & Mechanical
MW	Mega Watt (1000 kilowatts)
NEPRA	National Electric Power Regulatory Authority of Pakistan
NEPRA Act	Regulation for Generation, Transmission and Distribution of Electric Power Act (XL of) 1997
O&M	Operation & Maintenance
PESCO	Peshawar Electric Supply Company
POE	Panel of Experts
POWER PRODUCER	Riali Hydropower Company Private Limited ("RHPCO")
ROEDC	Return on Equity During Construction
US CPI	United States Consumer Price Index

## 1. Introduction

F/I

### 1.1 Grounds for Proposal

This tariff proposal ("Proposal") is being submitted to Central Power Purchasing Agency Guarantee Limited ("CPPA") in relation to the procurement of power from a 7.08 MW hydropower facility proposed to be set up at Ghoriwala Katha in District Muzaffarabad, Azad Jammu and Kashmir ("Project").

Under the Regulation of Generation, Transmission and Distribution of Electric Power Act (Act No. XL) of 1997 (the "NEPRA Act") and NEPRA (Import of Power) Regulations, 2017, the CPPA is requested to submit the Proposal to NEPRA Authority to determine *inter alia* tariffs and other terms and conditions for the purchase of electricity from the Project.

The National Electric Power Regulatory Authority (hereinafter referred to as the "Authority") vide its determination dated April 02, 2015 had approved Upfront Tariff for Small Hydro Power Generation Projects up to 25 MW Installed Capacity (hereinafter referred to as the "Upfront Tariff"), which was reviewed through the Authority's subsequent decision in the matter of Motions for Leave for Review filed by Riali Hydro Power Company (Pvt.) Limited (RHPCO) and Kathai-II Hydro (Pvt.) Limited (KHL) dated October 14, 2015.

In view of the Project's location i.e., AJK (where the jurisdiction of NEPRA does not extend), the tariff proposal is being submitted to the Power Purchaser (CPPA) as import of electricity into its system as per mechanism envisaged under the NEPRA Act and Regulations including NEPRA's Upfront Tariff (Approval and Procedure) Regulations, 2011.

### 1.2 Project Company & Sponsors

The Project is being developed by Riali Hydro Power Company (Private) Limited ("RHPCO"). The RHPCO ("Project Company") is a limited liability company incorporated under the laws of Pakistan. Major sponsor of the Project is Sachal Engineering Works (Private) Limited; one of the renowned construction companies of Pakistan having extensively worked on infrastructure development projects mainly related to construction of highways and bridges.

### 1.3 Contribution of IPPs in the Power Sector of Pakistan

#### 1.3.1 Hydropower - Energy Security of Pakistan

Hydropower is a perpetual source of energy which renews itself and does not produce harmful emissions. In the face of rising concerns on global warming due to greenhouse affects, continuous reliance on the use of fossil fuels for energy generation is not a preferred choice even for developed economies. When oil prices rise to exorbitantly high level, heavy dependence on its import causes

budget upsets for the developing and developed countries alike that too compels them to explore and tap other means of energy.

The benefits of hydropower for developing economy like Pakistan, which has too limited fiscal resources for expensive imports of oil are multi-faceted. Dependence on imported oil does not provide energy security that must be ensured for future of the country. Despite large un-tapped hydropower potential, the country remains in the grip of severe energy crisis resulting in extended hours of power cuts that have crippling effects on the overall economic and industrial activities. It is anticipated that exploitation of hydropower potential shall significantly reduce the cost of energy in future and drastically cut the oil import bill.

Hydropower plants are known for their agility and long life. Operation of a hydropower plant is preferred over thermal facilities to meet the peaking demands due to short ramp up time. Hydropower plants are also recognized for their black start operation which means that they can operate in isolation without drawing on an outside power source. Hydropower is thus an important and integral part of a generation system with energy mix from various sources.

Hydropower is considered to be the cheapest source of electricity in terms of per unit cost over the life span of a commercial facility compared with other alternatives such as RFO or Gas. The operation and maintenance cost of a hydropower generation facility is many times less. Hydropower, however, requires significant initial investment of which the debt part is the major liability. When the debt is retired, the cost of energy reduces significantly giving long term energy security.

#### 1.4 Hydropower IPPs in AJK

Although the entire Northern region is blessed with abundant hydro potential, the hydro sites in AJK are considered to be more attractive for private sector investment. This is mainly due to convenience of transmission / despatch from the sites to the urban load centres.

Hydro IPPs which have already been commissioned and under construction or in the process of achieving financial close are given Table 1-1 as under:



Table 1- 1: List of Hydro IPPs At various Development Stages

Status	Site	Capacity (MW)
Commissioned:	Khari-I	1
	New Bong Escape	84
	Parind	147
Under Construction	Gulpur	100
	Karot	720
	Khari-II	2.5
Projects heading for financial Close	Kohala	1124
	Mahl	590
	Riali-II	7.08

#### 1.5 7.08 MW Riali-II Hydropower Project, AJK

Riali Hydro Power Company (Private) Limited is a project venture of the Sachal Group and was incorporated as a private limited company in 2012 under the Companies Ordinance, 1984. The company, in essence, is a special purpose vehicle ("SPV") to set up a Run-Off-The-River 7.08 MW Hydropower Plant near Muzaffarabad ("the Project") as an IPP. A design discharge of 2.8 m<sup>3</sup>/s shall be utilized to generate 37.73 GWh annual energy with plant factor of 61%.

The Project shall be implemented on BOOT (Build, Operate, Own, and Transfer) basis with a concession period of thirty years and construction period of three years.

The Project is a high head, run-off-river scheme, which will use the perennial flow of Ghoriwala Katha, a right bank tributary of Neelum River with its confluence with Neelum River about 17 kms upstream of Muzaffarabad near Ghori Bazar. The project is proposed in the lower reach of Ghoriwala Katha with intake near village Bagh and Powerhouse near village Ghori 400 meters upstream of the confluence of Ghoriwala Katha with Neelum River.

Major development activities like land acquisition, interconnection studies, mobilization of EPC at Project site has already been completed and the Sponsors of the Project are aggressively targeting to achieve financial close in the shortest possible time.

### 1.5.1 Project Infrastructure – Civil Works

7.08 MW Riali II Hydro Power Project is proposed in the lower most stretch with intake about 300 meters upstream of bridge near Bagh village. The infrastructures to be developed for the project include the following:

- Diversion weir to divert design flow into a head race (power channel). The diversion weir shall ensure release the environmental compensation discharge for the downstream users.
- A gated intake sluicing facility for regulating/control of flow with an approach channel.
- De-sanding basin with flushing facilities.
- More than 4000 Meter headrace Channel on the left bank of the gorge through which Ghoriwala Katha meanders down and confluences with Neelum River.
- A forebay at the end of Headrace. The forebay is a head-pond for smoothing out the load fluctuations. It also provides a waste way pipe line to allow excess water to flow down to Ghoriwala Katha.
- 802 meters long steel penstock line with bifurcation near power house end.
- Power house with facilities to install entire E / M equipment and 6.6/ 33 kV switch yard for interconnection with the grid.
- Temporary facilities for project construction
- Residential quarters, Mosque and offices

### 1.5.2 Electro-Mechanical Plant and Equipment

The main electro-mechanical plant to be installed for the Project shall include the following:

- Two sets of spherical Inlet valve with a provision for by-pass.
- Two sets of double jet, horizontal shaft Pelton turbine with accessories such as thrust and guide bearings and fly wheels.
- Two sets of PID Governors for turbine speed control during load fluctuation
- Two sets of servomotors and their accessories for control of water jet through needle cone.
- Two sets of synchronous AC Generators.
- Two sets of unit step up transformers.
- Complete sets of unit protection switch gear.
- Complete sets of 6.6 and 33 kV switch gear.
- Complete sets of protection, monitoring, metering and control cubicles for central control.
- 33 kV Interconnection along with in/out bays
- Two sets of spherical Inlet valve with a provision for by-pass.
- Two sets of double jet, horizontal shaft Pelton turbine with accessories such as thrust and guide bearings and fly wheels.
- Two sets of PID Governors for turbine speed control during load fluctuation
- Two sets of servomotors and their accessories for control of water jet through needle cone.
- Two sets of synchronous AC Generators.
- Two sets of unit step up transformers.
- Complete sets of unit protection switch gear.
- Complete sets of 6.6 and 33 kV switch gear.
- Complete sets of protection, monitoring, metering and control cubicles for central control.
- 33 kV Interconnection along with in/out bays

### 1.5.3 Type of Plant, Installed Capacity and Annual Energy

The project is designed as a Run-Off-River Scheme and a discharge of 2.8 m<sup>3</sup>/s (1.4 m<sup>3</sup>/s / unit ), which is available for 40% of time on the flow duration curve and a net head of 304m. The unit capacity shall be 3.54 MW each. The total installed capacity is 7.08 MW with net annual energy of 37.74 GWh at a plant factor of 61%.

### 1.5.4 The Power Purchaser

The Central Power Purchasing Agency (Guarantee) Limited ("CPPA") is the Power Purchaser on behalf of ex-Wapda distribution companies to purchase the Net Electrical Output from the Project. CPPA is a Company incorporated under the Companies Ordinance, 1984 and wholly owned by the Government of Pakistan (the "GOP"). Since June 2015, CPPA has assumed the business of National Transmission and Dispatch Company (the "NTDC") pertaining to the market operations. The Company performs power procurement and payment on behalf of DISCOs.

The power will be supplied in the national grid through the Peshawar Electric Supply Company ("PESCO") which is the relevant DISCO operating in that region.

### 1.5.5 Connectivity with the National Grid

Three alternatives were considered for connection to the national grid:

Alternative	Evacuation Voltage
Alternative-I	11 kV D/C to 35 Muzaffarabad
Alternative-II	132 kV In-Out Jagran- Muzaffarabad S/C
Alternative-III	33 kV D/C to Muzaffarabad (Old) Grid (17km)

Table 1.2

Alternative-III with an evacuation voltage of 33kV has been considered the most economically and technically feasible. The alternative provides good reliability and stability. This connection will also be able to accommodate the evacuation of future adjoining hydro power plants. The capacity of 33kV double circuit is about 35 MVA per circuit and is adequate to transmit the total power of nearly 22 MW. Further, this alternative has been recommended and approved by NTDC and PESCO.

## 1.6 Benefits of Project

The Project will provide much needed electricity from indigenous hydro resources to the National Grid. The Grid connection shall ensure supply to Muzaffarabad City according to the demand. Other major benefits to the National Economy are:

- Saving of foreign exchange as replacement of cost of fuel of an equivalent thermal plant.
- Upgradation of infrastructure in the project area.
- Reduced emissions due to less burning of fossil fuels.
- Introduction of direct and indirect employment opportunities for the project affected people.
- The Project will be a valuable asset for the grid network as the energy would be dispatched in economic preference to oil-fired thermal power stations.

#### 1.6.1 Payments and benefits to AJK Government

As per 2002 / 2015 Power Policy(s), the AJK government will be receiving water use charges as well as the power generation facility will be handed over to the State ownership for a nominal amount of Rs. one (1) only. Since hydropower projects are known to have longer economic and operational life (50 – 100 years), the ownership of the 'power plant' after concession period is a major benefit for the State Government.

#### 1.7 Project History

- The Letter of Interest to conduct the detailed feasibility study was issued by AJK Private Power Cell on 26 April 2002. The feasibility study of the Project was carried out by a leading group of consultants in accordance with the recognized international standards. The feasibility study supported with field data on hydrology and area topography initially suggested an installed capacity of 4.8 MW.
- A special purpose company, namely Riali Hydropower Company ("RHPCO" or the "Project Company") was incorporated to develop, own, and operate the Project. The Project Company maintains its corporate office at 59-E, Street: 7, Sector I-10/3, Islamabad, Pakistan.
- Feasibility stage tariff petition was then filed by RHPCO before the Peshawar Electricity Distribution Company ("PESCO") for 4.8 MW Project which was forwarded to NEPRA for approval. The feasibility stage levelized tariff of US Cents 6.8391/kWh was finally approved by NEPRA on 23.11.2011.
- As RHPCO was preparing to negotiate the PPA with PESCO, which until then was the designated 'power purchaser', PESCO formally declined to enter into the PPA which prevented the Project Company to make further progress.
- RHPCO, however, remained steadfast in its resolve to develop the Project and approached the Federal Ministry of Water and Power for a way forward. After holding a series of meeting with the representatives of PPB, NTDC and CPPA, it was finally agreed that that CPPA/NTDC shall enter into PPA (on behalf of the respective DISCOS i.e., PESCO in the case of the Project).

- The LOS was issued to RHPCO on 9th April 2013 by AJK Private Power Cell. Under the provisions of LOS, the Sponsors were required to achieve financial close of the Project within eighteen months from the date of issuance. However, progress on negotiating and signing the PPA, IA and WUC remained stalled due to the NTDC's limitation to allow interconnection of proposed IPPs below 132 kV. The issue was then referred to NEPRA for proposing changes in the NTDC's license to allow interconnection at 33 or 11 kV.
- While, the issue of designating a Power Purchaser was being resolved, RHPCO decided to revalidate some of the technical parameters of the Project including a review of the design discharge.
- The review of design parameters enabled RHPCO to upgrade the installed capacity from 4.8 MW to 7.08 MW. In addition to derived data, the upgraded installed capacity is supported by about 12 years of observed hydrology through stream gauging being fixed and monitored for the last 12 years.
- The upgraded installed capacity of 7.08MW was approved by the POE of GoAJK on 09-11-2016. The POE of GoAJK includes members from environment, engineering as well as PPIB and CPPA. RHPCO has applied to PPIB for the issuance of tripartite LOS in accordance with the Facilitation Agreement signed between GoAJK and PPIB. The process of tripartite LOS by PPIB is progressing concurrently with this tariff proposal.
- The Sponsors has negotiated and arranged project financing facility through Pak-Brunei Investment Company Limited, which is nominated as a Lead Lender. The financing facility is based on State Bank Scheme for renewable energy projects.
- EPC is now mobilized at site and Sponsors through their own equity has completed significant works at site, such as completion of all project related earth works and structural works at forebay.
- The Sponsors are in the process of negotiating the project agreements i.e. Energy Purchase Agreement (EPA), Implementation agreement (IA) and other financing arrangements in parallel.

# RIALI HYDROPOWER COMPANY (PVT.) LIMITED

## Project Details

Project Name	Riali-II Hydropower Project
Installed Capacity (Gross) (MW)	7.08
Auxiliary Consumption	1%
Net Capacity (MW)	7.01
Plant Factor	61%
Annual Generation (Gross) (GWh)	38.12
Auxiliary Consumption (1%) (GWh)	0.38
Annual Generation (Net) (GWh)	37.74
Reference KIBOR	6.73%
Spread	3.5%
EPC Cost	US\$ 17.0557 million
Soft Cost	US\$ 1.5151 million
Interest During Construction (IDC)	US \$ 2.5844 million
Total Project Cost	US \$ 21.1552 million
Debt	75%
Equity	25%
Total Debt (Local)	US \$ 15.8664 million
Total Equity	US \$ 5.2888 million
Construction Period (Maximum)	3 Years from Financial Close
Debt Payback Period	10 years from COD
Tariff Control Period	30 Years from COD
Project Upfront Tariff (Reference)	9.8109 Rs./kWh 9.6233 US\$/kWh
Exchange Rate	1US\$ = PKR 101.95
Variable O&M	Per Annum (US\$)
- Local	35,619
- Foreign	35,619
Fixed O&M	Per Annum (US\$)
- Local	170,970
- Foreign	42,742
Total O&M Cost	US\$ 284,950
Insurance During Operation	US\$ 230,252

## REFERENCE UPFRONT TARIFF

Levelized Tariff (1-30 years) discounted at 10% per annum = US Cents 9.6233/kWh at reference exchange rate of 1US\$=Rupees 101.95.





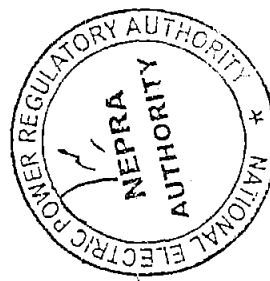
**RIALI HYDROPOWER COMPANY (PVT.) LTD. (Riali-II Hydropower Project)**  
**Reference Debt Servicing Schedule – Local Financing (10 Years)**

Quarterly Debt Servicing Schedule Based on 100% Local Financing								
For the Purpose of Indexation of Debt Component Only								
Period	Principal Million Rs	Repayment Million Rs	Markup Million Rs	Balance Million Rs	Debt Service Million Rs	Annual Principal Repayment Rs./kWh	Annual Interest Rs./kWh	Annual Debt Servicing Rs./kWh
1	1,617.59	23.69	41.37	1,593.89	65.06			
2	1,593.89	24.30	40.76	1,569.59	65.06			
3	1,569.59	24.92	40.14	1,544.67	65.06			
4	1,544.67	25.55	39.50	1,519.11	65.06			
1	1,617.59	98.48	161.78	1,519.11	260.26	2.6093	4.2867	6.8961
5	1,519.11	26.21	38.85	1,492.90	65.06			
6	1,492.90	26.88	38.18	1,466.02	65.06			
7	1,466.02	27.57	37.49	1,438.44	65.06			
8	1,438.44	28.28	36.79	1,410.17	65.06			
2	1,519.11	108.94	151.31	1,410.17	260.26	2.8867	4.0094	6.8961
9	1,410.17	29.00	36.07	1,381.17	65.06			
10	1,381.17	29.74	35.32	1,351.43	65.06			
11	1,351.43	30.50	34.56	1,320.93	65.06			
12	1,320.93	31.28	33.78	1,289.65	65.06			
3	1,410.17	120.52	139.73	1,289.65	260.26	3.1935	3.7026	6.8961
13	1,289.65	32.08	32.98	1,257.56	65.06			
14	1,257.56	32.90	32.16	1,224.66	65.06			
15	1,224.66	33.74	31.32	1,190.92	65.06			
16	1,190.92	34.61	30.46	1,156.31	65.06			
4	1,289.65	133.33	126.92	1,156.31	260.26	3.5329	3.3631	6.8961
17	1,156.31	35.49	29.57	1,120.82	65.06			
18	1,120.82	36.40	28.67	1,084.42	65.06			
19	1,084.42	37.33	27.73	1,047.09	65.06			
20	1,047.09	38.28	26.78	1,008.81	65.06			
5	1,156.31	147.51	112.75	1,008.81	260.26	3.9085	2.9876	6.8961
21	1,008.81	39.26	25.80	969.54	65.06			
22	969.54	40.27	24.80	929.28	65.06			
23	929.28	41.30	23.77	887.98	65.06			
24	887.98	42.35	22.71	845.62	65.06			
6	1,008.81	163.18	97.07	845.62	260.26	4.3239	2.5721	6.8961
25	845.62	43.44	21.63	802.19	65.06			
26	802.19	44.55	20.52	757.64	65.06			
27	757.64	45.69	19.38	711.95	65.06			
28	711.95	46.86	18.21	665.09	65.06			
7	845.62	180.53	79.73	665.09	260.26	4.7835	2.1126	6.8961
29	665.09	48.05	17.01	617.04	65.06			
30	617.04	49.28	15.78	567.76	65.06			
31	567.76	50.54	14.52	517.21	65.06			
32	517.21	51.84	13.23	465.38	65.06			
8	665.09	199.72	60.54	465.38	260.26	5.2920	1.6041	6.8961
33	465.38	53.16	11.90	412.21	65.06			
34	412.21	54.52	10.54	357.69	65.06			
35	357.69	55.92	9.15	301.78	65.06			
36	301.78	57.35	7.72	244.43	65.06			
9	465.38	220.56	39.31	244.43	260.26	5.8544	1.0416	6.8961
37	244.43	58.81	6.25	185.62	65.06			
38	185.62	60.32	4.75	125.30	65.06			
39	125.30	61.86	3.20	63.44	65.06			
40	63.44	63.44	1.62	0.00	65.06			
10	244.43	244.43	15.83	0.00	260.26	6.4767	0.4193	6.8961



# Annex-VII A

## UPFRONT TARIFF FOR HIGH HEAD HYDROPOWER PROJECTS (1 TO 25 MW) BASED ON 100% LOCAL FINANCING REFERENCE TARIFF



Year	Energy Purchase Price			Capacity Purchase Price						Interest	Total Tariff
	Variable O&M Local	Variable O&M Foreign	Fixed O&M Foreign	Insurance	Return on Equity (ROE)	Principal Repayment	Interest				
	Rs./kWh	Rs./kWh						Rs./kWh			
1	0.1183	0.1183	0.1419	0.7646	4.7918	3.2074	5.2693	14.9794			
2	0.1183	0.1183	0.1419	0.7646	4.7918	3.5483	4.9283	14.9794			
3	0.1183	0.1183	0.1419	0.7646	4.7918	3.9255	4.5512	14.9794			
4	0.1183	0.1183	0.1419	0.7646	4.7918	4.3427	4.1339	14.9794			
5	0.1183	0.1183	0.1419	0.7646	4.7918	4.8043	3.6723	14.9794			
6	0.1183	0.1183	0.1419	0.7646	4.7918	5.3149	3.1617	14.9794			
7	0.1183	0.1183	0.1419	0.7646	4.7918	5.8799	2.5967	14.9794			
8	0.1183	0.1183	0.1419	0.7646	4.7918	6.5049	1.9718	14.9794			
9	0.1183	0.1183	0.1419	0.7646	4.7918	7.1963	1.2804	14.9794			
10	0.1183	0.1183	0.1419	0.7646	4.7918	7.9612	0.5154	14.9794			
11	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
12	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
13	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
14	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
15	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
16	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
17	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
18	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
19	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
20	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
21	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
22	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
23	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
24	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
25	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
26	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
27	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
28	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
29	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
30	0.1183	0.1183	0.1419	0.7646	4.8859	-	-	6.5968			
Levelized Tariff	0.1183	0.1183	0.1419	0.7646	4.8245	3.1739	2.3513	12.0606			

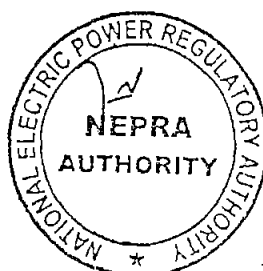
43

## Annex-VII B

## UPFRONT TARIFF FOR HIGH HEAD HYDROPOWER PROJECTS (1 TO 25 MW) BASED ON 100% LOCAL FINANCING

## Debt Servicing Schedule for the Purpose of Indexation of Debt Component Only

Period	Local Debt					Annual Principal Repayment Rs./kWh	Annual Interest Rs./kWh	Annual Debt Servicing Rs./kWh
	Principal Million Rs.	Repayment Million Rs.	Mark-Up Million Rs.	Balance Million Rs.	Debt Service Million Rs.			
1	228.45	3.35	5.84	225.11	9.19			
	225.11	3.43	5.76	221.68	9.19			
	221.68	3.52	5.67	218.16	9.19			
	218.16	3.61	5.58	214.55	9.19			
	228.45	13.91	22.85	214.55	36.76	3.2074	5.2693	8.4766
2	214.55	3.70	5.49	210.84	9.19			
	210.84	3.80	5.39	207.05	9.19			
	207.05	3.89	5.30	203.15	9.19			
	203.15	3.99	5.20	199.16	9.19			
	214.55	15.39	21.37	199.16	36.76	3.5483	4.9283	8.4766
3	199.16	4.10	5.09	195.06	9.19			
	195.06	4.20	4.99	190.86	9.19			
	190.86	4.31	4.88	186.56	9.19			
	186.56	4.42	4.77	182.14	9.19			
	199.16	17.02	19.73	182.14	36.76	3.9255	4.5512	8.4766
4	182.14	4.53	4.66	177.61	9.19			
	177.61	4.65	4.54	172.96	9.19			
	172.96	4.77	4.42	168.20	9.19			
	168.20	4.89	4.30	163.31	9.19			
	182.14	18.83	17.93	163.31	36.76	4.3427	4.1339	8.4766
5	163.31	5.01	4.18	158.30	9.19			
	158.30	5.14	4.05	153.15	9.19			
	153.15	5.27	3.92	147.88	9.19			
	147.88	5.41	3.78	142.48	9.19			
	163.31	20.83	15.92	142.48	36.76	4.8043	3.8723	8.4766
6	142.48	5.55	3.64	136.93	9.19			
	136.93	5.69	3.50	131.24	9.19			
	131.24	5.83	3.36	125.41	9.19			
	125.41	5.98	3.21	119.43	9.19			
	142.48	23.05	13.71	119.43	36.76	5.3149	3.1617	8.4766
7	119.43	6.13	3.05	113.29	9.19			
	113.29	6.29	2.90	107.00	9.19			
	107.00	6.45	2.74	100.55	9.19			
	100.55	6.62	2.57	93.93	9.19			
	119.43	25.50	11.26	93.93	36.76	5.8799	2.5967	8.4766
8	93.93	6.79	2.40	87.15	9.19			
	87.15	6.96	2.23	80.19	9.19			
	80.19	7.14	2.05	73.05	9.19			
	73.05	7.32	1.87	65.73	9.19			
	93.93	28.21	8.55	65.73	36.76	6.5049	1.9718	8.4766
9	65.73	7.51	1.68	58.22	9.19			
	58.22	7.70	1.49	50.52	9.19			
	50.52	7.90	1.29	42.62	9.19			
	42.62	8.10	1.09	34.52	9.19			
	65.73	31.20	5.55	34.52	36.76	7.1963	1.2804	8.4766
10	34.52	8.31	0.88	26.22	9.19			
	26.22	8.52	0.67	17.70	9.19			
	17.70	8.74	0.45	8.96	9.19			
	8.96	8.96	0.23	0.00	9.19			
	34.52	34.52	2.24	0.00	36.76	7.9612	0.5154	8.4766



44

## **Indexations & Adjustments**

(Ref: No. NEPRA/UTH-01/15031-15033 October 14, 2015)

The tariff will be allowed a onetime adjustment at COD, but will then remain unchanged throughout the tariff control period. However, indexations for the following components will be allowed on a quarterly basis:

Table 2.0

Component	Indexation
Variable O & M - Local - Foreign	CPI (General) US CPI and PKR/US\$
Fixed O&M - Local - Foreign	CPI (General) US CPI and PKR/US\$
Insurance	PKR/US\$
Return on Equity	PKR/US\$
Debt Servicing - Principal - Interest Payments	Local Debt - 3 Months KIBOR

## 2. Adjustment for variation in Dollar/Rupee parity

Relevant components of the tariff shall be adjusted at commissioning of the Project on account of actual variation in PKR/USD parity with reference to the assumed rate of PKR/USD of Pak Rs. 101.95.

### 2.1 One Time Adjustment of Tariff after COD

With reference to the total EPC Costs, the tariff will be allowed a onetime adjustment after COD in the following manner:

- 40% of the assumed EPC Cost will be adjusted over 36 months starting from the date of financial close of the project for USD/PKR variation
- 60% of the assumed EPC Cost will be converted at an exchange rate of PKR 101.95/USD and adjusted over a period of 36 months starting from the date of financial close of the project according to the below formula.

$$P_n = 0.51 + 0.10 * (C_n/C_o) + 0.09 * (S_n/S_o) + 0.15 * (F_n/F_o) + 0.15 * (L_n/L_o)$$

Where:

$P_n$	Adjustment Factor to be applied for civil works
$C_n$	Index value for the relevant month for Cement as given in the Monthly Bulletin of Statistics published by the Pakistan Bureau of Statistics
$S_n$	Index value for the relevant month for Steel Bar & Sheets as given in the Monthly Bulletin of Statistics published by the Pakistan Bureau of Statistics
$F_n$	Index value for the relevant month for Diesel Oil as given in the Monthly Bulletin of Statistics published by the Pakistan Bureau of Statistics
$C_o, S_o, F_o, L_o$	Reference values of the price indices for Cement, Steel Bar & Sheets, Diesel Oil and Mason (Raj) respectively as available at the time of financial close of the project

Adjustments will be made on quarterly basis and where applicable, the amounts will be spread equally into quarters.

All other project costs, excluding IDC (Interest during Construction) will be considered as local costs and shall not be adjusted in any way.

The tariff allowed to the company, after onetime adjustment where applicable, will remain unchanged throughout the tariff control period, except for the adjustments due to indexations/adjustment. The indexations of O&M, return on equity, principal repayment of debt and interest will be allowed on quarterly basis. Insurance component will be adjusted annually.

Interest During Construction (IDC) will be adjusted based on the combined impact of the allowed financing mix and One-Time adjustment of EPC cost.

## 2.2 Indexation applicable to Fixed O&M

FOM (LREV)	$FOM (LREF) * CPI-G (REV) / CPI-G (REF)$
FOM (EREV)	$FOM (FREF) * US CPI (REV) / US CPI (REF) * ER (REV) / ER (REF)$
Where	
FOM (LREV)	The revised applicable fixed O & M local component of tariff
FOM (EREV)	The revised applicable fixed O & M foreign component of tariff
FOM (LREF)	The reference fixed O & M local component of tariff for the relevant period
FOM (FREF)	The reference fixed O & M foreign component of tariff for the relevant period
CPI-G (REV)	Revised Consumer Price Index (General) based on latest available information with respect to Consumer Price Index General) as notified by the Pakistan Bureau of Statistics
US CPI (REV)	Revised US CPI (all urban consumers) based on latest available information with respect to US CPI (notified by US Bureau of Labor Statistics)
ER (REV)	Revised TT & OD selling rate of US Dollar as notified by the National Bank of Pakistan as at the last day of the preceding quarter
CPI-G (REF)	Reference Consumer Price Index (General) – Current reference 199.66 Consumer Price Index (General) for the month of May 2015 as notified by the Pakistan Bureau of Statistics
US CPI (REF)	Reference US CPI (all urban consumers) – Current reference 237.805 US CPI (all urban consumers) for the month of May 2015 as notified by the US Bureau of Labor Statistics
ER (REF)	Reference TT & OD selling rate of US dollar – current reference 101.95

### 2.3 Indexation applicable to Variable O&M

VOM (LREV)	$VOM (LREF) * CPI-G (REV) / CPI-G (REF)$
VOM (FREV)	$VOM (FREF) * US CPI (REV) / US CPI (REF) * ER (REV) / ER(REF)$
Where	
VOM (LREV)	The revised applicable variable O&M local component of tariff
VOM (FREV)	The revised applicable variable O&M foreign component of tariff
VOM (LREF)	The reference variable O&M local component of tariff for the relevant period
VOM (FREF)	The reference variable O&M foreign component of tariff for the relevant period

### 2.4 Adjustment of Insurance Component

In case of insurance denominated in US \$, insurance cost component of tariff will be adjusted only on account of US \$/PKR exchange rate variation annually, not exceeding the insurance cost actually incurred.

### 2.5 Indexations applicable to Return on Equity

$$ROE (REV) = ROE (REF) * ER (REV) / ER (REF)$$

Where:

ROE (REV)	The revised applicable return on equity tariff component indexed with exchange rate parity
ROE (REF)	The reference return on equity tariff component for the relevant period
ER(REV)	Revised TT & OD selling rate of US Dollar as notified by the National Bank of Pakistan as at the last day of the preceding quarter
ER(REF)	Reference TT & OD selling rate of US dollar — current reference 101.95

### 2.6 Indexation Applicable to Local Interest

$$\Delta I = P (REV) * (KIBOR (REV) - 6.73\%) / 4$$

Where:

$\Delta I$	The variation in interest charges applicable corresponding to variation in 3 months KIBOR. $\Delta I$ can be positive or negative depending upon whether 3 months KIBOR (Rev) per annum > or < 6.73%. The interest payment obligation will be enhanced or reduced to the extent of $\Delta I$ for each quarter under adjustment.
P(REV)	Is the revised outstanding principal (as indicated in the attached debt service schedule to this order at Annex-II), after allowing onetime adjustment for exchange rate parity, on a quarterly basis at the relevant quarterly calculations date. Quarter 1 shall commence on the commercial operations date (i.e. the first figure will be used for calculation purposes of interest for the first quarter after COD).
KIBOR (REV)	Revised 3 months KIBOR as at the last day of the preceding quarter

### 3. Hydrological risk

The hydrological risk shall be borne by the Power Producer, whereby all power generated by the Complex/Power Producer will be allowed to sell & procured by the Power Purchaser at the prevailing upfront tariff.

### 4. Adjustment on account of savings in cost of debt

The Project tariff has been worked out on the basis of 3 months KIBOR of 6.73% plus a premium of 350 basis points. In case the spread negotiated is less than the said limits, the savings in the premium over KIBOR shall be shared by the power purchaser and the power producer in the ratio of 60 : 40 respectively. The power producer will submit relevant authentic documentary evidence to the Authority, for the aforesaid adjustment within 15 days of commercial operations date of the project. In case the premium on KIBOR is higher than that mentioned above, no adjustment on the basis of actual higher premium will be requested.

The interest during construction assumed for the purpose of tariff calculations is US\$ 0.365 Million per MW. The interest during construction will be reassessed at commercial operations date of the project with actual KIBOR and spread.

### 5. Adjustment on account of actual plant factor

The above tariff has been adjusted based on 61% plant factor of the project. The upfront tariff has been opted without finalization of detailed project design, therefore the power producer will submit request for onetime adjustment, within 15 days of the commercial operation's date of the project, accompanied by the revised panel of experts certificate regarding net annual plant factor, on the basis of detailed project design.

### 6. Pass Through Items

If the company is obligated to pay any tax on its income from generation of electricity from small hydro, or water use charges/IRSA charges/other such levies or charges, not being of refundable nature, are payable by the company for generation of electricity from small hydro or any duties and/or taxes, not being of refundable nature, are imposed on the company upto the commencement of its commercial operations for import of its plant machinery and equipment, the exact amount paid by the company on these accounts shall be reimbursed by the power purchaser on production of original receipts. This payment should be considered as a pass-through payment spread over a twelve months period. The payment on account of water use charges shall be spread equally over 12 months for each year. Furthermore, in such a scenario, the company shall also submit to the power purchaser details of any tax/levies/charges savings and the power purchaser shall deduct the amount of these savings from its payment to the company on account of taxation.

The adjustment for duties and/or taxes will be restricted only to the extent of duties and/or taxes directly imposed on the company. No adjustment for duties and/or taxes imposed on third parties such as contractors, suppliers, consultants, etc., will be allowed.



## **Correspondence & Records**



# Central Power Purchasing Agency (Guarantee) Limited

A Company of Government of Pakistan



OFFICE OF CHIEF EXECUTIVE OFFICER

No. CPPAGL/2017/CEO/RHPCO/ 82-39-45

Date: 26-05-17

The Registrar  
NEPRA, NEPRA Office Building  
G-5/1, Attaturk Avenue (East), Islamabad

**Subject: Consent of Purchase of Power in Respect of  
7.08 MW Riali-II Small Hydropower Project, District Muzaffarabad, AJK**

1. Pursuant to NEPRA's Upfront Tariff (Approval and Procedure) Regulations, 2011 "Consent of Purchase Power" is hereby issued in respect of 7.08 MW Riali-II Hydropower Project at Ghorwalla Katha, Muzaffarabad AJK.
2. Issuance of Consent to Purchase Power is subsequent to fulfilment of all requirements under "Guidelines/SOP for Power Procurement by CPPA-G under NEPRA Renewable Energy Companies Guidelines, 2015" issued by CPPA-G vide No. CPPA-G/CS/2016/1965 dated 31-05-2016 and subject to the following conditions:
  - i) Back to back agreement between CPPA-G and relevant DISCOs for the evacuation of Power;
  - ii) Approval of Grid Interconnection Study by the relevant DISCOs and NTDC;
  - iii) Completion of other codal formalities as per applicable Policies, laws, Rules and Regulations;
  - iv) CPPA-G will procure Power, on behalf of relevant DISCOs, from the project companies on Take and Pay basis;
  - v) Based on the above necessary changes will be made in the EPA
3. This is issued with approval of Board of Directors, Central Power Purchasing Agency (Guarantee) Limited given under Board Resolution No. VII/27 presented on 25<sup>th</sup> May 2017 and notified by Company Secretary vide No. CPPA-G/2017/CS/1021-24 dated 25<sup>th</sup> May 2017.

Chief Executive Officer

**Copy to:**

1. Chief Executive Officer, PESCO, Sakhi Chasma, Shami Road Peshawar.
  2. Managing Director, PPIB, Emigration Tower, G-8/1 Islamabad.
  3. Chief Technical Officer, CPPA-G, Islamabad.
  4. Director General, Private Power Cell, Upper Chatter, Muzaffarabad AJK.
  5. Company Secretary, CPPA-G, Islamabad.
  - ✓ 6. M/s Riali Hydro Power Company (Pvt) Limited, 59-E, Street 7, I-10/3 Islamabad.
- Master File.

G<sup>nd</sup> Floor ENERCON Building, G-5/2 Islamabad

+92-51-9216962 / +92-51-9216949 / dgmtech-ii@cpa.gov.pk

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**AZAD GOVT OF STATE OF JAMMU & KASHMIR  
PRIVATE POWER CELL**

PDO Complex, Upper Chatter Housing  
Colony, Muzaffarabad  
Tel: (05822) 921966  
(05822) 921685  
Fax: (05822) 921305  
mail: a/k-ppc@hotmail.com

Ref: PPC/1871-73/2015 Dated: 6/12/2015

Chief Executive Officer  
CPPA (C) Ltd  
6<sup>th</sup> Floor, Shaheed-e-Millat Secretariat,  
Jinnah Avenue, Blue Area,  
Islamabad

**Subject: 7.08 MW RIALI-II HYDROPOWER PROJECT - ACCEPTANCE OF  
UPFRONT TARIFF DETERMINED BY NEPRA**

This is in continuation to our letter No. PPC/1871-73/2015 dated 11/11/2015 vide which Riali Hydro Power Company was recommended for grant of upfront tariff & filled up Annexures I & II were forwarded.

2. Thereafter the project company submitted updated Power & Energy Modelling Report for Riali-II Hydro Power project on 05/05/2016 which has been approved by Panel of Experts (POEs) constituted by GoAJK on 09/11/2016 (copy enclosed).
3. Therefore we confirm that our panel of experts has provided certificate regarding annual plant factor which is 61% of RIALI HYDRO POWER COMPANY (PVT) LTD for its project of 7.08 MW installed capacity to be located at Ghoriwala Katha, Muzaffarabad, Azad Jammu & Kashmir and the Mean annual Energy is 38.12 GWh Monthly Bench Mark Hydrology is the same as already conveyed vide above referred letter.

  
Naveed-ul-Zaffar Gillani  
Director General

Copy to:

1. Secretary Electricity/PDO, GoAJK, Muzaffarabad.
2. Chairman NEPRA, OPE Building, C-5/1, Islamabad.
3. Chief Technical Officer (CTO), CPPA (C), Ground Floor Enercon Building, Near State Bank of Pakistan, sector G-5/2, Islamabad.
4. Director Development, M/s Riali Hydro Power Company (Pvt.) Ltd, 59-E, Street-7, Sector I-10/3, Islamabad.



**AZAD GOVT. OF STATE OF JAMMU & KASHMIR  
PRIVATE POWER CELL**

PDO Complex, Upper Chatter Housing  
Colony, Muzaffarabad  
Tel: (05822) 921966  
(05822) 921685  
Fax: (05822) 921305  
mail: ajk\_ppc@hotmail.com

Ref: PPC/202-6/2017 Dated: 14/2/2017

Chief Executive Officer  
CPPA (G) Ltd

6th Floor, Shaheed-e-Millat Secretariat,  
Jinnah Avenue, Blue Area,  
Islamabad.

Subject: 7.08 MW RIALI-II HYDROPOWER PROJECT -- ACCEPTANCE OF  
UPFRONT TARIFF DETERMINED BY NEPRA

This is further in continuation to our letter No. PPC/1601-5/2015 dated 06.12.2016  
on the subject cited above (copy enclosed).

2. We hereby certify that Panel of Experts (POEs) appointed by GoAJK has  
confirmed that the monthly benchmark net deliverable energy (Gwh) is as  
under:

Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
0.73	0.71	2.41	5.39	5.57	5.39	5.57	5.57	2.89	1.43	1.25	.87	37.74

Naveed-ul-Zaffar Gillani  
Director General

C.C:

1. Secretary Electricity/PDO, GoAJK, Muzaffarabad.
2. Chairman NEPRA, OPF Building, G-5/1, Islamabad.
3. Chief Technical Officer (CTO), CPPA (G), Ground Floor, Enercon Building,  
Near State Bank of Pakistan, sector G-5/2, Islamabad.
4. Director Development, M/s Riali Hydro Power Company (Pvt.) Ltd, 59-E,  
Street-7, Sector I-10/3, Islamabad.



# Central Power Purchasing Agency (Guarantee) Limited

A Company of Government of Pakistan



6<sup>th</sup> Floor, Shaheed-e-Millat Secretariat, Jinnah Avenue, Blue Area, Islamabad

## OFFICE OF CHIEF TECHNICAL OFFICER

No. CPPAGL/DGM-II/MT-IV/RHPCO/ 15278-8D

Date: 03-02-2017

The Director General  
Private Power Cell, AIK PDO Complex  
Upper Chatter Housing Colony, Muzaffarabad, AIK

Project: 7.08 MW Riali-II Hydropower Project, AIK

Subject: Confirmation of Mean Annual Energy and Benchmark Net Deliverable Energy

Ref: [1] PPC, AIK letter No. 29-37/2016 dated 09-01-2017


[2] Panel of Experts Meeting dated 09-11-2016

Receipt of Mean Annual Energy and Net Monthly Benchmark Energy Calculations (submitted by Sponsor) vide PPC, AIK letter [Ref.1] in follow up to Panel of Experts (POE) meeting at Kashmir House Islamabad dated 09-11-2016 is acknowledged. No further comments offered by CPPA-G, please.

  
Dy. General Manager (Tech)-II  
CPPA-G Islamabad

### Copy to:

1. Chief Technical Officer, CPPA-G, Islamabad.
2. M/s. Riali Hydropower Company (Pvt) Limited, 59-E, Street 7, I-10/3 Islamabad.
- Master File.

  
2/2/2017

6<sup>th</sup> Floor ENERCON Building, G-5/2 Islamabad

+92-51-9216962 +92-51-9216949 dgmtech-ii@cpa.gov.pk

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Managing Director

October 11, 2015

MR. ABDUL KARIM QURESHI  
Chief Executive Officer  
Riall Hydro Power Company (Private) Limited  
59-E-Street No. 7-1-10/3  
Islamabad - Pakistan

Dear Qureshi Sahib,

This is with reference to the proposed financing facility of PKR 1.6 Billion for the Riall II hydro power project being set up by Riall Hydro Power Company (Pvt.) Ltd. (RHPCO).

As you know, we are concerned about the progress of the project which seems to have come to a halt. We have received several queries from State Bank of Pakistan (SBP) where we had put up your case for approval as the first small hydro power project to seek financing under the SBP Financing Scheme for Renewable Energy. Riall II is also the first project where DPs have come together as financiers for what was to be the first private sector hydel project under Nopra's Upfront Tariff for Small Hydro Power Generation Projects upto 25 MW installed capacity and we continue to field questions from them as to the future course of action.

There is a gap of nearly two years since we arranged financing for the project and it is noted that government approvals are yet to materialize. Please let us know your view on the matter as the extension of Upfront Tariff will also expire by March 2018.

Warm regards,

Avestia Aziz



State Bank of Pakistan  
Infrastructure, Housing & SME Finance Department  
I.I. Chundrigar Road  
Karachi

No. IH&SMEFD/REPP/2016-3606

February 12, 2016

The Managing Director,  
Pak-Brunei Investment Company Limited,  
Horizon Vista Building, 6<sup>th</sup> floor, Comm-10,  
Block 4, Scheme No. 5, Clifton  
Karachi.  
Fax No. 35361213

Attention: Ms. Sadaf Alluddin  
Mr. Karim Hatim

Dear Madam,

**Request for Financing for 6.6 MW Riali II Hydro Power Project (HPP) under SBP's Scheme  
for Financing Power Plants Using Renewable Energy**

Please refer to your bank's letter No. ASIG/39/2015 dated 31-12-2015 regarding the captioned subject.

2. In this connection, the following approvals have been granted subject to fulfillment of rules and regulations set by the concerned regulatory authority and other relevant Government Departments, in compliance with the prevalent notifications and Renewable Energy Policy of Government of Pakistan:

- a) Financing under the Scheme is being allowed for civil works, amounting to Rs. 1,012.383 million related to 6.6 MW Riali II HPP.
- b) Availability Period of 03 years is granted. The total tenor shall, however, not exceed maximum of 10 years.

3. Accordingly, you may process the financing request of M/s. Riali Hydro Power Company Ltd for their 6.6 MW Riali II Hydro Power Project, for civil works in addition to plant & machinery under the captioned Scheme. Furthermore, you are advised to approach us for refinance limit allocation after getting firm commitments from other banks/DFIs in the syndicate indicating share of each bank/DFI.

4. You must ensure fulfillment of requisite pre disbursement formalities by the borrower through due diligence as per your own internal arrangements to avoid malpractices and mis-utilization of funds under the Scheme. You will also be required to submit compliance certificate, verifying smooth progress based on the verification reports prepared by the technical consultants to the Project.

Sincerely,

(Dr Muhammad Saleem)  
Additional Director

Phone: 92-21-99221358

Fax: 92-21-99221139



NATIONAL TRANSMISSION &amp; DESPATCH CO. LTD.

General Manager Planning Power, NTDCL

No. GMPP/CEMP/TRP-300/HPP/Rial-II/67647a

Dated: 20-09-2013

General Manager (CPFA)  
107 WAPDA House  
Lahore  
Fax: 042-99201179

Sub: Electrical Grid Studies for 6.3 MW Rial-II Hydro Power Project (HPP)

Ref: Letter No. CPFA/MT-II/Rial-II/7288-93 dated 30-07-2013 from the office of GM (CPFA).

This office reviewed the final draft report of the subject 6.3 MW Rial-II HPP received vide above referred letter and asked the consultant M/s Power Planning International (PPI) to make necessary changes in the system studies. M/s PPI provided the revised studies on 16-09-2013 after incorporating our comments. This office has now no objection on the recommended interconnection scheme for evacuation of power from the subject HPP and the subject final report of electrical grid studies is valid. Since the recommended interconnection scheme is at 33 KV voltage which falls in the jurisdiction of PESCO, therefore, the comments from the office of Chief Executive Officer (PESCO) on the subject grid studies must also be obtained.

(Nisar Ahmad Bazni)

General Manager Planning Power, NTDCL

cc:

- i) Managing Director RPIB, Nazimuddin Road, F-7/4, Islamabad. (Fax: 051-9100131-32)
- ii) Managing Director Hydro Electric Board, H.No. 36, Upper Chaltar, Muzaffarabad.
- iii) Chief Executive Officer (PESCO), 166 Wapda House, Shami Road, Peshawar. (Fax: 091-9212024)
- iv) Director General, Private Power Cell, HEB, H.No. B-18, Upper Chaltar, Muzaffarabad.
- ✓ v) Syed M.H. Gardazi, Director Development, M/s Rial Hydro Power Company (Pvt.) Ltd, 59-E, St. No. 7, Sector-I, 10/A, Islamabad. (Fax: 051-4444536)
- vi) M/s PPI (Consultant), 66-H/2, WAPDA Town, Lahore. (Fax: 042-35163166)

Master File (MF)

4th Floor, PPA Tower, Egestion Road, Lahore. TEL: 042-99202613, Fax: 042-3630777





# NATIONAL TRANSMISSION & DESPATCH CO. LTD (NTDC)

General Manager Planning Power, NTDC

No. GMP/CEMP/IRP-300/927-36

Date: 17/12/2017

Shah Jahan Mirza  
Managing Director (PPB)  
Shah Jahan Mirza Secretariat  
6th Floor, Minar Avenue  
Blue Area, Islamabad  
Tel: 351-9511 (1st)

**Subject: Rial II Hydropower Project - Power Evacuation**

**Ref:** The meeting held on the subject in the committee room of Ministry of Water & Power, 3rd Floor, Block A, Pak Secretariat, Islamabad. The meeting was chaired by Additional Secretary, MoW&P, Islamabad and attended by the relevant stakeholders.

With reference to above, NTDC is of the view point that the interconnection voltage of 33 kV is more appropriate than 132 kV for evacuation of power from small hydropower projects including Rial I, II & III and Bataduna, in view of their generation capacities, locations as well as existing network in their vicinity.

(Magsood Ahmad Qureshi)  
General Manager Planning Power

**cc:**

- Mr. Omair Rasool, Additional Secretary, MoW&P, Islamabad.
- Secretary, Electricity PDCO, AIC, Multan.
- Chief Executive Officer, CPEA, Islamabad.
- Chief Executive Officer, PESCO, Peshawar.
- P.S. to Additional Secretary, MoW&P, Islamabad.
- P.S. to Managing Director, NTDC, 44 Wapda House, Lahore.
- Mr. Saifur Ahmad, Director (Finance & Policy) PPB, Islamabad.
- Syed M. Hussain Gurdazi, Director Development, Rial Hydropower Co. Ltd, Islamabad.
- Mr. P.P. 54-P, Wapda Town, Lahore. (Tel: 042-35183166)

2. INFORMATION

4th Floor, PIA Tower, Iqbal Road, Lahore. TEL: +92-42-9922613, Fax: +92-42-36307738, gmp@ntdc.com.pk



PESHAWAR ELECTRIC SUPPLY COMPANY

PH# 091-9212019

Fax: 091-9212024

OFFICE OF THE  
CHIEF EXECUTIVE PESCO  
WAPDA HOUSE, PESHAWAR

No 435-40, Rali-II

Dated: 03/03/2014

GM Planning (Power) NTDC,  
4th Floor, PIA tower, Egerton road,  
Lahore.

Subject: ELECTRICAL GRID STUDIES FOR 6.03MW RALI-II  
HYDROPOWER PROJECT.

Ref: Your letter No. 6764-70 dated 20.09.2013.

PESCO agrees with the recommendations of M/s Power Planning  
International (PPI) for evacuation of power at voltage level of 33 KV duly vetted by  
your office.

  
(Engr. Mussara Gul)  
Chief Commercial Officer  
PESCO.

Copy to:

1. GM (TECH) PESCO. The above option was jointly discussed by CE (PMU) and  
your good self in your office and was agreed.
2. CE (PMU) PESCO for information w.r.t his letter No. 560-61 dated 30.1.2014.
3. Additional Chief Engineer (CPA) 229-WAPDA House Lahore w.r.t. his letter  
9397-9404 dated 13.11.2013.
4. SO to CEO PESCO for information.
- ✓ 5. Syed M.H Gardezi, 59E, Street No.07, Sector: I-10/3, Islamabad w.r.t his letter  
No. RHPCO-228 dated 06.01.2014.

PESHAWAR ELECTRIC SUPPLY COMPANY

PH# 091-9212334  
Fax: 091-9212024

OFFICE OF THE  
CHIEF EXECUTIVE PESCO  
WAPDA HOUSE, PESHAWAR

No. 1785

Dated: 21/7/2017

Deputy General Manager Tech:  
CPPA(G) ENERCON Building  
G-5/2 Islamabad

Subject: CONSENT FOR POWER EVACUATION FROM 7.08 MW  
RIAL-II HPP AND 8.0 MW KATHAI-II HPP.

In continuation of this office letter No. 1758/Hydel/Kathai-II/HPP  
dated 14.03.2017 and letter No. 1772/Hydel/Rial-II/HPP dated  
24.03.2017.

Enclosed find herewith approval of PESCO BoD issued vide letter  
No. Sec:PESCO//115 BoD //1606-07 dated 14.04.2017 regarding the subject  
matter for further necessary action please.

DA as above.

  
Director (Tamil & RBC)  
PESCO Peshwar



## PESHAWAR ELECTRIC SUPPLY COMPANY

Phone No. + 92-91-9210226  
Fax No. + 92-91-9223135  
Email: sec.pesco@gmail.com

Office of the  
Company Secretary PESCO  
Wapda House, Shami Road,  
Peshawar.

No. Sec/PESCO/115 BoD/1606-07

Dated: 14.04.2017

Chief Commercial Officer  
PESCO HQ Peshawar

Subject: **115<sup>th</sup> PESCO BOARD DECISIONS**

PESCO Board of Directors in its 115<sup>th</sup> Board meeting held on 05.04.2017 made the following decision:-

### Agenda Item #07

a. Issuance of NOC/Power Evacuation Certificate in respect of Rial-II 7.08 MW Hydro Power Project located in AJK

CEO explained to the Board that an application was received from Company Secretary Rial-II HPP vide letter No. RHPCO/3017/029 dated 21.03.2017 wherein PESCO was requested to provide Power Evacuation Certificate and consent for purchase of power in respect of their 7.08 MW Hydro Power Project being located at AJK. PESCO technical directorates have not consented on power evacuation at 33 KV voltage level. However, the sponsors as per undertaking have given consent to construct 33 KV line along with its operation and maintenance and allied grid equipment. PESCO vide letter No. 1772 dated 24.03.2017 issued NOC with the following terms and conditions:-

i. M/s Rial-II shall be responsible for the construction along with operation and maintenance of the interconnection facility and no cost / expenditure and responsibility in this regard shall be borne by PESCO.

ii. Settlement of the obligations of PESCO arising under the back to back agreement which shall be signed between CPPA (G) and PESCO.

iii. Approval of PESCO BoD

iv. Generation license / tariff determination by NEPRA

After detailed discussion on the above item, Board of Directors PESCO accorded approval for issuance of NOC/consent regarding evacuation of power from 7.08 MW Rial-II HPP located at AJK.

b. Issuance of NOC/Power Evacuation Certificate in respect of Kathal-II 8.0 MW Hydro Power Project located in AJK

CEO PESCO also informed the Board that an application was also received from Company Secretary Kathal-II HPP vide letter No. KATHAL-II/PESCO/2017 dated Feb. 8, 2017 wherein PESCO was requested to provide Power Evacuation Certificate and

*M. Aslam*  
*19/4/17*  
*Policy*

*W. I.*

*20/4*

consent for purchase of Power in respect of their 8.0 MW Hydro Power Project being located at AJK PESCO technical directorates have not consented on power evacuation at 33 KV voltage level. However, the sponsors have undertaken to construct 33 KV line along with its operation and maintenance and allied grid equipment. PESCO vide letter No 1758 dated 14.03.2017 issued NOC on following terms and conditions:-

- i. M/s Kathal II shall be responsible for the construction along with operation and maintenance of the interconnection facility and no cost / expenditure and responsibility in this regard shall be borne by PESCO as per undertaking given by the concerned Company Secretary.
- ii. Settlement of the obligations of PESCO arising under the back to back agreement which shall be signed between CPPA (C) and PESCO.

CEO requested BOD for approval of issuance of NOC / consent regarding evacuation of power from 8.0 MW Kathal II HPP located at AJK.

After detailed discussion on the above point, Board of Directors PESCO accorded approval for issuance of NoC / consent regarding evacuation of power from 8.0 MW Kathal II HPP located at AJK.

Please take further necessary action in light of Board decision and implementation position may be forwarded to this office within a week time positively.

  
Company Secretary  
PESCO

Endors. No. SO 93-44 BOD Dated 21.7.17 2017  
Copy of the above is forwarded to: The Addl. Manager Commercial / The Deputy Manager Commercial (IMP) PESCO H/O Peshawar for taking further necessary action.

  
Manager Commercial  
PESCO Peshawar

Copy to:  
The SO to CEO PESCO Peshawar with reference to above for information.

*related to Tank*  
*2.6/14*

No. Ent.2(05)-PPIB/2016-Misc  
Government of Pakistan  
Ministry of Water and Power  
\*\*\*\*\*

Islamabad, July 31, 2017.

The MD,  
PPIB,  
Islamabad.

The CEO,  
PESCO,  
Peshawar.

The CEO,  
CPPA-G,  
Islamabad.

The Director (Dev),  
Riali Hydro Power Company (Pvt) Ltd,  
Islamabad.

Subject: MINUTES OF MEETING REGARDING EVACUATION OF ELECTRICITY  
FROM 7.08 MW RIALI-II HYDROPOWER PROJECT THROUGH 33 KV  
NETWORK IN AJK AND BACK TO BACK AGREEMENT BETWEEN PESCO  
& CPPA-G LTD.

I am directed to refer to the meeting held on 26<sup>th</sup> July 2017 on the subject cited above  
with Additional Secretary (P), MoWP in chair and to enclose herewith minutes of the meeting for  
information and further action.

Encl: As Above

(M. Aurangzaib Durrani)  
Section Officer (Ent)  
Ph: 051-9103995

Cc:

SPS to the Additional Secretary (P), MoWP.  
PS to the Joint Secretary (E&D), MoWP.

**MINUTES OF MEETING HELD ON 26TH JULY 2017  
REGARDING EVACUATION OF ELECTRICITY FROM 708 MW RIALI-II  
HYDROPOWER PROJECT THROUGH 33 KV NETWORK IN AJK AND BACK TO BACK  
AGREEMENT BETWEEN PESCO & CPPA-G LTD.**

**AGENDA**

A meeting was held on 26<sup>th</sup> July, 2017 at 1030 hours in the Ministry of Water and Power with Additional Secretary (P) in chair. Representatives from PESCO, PPIB, CPPA-G Ltd. and the Sponsors of Riali-II Hydropower project were present to deliberate upon the impediments in the Evacuation of Power from 708 MW Riali-II (RHPCO) (the Project). List of the Participants is at Annex-I.

**MINUTES**

**(A) Evacuation of Power**

2. The Sponsor of the Project informed that they had carried out detail interconnection study for evacuation of power from the Project at a voltage level of 33 KV and the same has been approved by PESCO and NEDC Planning Power department. PESCO vide letter No. 21772, dated 24/03/2017 to CPPA-G issued their Consent to Power Evacuation from the Project; however, CPPA-G Ltd. vide their letter No. 24943-49 dated 05.06.2017 informed PESCO that their conditions of operation & maintenance of interconnection facility by the Sponsors is not in line with NEPRA (Sale of Electric Power by Renewable Energy Companies) Guidelines, 2015 and requested PESCO to issue revised Consent in accordance with the NEPRA Guidelines. However, despite the issuance of reminders by CPPA-G they could not receive the revised consents from PESCO resulting in undue delay in filing of Power Acquisition Request to NEPRA.

3. CEO PESCO responded that due to financial constraint of PESCO and the work load of PESCO concerned directorate, they are unable to provide interconnection facility for the Project. The power generation will be in AJ&K where the maintenance of such transmission line will be a key issue to PESCO due to scarcity of resources and lack of jurisdiction; hence, it will be difficult as well as costly for PESCO to operate and maintain any such network in AJ&K. Therefore, PESCO cannot enter into any agreement pertaining to evacuation of power with RHPCO/CPPA-G Ltd. Moreover, CEO stated that PESCO has a license of NEPRA for the province of Khyber Pakhtunkhwa, thus responsible for maintenance of Network up to 132 KV within its own jurisdiction.

4. Director (Hydel), PPIB agreed with CEO, PESCO above statement on jurisdiction issues and informed the Chair that numerous small hydropower projects located in AJ&K as well as GB are in developmental phase and he foresee similar issues in future regarding power evacuation from these projects; therefore, an implementable/realistic solution may be formulated and adopted.

5. DGM (Tech), CPPA-G Ltd. agreed with PPIB for a robust solution to power evacuation & operation of interconnection facilities from projects like Riali-II HPP.

6. The Chair suggested that keeping in view the PESCO reluctance to provide the purchaser's interconnection facilities for the reasons mentioned above, CPPA-G Ltd. may file Project's Power Acquisition Request ("PAR") to Regulator (NEPRA) with a request that the Project Sponsors may be allowed to construct, own and operate the interconnection facilities up to the 132/11 KV Muzaffarabad (Old) Grid Station.

7. The Sponsors informed the Chair that they are willing to accept the Chair's suggestions regarding the construction, operation and maintenance of the project interconnection facilities provided

that such arrangement is agreed between CPPA-G Ltd. and the Sponsors and further approved by the Regulator. Furthermore, since PESCO is the owner of the existing / redundant 33 kV transmission line located near project site, therefore, it is requested that PESCO may issue consent to Sponsors for the utilization of the right of way (ROW) of existing / redundant 33 kV transmission line from the Project to Muzaffarabad (Old) Grid Station.

8. CEO, PESCO agreed that PESCO will issue the required consent for the utilization of the ROW to the Sponsors.

(B) Back to Back Agreement

9. The CPPA-G further informed that they have forwarded a copy of Back to Back Agreement which needs to be executed between CPPA-G and PESCO, henceforth, regarding evacuation of Power from small hydropower projects and signing of the respective EPAs. However, PESCO has not provided their feedback on the draft Back to Back Agreement, therefore, the EPA Agreement(s) for small hydros could not be signed due to the non-availability of a Back to Back agreement. The CPPA-G further informed that various other DISCOs such as MEPCO & FESCO have already agreed and signed the Back to Back Agreement with CPPA-G Ltd.

10. The CEO, PESCO agreed to finalize the Back to Back Agreement with CPPA-G Ltd.

C. Gazette Notification of NEPRA's Extension of Date of Acceptance of Upfront Tariff

11. The Sponsors of Riali-II informed the Chair that NEPRA vide their decision dated April 10, 2017 extended the date of Acceptance of Upfront Tariff for Small Hydros and intimated Ministry for the purpose of notification in the official gazette, however, the said notification is still pending. The project cannot opt for upfront tariff unless the notification is issued by the Federal Government.

12. In this regard JS (PF) informed the Chair that Ministry has sought a clarification relating to such extension of upfront tariff from the Regulator and the gazette notification will be issued once the clarification is received to this Ministry.

13. Having listened to the arguments from all the stakeholders, the Chair made the following decisions:

DECISIONS

- 1) Since the grid station does not lie within the jurisdiction of PESCO, accordingly they can't take the inventory and maintain the line. Therefore, they would like the electricity to be sold and purchased at the doorstep of Muzaffarabad (Old) Grid Station.
- 2) Riali agrees to the fact that this is an issue for PESCO and is willing to take up the construction, O&M and to shift the bus bar to the farm gates. However, they also demand that this situation may be referred to the regulator through CPPA-G who will be requested to build in the construction and O&M cost on Riali's tariff as per the law in vogue.
- 3) PESCO also demands a change in the CPPA-G Agreement specific to hydro projects especially where they are lying in the different territorial jurisdiction.



- 4) CPPA-G may file Project's Power Acquisition Request ("PAR") of the project to NEPRA within the shortest period of time.
- 5) PESCO is willing to immediately provide to the Sponsors all necessary consents and approvals for the utilization of the PESCO's Right of Way of existing/redundant 33kV transmission line from the Project up to Muzaffarabad (Old) Grid Station. PESCO will also facilitate and timely provide all the technical information that may be required by the Sponsors for the approval and implementation of the said interconnection facilities. Furthermore, the Sponsors will construct, own, operate and maintain the said interconnection facilities during the concession period that shall be agreed between the Sponsors & CPPA-G Ltd and further approved by NEPRA and are bound to transfer the said interconnection facility (from project busbar to grid station) to PESCO free of cost after the end of such concession period.
- 6) Ministry will issue the gazette notification of the Regulator's decision on the Extension of Date of Acceptance of Upfront Tariff for Small Hydro, immediately after receiving the required clarification from NEPRA.

\*\*\*\*\*

## List of Participants

S. No.	Name/Designation
	<b>Ministry of Water &amp; Power</b>
1.	Dr. Aamer Ahmad Additional Secretary (I) / M.D. PEPCO In Chair
2.	Mr. M. Zargham Eshaq Khan Joint Secretary (P&F)
3.	Mr. M. Aurangzaib Durrani SO (Entities)
	<b>PESCO</b>
4.	Engr. Shabir Ahmad Jilani Chief Executive Officer
	<b>Private Power &amp; Infrastructure Board, Ministry of Water &amp; Power</b>
5.	Engr. Munawar Iqbal Director (Hydel)
6.	Faisal Khurshid Senior Manager (Legal)
7.	Mahesh Chaudhry Sr. Manager (Hydel)
	<b>CPPA-G Ltd.</b>
8.	Ejaz Mohsin Deputy General Manager (Technical)
	<b>RHPCO</b>
9.	Syed M. H. Gardezi Director (Dev.)
10.	Syed Ali Manager



# Central Power Purchasing Agency (Guarantee) Limited



6<sup>th</sup> Floor, Shiekh-e-Ali Road, Secretariat Minnani Avenue, Blue Area, Islamabad

OFFICE OF CHIEF MANAGER (CPPA)

No. GM/CPPA(G/L/MT-III/Rail-II/SH-3)/ 2996 - 3027 Dated: 12/06/15

1. Chief Executive Officer (PESC)
2. GM Planning (Power) NTDC
3. GM System Operation (NPCC) DGL
4. DGM Finance (CPPA) NTDC
5. GM WPPG
6. CE Design NTDC
7. CE Telecom NTDC
8. CE System Protection NTDC
9. Legal Advisor NTDC
10. Syed M.H. Gardezi, Director Development (RHFCC)

Subject: 6.6MW RIAL-II SMALL HYDRO POWER PROJECT (SHPP) - MINUTES OF MEETING HELD ON 15.06.2015 TO DISCUSS PEA AND EPC STAGE TARIFF

Reference: This office letter No. CPA/MT-III/Rail-II/SHPP/2011-223 dated 08.06.2015

Please find enclosed herewith the minutes of above said meeting for your information and further necessary action please.

DA/As above

Copy to:

1. M.D. PPB MoW&P
2. D.G. PPC C&A/K

> Master File

(Engr. Mansoor Nasir)  
Chief Engineer-II, CPPI

GM (CPPA)	229-WAPDA House, Lahore, Pakistan	TEL: 42-98208315 / Fax: 42-99201179	gmcpa@ntdc.com.pk
CE II (CPPA)	5 <sup>th</sup> Floor, PIA Tower, Egerton Road, Lahore	TEL: 42-99101109 / Fax: 42-993201488	ce2cpa@gmail.com



MINUTES OF MEETING HELD ON 15.06.2015 AT CONFERENCE ROOM OFFICE OF CHIEF ENGINEER-II (PROCUREMENT) CPPA, 6TH FLOOR, PIA TOWER, EGERTON ROAD, LAHORE TO DISCUSS PPA AND ERC STAGE TARIFF PETITION OF RIALLI SMAM HYDRO POWER PROJECT (SHPP) AJ&K SPONSORED BY MS. RIALLI HYDRO POWER CORP. LTD. (RHPCO)

PARTICIPANTS

Mr. Mansoor Nasir (Chair)  
 GM (CPPA/GD)  
 Mr. Asim Abbas  
 DM Tech (CPPA/GD)  
 Mr. Bilal Hussain  
 AM Tech (CPPA/GD)  
 Mr. Habib-ur-Rahman  
 DM (Telecom) NTDC  
 Mr. Muhammad Ubaid  
 DM (System Protection) NTDC  
 Mr. Irfan Haider  
 AM (System Protection) NTDC

Mr. M. Jamshaid  
 Manager Finance (CPPA/GD)  
 Mr. Ahmad Ali Moni  
 DM (Legal) NTDC  
 Mr. Imran Sayed Khan  
 DM (Telecom) NTDC  
 Syed M. Hussain Gardizi  
 M/s. RHPCO Ltd.  
 Mr. Muhammad Ahmad  
 M/s. RHPCO Ltd.  
 Mr. Farooq Haider  
 M/s. RHPCO Ltd.  
 Mr. Zain Shahzad  
 Mr. Farid Aslam & Partners  
 (for counsel of M/s. RHPCO Ltd.)

DISCUSSION & DECISIONS

1. The chair informed the participants that the sponsors of small hydro power plants (SHPPs) have faced long delays owing to framework bottlenecks. Recently, the issuance of NEPRA guidelines and subsequent efforts to draw a back to back agreement between DISCOs and CPPA/GD has made it possible for CPPA/GD to engage SHPP sponsors as Power Purchaser. Moreover, Secretary Water & Power has instructed CPPA/GD to initiate PPA/Tariff negotiations with the sponsors while back to back agreement is being developed in parallel. In compliance to said instructions, M/s. RHPCO Ltd. has been invited to negotiate the project specific parameters of CPPA/ERC Tariff submitted by the company.

2. First of all, the ERC stage tariff petition submitted by the company was discussed. It was highlighted to participants that the submitted tariff petition developed by sponsor's consultant incorporates an energy based tariff proposal whereas the 2002 Power Policy has the provision for capacity based tariff component as well. Manager Finance, CPPA/GD supported the proposed tariff petition and stated that the provision of capacity component is only suitable for fuel based thermal power plants and may not be applied to hydro power projects where there is no requirement of initial fuel procurement. CPPA/GD further added that energy based tariff is also favored by NEPRA as depicted in its tariff determinations for SHPPs coming under Punjab government which originally requested capacity based tariffs in their tariff petitions. Sponsor was also assured regarding his concerns for hydrology risk coverage that same is available in energy based tariff schemes. The sponsor accepted the arguments but committed to present his final opinion after proper review. He however highlighted that the PPA draft as submitted in line with CPPA/GD's previous instructions is based upon 2002 power policy and thus favoring a solely energy based tariff scheme would violate policy. Upon which it was decided to discuss the matter in subsequent meetings under advisory of PEIS, WRPC and legal departments.

3. Manager Finance, CPPA/GD further highlighted that the sponsor has worked out a levelized tariff of PKR/Unit at 6.6 MW plant capacity which is higher than the one worked out by NEPRA viz. upfront tariff for SHPPs below 25 MW of 7.61 for foreign and 9.99 for locally financed SHPPs. PKR/Unit. He stated that since NEPRA owns expertise, experience and exposure in power plants, CPPA/GD would need justifications from the sponsor to validate the increased project tariff claimed by the sponsor. The chair further added that although the sponsor has a right to negotiate tariff under 2002 policy, however, by opting upfront tariff, sponsor can save

significant time period that would otherwise be needed for negotiations. He further added that NEPPRA has designated AEDB as local agency to align the present security documents for hydropower projects as per Upfront tariff provisions. Therefore, the SHPP sponsors should not fear any procedure bottlenecks while opting for upfront tariff.

The sponsor admitted the fact that the upfront tariff scheme is highly suitable for his project, however, stated that the NEPPRA's already issued upfront tariff did not incorporate useful base EPC cost parameter. Furthermore, it does not offer any COB adjustment in EPC costs, which is highly needed in the present nationwide inflation scenario. He further stated that W/SPHPCO has gone for review of the upfront tariff in NEPPRA with a detailed review petition and he is hopeful for a favorable decision within two weeks. He, however, asserted his preference for upfront tariff scheme.

In a next round, after a preliminary discussion on tariff aspects, meeting participants were briefed that the subject project is the only SHPP under OPFAGL that has an approved interconnector study and is in line to be eligible for start of PPA negotiations. It was further added that based upon the project status and present provisions of draft back-to-back agreement, the DISCO shall be responsible for providing services of design, approvals, purchaser interconnection facilities, metering and dispatch management etc. Therefore, the representatives of all concerned departments of NPDC were invited to suggest their recommendations based upon their expertise to help PESCO and OPFAGL to finalize technical aspects of PPA, tied and schedules. However, the technical aspects could not be discussed and agreed upon due to absence of representatives from PESCO and departments of design, planning and NPCC of NPDC. The chair decided to convene another session of above mentioned departments to discuss including but not limited to following aspects:

1. Dispatch related requirements of dispatch controls of DISCO, PESCO and NPDC (NPCC) needed to be added in PPA.
2. Requirements of special provisions related to telecommunication equipment to be installed at the seller and purchaser side of interconnection facilities.

Meeting was concluded upon the following actions determined against each participant:

Department	Actions
Sponsor	To present final opinion on tariff aspects.
PESCO	
Design NPDC	
Planning NPDC	To coordinate in finalization of PPA schedule aspects in subsequent sessions.
Telecom NPDC	
NPCC NPDC	
System Protection NPDC	

**AZAD GOVT. OF STATE OF JAMMU & KASHMIR  
PRIVATE POWER CELL**

AJK PDO Complex, Upper Chatter  
Housing Colony, Muzaffarabad.  
Tel: (05822) 921966  
(05822) 921685  
Fax: (05822) 921305  
mail: ajk\_ppc@hotmail.com

Ref: PPC/1431-36 /2016 Dated: 9.11.2016

F/A-3

Syed M. H. Gardezi,  
Director Development,  
Riali-Hydro Power Company (Pvt.)-Ltd.  
59E, Street # 7, I-10/3,  
Islamabad.

**SUBJECT** APPROVAL OF UPGRADATION OF INSTALLED CAPACITY FROM  
6.6 MW RIALI-II HPP TO 7.08 MW RIALI-II HYDROPOWER PROJECT

- Reference
- i) Approval of feasibility study # PPC/938-43/2014 dated 17.07.2014.
  - ii) Letter No.RHPCO/2016/056 dated 05.05.2016 vide which Power and Energy Modelling Report for the project was provided by the Sponsors.
  - iii) Meeting of Panel of Experts (POEs) dated 10.10.2016 during which the updated feasibility study was discussed/ approved.

AJK Private Power Cell (AJK PPC) is pleased to communicate approval of the Panel of Experts (POEs) for upgradation of installed capacity of Riali-II Hydropower Project from 6.6 MW to 7.08 MW based on design discharge of 2.8 m<sup>3</sup>/s and a plant factor of 61% subject to the following:

- (i) The Panel of Experts (POEs) does not take any responsibility for reliability of data, its contents and conclusions of feasibility study.
- (ii) Queries / explanation from Power Purchaser or NEPRA regarding the data, information and cost estimate would have to be provided by the Sponsors.
- (iii) AJK PPC shall not accept any responsibility whatsoever due to variations in stream hydrology.

2. The Sponsors shall ensure timely achievement of financial close under LOS already issued vide letter # PPC/374-81/2013 dated 09.04.2013.

  
Director General

Copy to:

1. Secretary Electricity/PDO, GoAJK, Muzaffarabad.(Chairman POEs)
2. Chairman NEPRA, OPF Building, G-5/1, Islamabad.
3. Managing Director, PPIB, GOP, Islamabad.
4. Chief Operating Officer, CPPA-G, Islamabad.
- Chief Executive Officer, Peshawar Electric Supply Company (PESCO).

