



Registrar

**National Electric Power Regulatory Authority**  
Islamic Republic of Pakistan

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No. NEPRA/R/SA(Tariff)/TRF-469/SHL-2019/18225-18227  
July 17, 2020

**Subject: Decision of the Authority in the matter of Tariff Proposal submitted by Sapphire Hydropower Private Limited for 150 MW Sharmai Hydropower Project (Case No. NEPRA/TRF-469/SHL-2019)**

Dear Sir,

Please find enclosed herewith the decision of the Authority (05 Pages) in the matter of Tariff Proposal submitted by Sapphire Hydropower Private Limited for 150 MW Sharmai Hydropower Project in Case No. NEPRA/TRF-469/SHL-2019, for information.

Enclosure: As above

  
17 07 20

( Syed Safer Hussain )

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

CC:

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



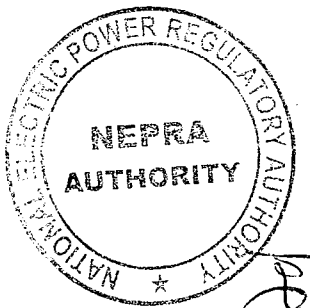
**DECISION OF THE AUTHORITY IN THE MATTER OF TARIFF PROPOSAL SUBMITTED BY SAPPHIRE HYDROPOWER PRIVATE LIMITED FOR 150 MW SHARMAI HYDROPOWER PROJECT.**

**1. BACKGROUND**

1.1 Sapphire Hydropower (Private) Limited (hereinafter referred to as the "Company" or SHL), envisages to set up an 150 MW run-of-the-river, high head hydro power project (hereinafter referred to as the "Project") at Panjkora River, District Upper Dir, Khyber Pakhtunkhwa.

1.2 The company filed a Tariff Petition for determination of tariff for the Project pursuant to rule 3 of the National Electric Power Regulatory Authority (Tariff Standards and Procedures) Rules, 1998. Salient features of the tariff proposal are as under:

Project Size	150.6 MW (Gross)
Project Configuration	3 x 50 MW (Gross at Mean Site Conditions)
Project Site	Panjhora River, District Upper Dir, Khyber Pakhtunkhwa
Construction Period	4.5 years (54 months) from Financial Close
Auxiliary Consumption	1%
Plant Factor	52.29%
Annual Generation	689.839 GWh
Feasibility-level Project Cost	USD 400.778 million
Capital Structure	80% Debt and 20% Equity
Levelized Tariff – PKR	PKR 8.4823 per kWh (Year 1-50)
Levelized Tariff - US Cents	US\$ 8.1015 per kWh (Year 1-50)



<u>Project Cost</u>	<u>US\$ Million</u>
EPC Cost	316.252
Custom Duty	3.277
<b>Total EPC Cost</b>	<b>319.529</b>
Non-EPC Cost	39.116
Lender's fee and charges	6.390
Project Cost before IDC	<b>365.035</b>
Interest during Construction (IDC)	35.742
<b>Total Project Cost</b>	<b>400.778</b>

1.3 The Proposed Project Cost and Reference Tariff is based on the following general assumptions.

- The proposed tariff being submitted is a levelized tariff of US Cents (8.1015) or Rs. (8.4823) for a 50-year term.
- Annual Plant Factor is 52.29%
  - Installed Capacity 152.12 MW
  - Auxiliary Consumption 1.521 MW
  - Contract Capacity 150.6 MW
- Construction period is of 54 months has been requested.
- Hydrological risk to be borne by Power Purchaser.
- Water usage charges of PKR 0.425 Rs. /KWh payable to GoKPK. Any increase in the rate in future shall be applicable to project tariff as well.

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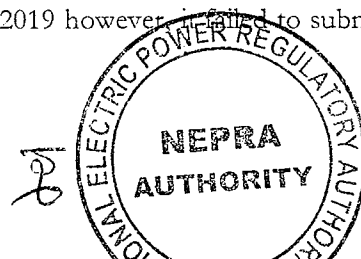


- f. Debt: Equity ratio is assumed to be 80%.
- g. Debt repayment period of 13 years with grace period of [4.5] years.
- h. Exchange rate is assumed @ PKR [104.7] per USD as per feasibility study.
- i. All corporate taxes will be treated as pass-through items.
- j. No withholding tax on supply of plant and equipment is assumed.
- k. The customs duties, taxes and cess are estimated numbers. As per NEPRA's previous tariff rulings, adjustment will be allowed in accordance with the actual expenses incurred in this behalf.
- l. No taxes or duties (including stamp duties) have been assumed on the execution of the financing documents, loan repayment, interest repayment, agency fee, commitment fee; upfront fee and fuel purchase or transportation.
- m. The tariff table shall be updated at COD in order to reflect the tariff according to prevailing CPI, WPI, KIBOR, LIBOR and exchange rate (PKR/USD).
- n. Indexations allowed as the Mechanism for Determination of Tariff for Hydropower Projects of the Authority as may be applicable from time to time.
- o. The Power Purchaser will be responsible for procuring, financing, constructing, operating and maintenance of the interconnection on the Power Purchaser side, Metering System as defined in the PPA and the Power Purchaser transmission facilities at Project site.
- p. Any non-project specific benefit/concession/incentives given to any other IPP/projects will also be given to the Company i.e. treating all IPPs equally.
- q. Any additional costs incurred to cater for any modifications or additions required by the Power Purchaser will form part of the Project cost at the EPC Stage.
- r. Tariff at EPC Stage and on COD shall reflect the actual land acquisition – and resettlement costs incurred by the Company for the purpose.
- s. No hedging cost has been assumed for exchange rate fluctuations during construction.
- t. No provision for the payment of Workers Welfare Fund and Workers Profit Participation has been made in the tariff. In case, the Company has to pay any such fund, that will be treated as pass through item in the Power Purchase Agreement.
- u. Debt service reserves, maintenance reserves are not included in tariff calculations. If required by the lenders, these will be adjusted accordingly in the tariff.
- v. Any change in applicable accounting standards which impact revenues, costs and equity IRR shall be reflected in tariff accordingly.

2. **Proceedings:**

2.1 The petition was lacking key documents such as Power Purchaser Consent, Evacuation Certificate and an approved Interconnection Study, however, the Authority admitted the Tariff Petition subject to submission of the requisite documents during the processing of the petition. Subsequently, the Company was directed to provide the requisite documents (vide letter dated October 23, 2019). The Company responded vide letter dated November 01, 2019 however, it failed to submit the requisite documents /information.

[2]

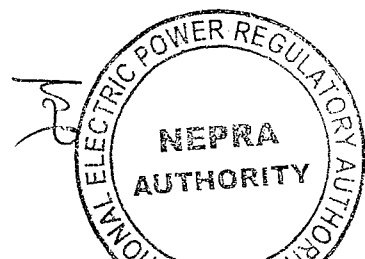




2.2 In order to give an opportunity to the Company, the Authority decided to conduct hearing, wherein issues for hearing and Notice of Admission/Hearing were published in the national newspapers on November 30, 2019. In response, written comments were received from Punjab Power Development Board vide letter No.PPDB/582/2019 dated 17<sup>th</sup> December 2019. Further a letter No. APTMA/PO/NEPRA/36/0161 dated 17<sup>th</sup> December, 2019 was also received from All Pakistan Textile Mills Association (APTMA) wherein it was stated that they will submitted an intervention request but till date, no intervention has been received at NEPRA.

2.3 On the basis of available record, following issues were framed to be considered during the hearing:

- i. Whether the project design/feasibility study has been approved by the competent Authority/forum?
- ii. Whether consent of the power purchaser and approved Interconnection Study has been obtained and whether the Project has been included in the IGCEP of NTDC or otherwise?
- iii. Whether NOCs have been obtained from the relevant Irrigation and Environmental Protection departments?
- iv. Whether the claimed plant Capacity factor of 52.29% and net annual energy of 689.839 GWh is justified?
- v. Whether the construction period of 4.5 years (54 months) is justified?
- vi. Whether the requested EPC cost of US\$ 319.529 million is justified?
- vii. Whether the requested Custom duty, import tax and Sindh Infrastructure Cess calculated at an average rate of 6.05% (Provisional cost of US\$ 3.277 million) on import of plant and equipment is justified?
- viii. Whether the requested non-EPC costs amounting to US\$ 39.116 million is justified?
- ix. Whether the Lenders Financial Fee amounting to US\$ 6.390 million is justified?
- x. Whether tariff control period of 50 years is justified?
- xi. Whether the Water Usage Charge payable to Government of Khyber Pakthunkhawa based on actual energy assumed at Rs. 0.425/kWh is justified?
- xii. Whether the claimed per annum O&M cost of US\$ 7.455 million for Fixed O&M in the ratio of 80% foreign and 20% local during operations is justified?
- xiii. Whether the claimed Insurance cost per annum for the operation period based at 1% of the EPC cost justified?
- xiv. Whether the proposed terms of 100% foreign debt financing i.e. spread of 4.6% and Interest during Construction (IDC) is justified?
- xv. Whether the Return on Equity (ROE) and Return on Equity during Construction (ROEDC) computed at 17% is justified?



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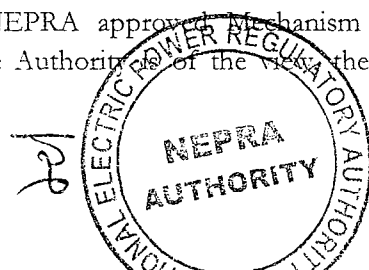


3. Hearing:

- 3.1 The hearing in the matter was held on December 18, 2019 at 10:00 AM, at the NEPRA Headquarters, Islamabad which was attended by the representatives of the Project Company, Punjab Power Development Organization, Private Power Infrastructure Board (PPIB), All Pakistan Textile Mills Associations (APTMA), National Transmission Dispatch Company (NTDC) and other stakeholders
- 3.2 Arguments heard and record perused. Having considered the respective submissions of the Company and other stakeholders present in the hearing, the findings of the Authority on the subject tariff proposal are as under:-

4. Finding of the Authority:

- 4.1 The Authority observed that the Company is not the licensee of NEPRA and accordingly the Company was asked Authority's letter dated January 02, 2020 regarding the status of Generation of Generation License, the Company vide letter dated January 24, 2020 submitted that, *"we understand that Generation license is not required for Feasibility Stage Tariff, however we will initiate the process in good faith upon Authority's instruction. Application for Generation License is under preparation which requires certain consents that will be available after the availability of updated IGCEP 2020-40. The application will be filed immediately after getting these clarifications."*
- 4.2 The Company failed to fulfill the mandatory legal requirements of filing an application for grant of generation license.
- 4.3 The Authority also noted with concern that Panel of Experts (POEs) approval of Feasibility Study of the project does not reflect detailed analysis of the study. The Feasibility Study of the project does not contain a detailed bill of quantities and corresponding costs, rate analysis of major items, item wise break down of major components and details of Tariff Reopeners. In this regard the Authority issued a letter to PEDO asking them to provide comment on the quality of Feasibility report and role of Panel of Experts in approving such a document which does not contain the essential information and also asked PEDO to comment on annual energy production based on updated hydrological data. However, PEDO response to the NEPRA letter was not considered satisfactory.
- 4.4 It may be noted that as per para 5 (5.1) of the NEPRA approved Mechanism For Tariff Determination of Tariff For Hydropower Projects, it is stated that "NEPRA will accept only such Feasibility Study which is complete and accurate and, where applicable, supported with a duly signed statement by the Panel of Experts about the quality of the Feasibility Study and performed following best international practices while satisfying the Terms of Reference. It is further stated that the Feasibility Study must include; Item-wise breakdown of major components of the project, Bill of Quantities (BOQ) and corresponding costs, capacity and energy data and tariff table(s).
- 4.5 The Authority found that role of POE is non-satisfactory and the submitted Feasibility Study is not in accordance with the stated instructions of the NEPRA approved Mechanism for Tariff Determination of Tariff for Hydropower Projects. The Authority of the Feasibility






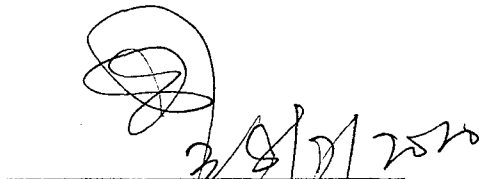
Report of the project is a fundamental document and the role of Panel of Experts is crucial and if, Panel of Experts performs only rudimentary review of this important document without detailed deliberations on the technical cum financial aspects of the project, then this may lead to major variation in the detailed design and EPC stage.

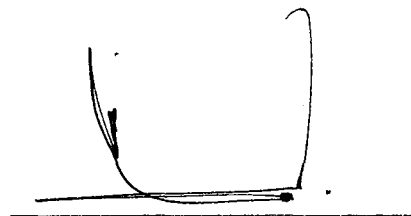
- 4.6 As the details provided in the Feasibility Study are incomplete and its quality is also not up to the mark, so an evaluation of the project on the basis of available record may not reflect the true picture of the project from technical and financial aspects. Therefore, the Authority is constrained to fully evaluate the project techno-commercially at this stage.
- 4.7 In terms of proviso to rule 16(2) of NEPRA Tariff (Standards & Procedure) Rules, 1998, in case of failure of any person to comply with directions of the Authority to provide any information or documents, the Authority may either dismiss the petition or may proceed to decide on the basis of available information. In the light of the above discussion and analysis, the Authority has decided to dismiss the petition, however, the Company may file the petition after fulfillment of deficiencies and in the manner prescribed in law.

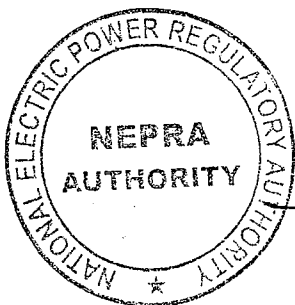
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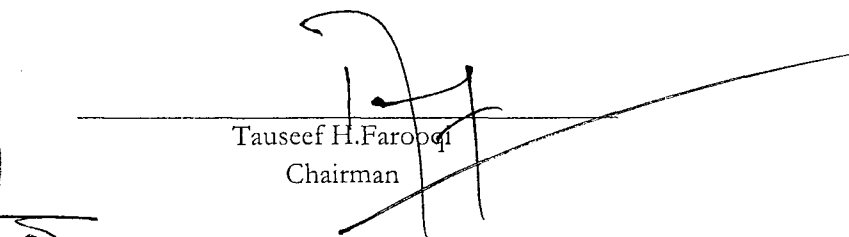
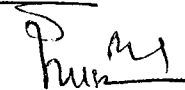
  
Saif Ullah Chattha  
Member 8.7.2020

  
Engr. Rafique Ahmed Shaikh  
Member

  
Rehmatullah Baloch  
Member

  
Engr. Bahadur Shah  
Member



  
Tauseef H. Farooqi  
Chairman  
  
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