



National Electric Power Regulatory Authority

Islamic Republic of Pakistan

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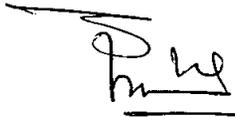
No. NEPRA/R/ADG(Trf)/TRF-539/TPJB-2020/25026-25029
May 17, 2021

Subject: Decision of the Authority in the matter of Tariff Proposal submitted by Trident Power JB (Private) Limited for 4.6 MW Ravi Hydropower Project (Case No. NEPRA/TRF-539/TPJB-2020)

Dear Sir,

Please find enclosed herewith the subject Decision of the Authority (05 Pages) in the matter of Tariff Proposal submitted by Trident Power JB (Private) Limited for 4.6 MW Ravi Hydropower Project in Case No. NEPRA/TRF-539/TPJB-2020 for information please.

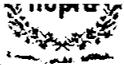
Enclosure: As above


17 05 21
(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.
3. Secretary, Ministry of Water Resources, 'Attaturk Avenue (East), Sector G-5/1, Islamabad



DECISION OF THE AUTHORITY IN THE MATTER OF TARIFF PROPOSAL SUBMITTED BY TRIDENT POWER JB (Private) LIMITED FOR 4.6 MW RAVI HYDROPOWER PROJECT.

- 1 Trident Power JB (Private) Ltd. (hereinafter referred to as the "Company" or "Petitioner"), envisages to setup 4.6 MW which is a run of canal project (" the Project") located at lower Sari Doab Canal at RD 260+000, District Okara, Punjab Province.
- 2 The Company filed a Tariff Petition for determination of generation 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 company	Trident Power Jb (Pvt) Limited
Project name	Ravi Hydropower Project
Power purchaser	Lahore Electric Supply Company (LESCO)
Project location	Lower Bari Doab Canal at RD260+000, Okara Cantt
Land area	26 Acres
Plant Life	30 years from COD
Design Discharge	170 cumecs
Gross Head	3.4 m
Net Head	3.1 m
Capacity	4.6 MW
Plant capacity factor	68.2%
Auxiliary Load	1%
Annual net energy generation @ 68.2% Plant Factor	27.2 GWh
Construction Period	24 Months
Project cost	USD in millions
EPC Cost	12.42
Land Cost	0.38
Development Cost	0.71
Insurance during construction	0.14
Lender's fee and charges	0.42
Interest during construction	0.85
Total project cost	14.92
Financing structure	Debt: 80% : Equity: 20%
Cost of Debt (SBP Financing)	6%
IRR	13%
Operations and Maintenance Cost	PKR. 1,282.002 million
Proposed Levelized Tariff (1-10 years)	Rs. 15.94/kWh US Cents 9.38/kWh
Proposed Levelized Tariff (11-30 years)	Rs. 6.078.kWh US Cents 3.576/kWh
Proposed Levelized Tariff (1-30 years)	Rs. 12.50/kWh or US Cents 7.35/kWh

- 3 According to the Petitioner, the proposed Project cost and Reference Tariff is based on the following assumptions. A change in any of these assumptions will necessitate a corresponding adjustment in the Reference Tariff:

[1]



Assumptions:

Following assumptions have been stated by the Petitioner in its tariff petition:

- The timing of drawdown of debt and equity may vary from those specified in this petition and accordingly the Project cost shall be adjusted at the time of COD as per actual. Similarly, ROE will also be updated at the time of COD.
- Adjustments in Project costs due to variation in PKR / USD will be made at the time of COD.
- Interest rates shall be adjusted as per prevailing rates considered during EPC and shall be adjusted at the time of COD.
- No Withholding taxes or any customs duties considered in the tariff preparation and will be adjusted at the time of COD as per actual.
- Attraction of withholding taxes and or advance taxes on payments to O&M and EPC Contractor is a pass through.

Pass through Items:

The petitioner has mentioned the following as pass-through items in its tariff petition:

- No withholding tax on dividend has been included in the tariff, any payment of withholding tax on dividend has been considered as pass through at the time of actual payment of dividend.
- Any sort of payments like EOBI or workers' welfare funds, pension contribution or Zakat etc.
- No tax on income of the company (including proceeds against sale of electricity to CPPAG/NTDC/DISCO) has been assumed. The corporate tax, turnover tax, general sales tax provincial sales tax all other taxes, excise duty levies, fees etc., shall be treated as the pass-through item.
- Withholding tax on debt servicing component of the tariff has not been considered.
- No hedging cost is assumed for exchange rate fluctuations during construction and all cost overruns resulting from variations in the exchange rate during construction shall be allowed as pass through.
- Any cost incurred by the Company, which is required to be incurred by Power Purchaser pursuant to provisions of PPA shall also be treated as pass through.
- If the company is required to make payment of withholding tax on debt servicing the same shall be treated as a pass-through item. The Power Purchaser shall reimburse the company the actual amount paid on this account.
- Costs incurred or suffered by the Company for any exchange in general assumptions shall be a pass-through item.

Other terms and conditions:

Following are other terms and conditions as mentioned in the subject tariff petition:

- No corporate Income Tax assumed throughout the life of the project. If any tax is payable the same shall be passed-through to the Power Purchaser.



- No sales-tax, value-added tax, federal excise duty or any other tax has been assumed for the sale of Power to the Power Purchaser. Any tax levied on the sale of power to the Power Purchaser as per law shall be billed and be payable by the Power Purchaser accordingly.
- No federal or provincial sales taxes considered on services and goods as a part of the project or operating costs. The same shall either be adjusted in the Project Cost or considered a pass-through item at actual.
- Any costs arising out of modifications/amendments by the Power Purchaser or any other governmental authority shall be considered pass-through to the Power Purchaser.

Proceedings:

- 4 The Authority admitted the tariff petition and in order to give an opportunity to the Company, the Authority decided to conduct a hearing, wherein issues for hearing and Notice of Admission/Hearing were published in the national newspapers on November 10, 2020.
- 5 On the basis of the available record, the following issues were framed by the Authority for the proceedings:
 - i. Whether the project design/feasibility study and hydrology is updated and has been approved by the competent Authority/forum?
 - ii. Whether NOCs have been obtained from the relevant Irrigation and Environmental Protection departments?
 - iii. Whether the construction period of 24 months as claimed by the Petitioner is justified?
 - iv. Whether the Plant Factor of 68.2%, annual energy of 27.2 GWh as claimed by the Petitioner are justified?
 - v. Whether the Auxiliary consumption of 1% claimed by the Petitioner is justified?
 - vi. Whether the EPC cost of Rs.2,113 million (USD 12.42 million) as claimed by the Petitioner is justified?
 - vii. Whether the Land purchase cost of Rs. 64 million (USD 0.38 million) claimed by the petitioner is justified?
 - viii. Whether the Development costs of Rs. 120 million (USD 0.71 million) claimed by the petitioner is justified?
 - ix. Whether insurance during construction of Rs. 24 million (USD 0.14) million and lender's fee and charges of Rs. 72 million (USD 0.42 million) is justified?
 - x. Whether the capital structure assumptions along with financing cost assumptions, assumed by the petitioner are justified?
 - xi. Whether the Return on Equity (ROE); 13% IRR is justified?
 - xii. Whether the Operations and Maintenance (O&M) Cost claimed by the petitioner are justified?
 - xiii. Whether the Water Use Charges as claimed by the Petitioner as a pass-through item is justified?
 - xiv. Whether the other assumptions, pass-through items and other terms & conditions as stated by the petitioner are justified?
 - xv. Whether the proposed tariff of Rs 15.94/kWh (US cents 9.38/kWh) for 1-10 years and Rs. 5.66 kWh (3.33/kWh US cents) for 11-30 years based on energy and capacity payment is justified?



Hearing:

- 6 The hearing in the matter was held on November 24, 2020, at NEPRA Headquarters, Islamabad which was attended by the representatives of the Project Company, Punjab Power Development Board (PPDB), Central Power Purchasing Agency Guarantee Limited (CPPA-G) and other stakeholders.
- 7 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:-
- 8 The Authority observed that the claimed Project cost which works out to be USD 3.24 million per MW and the resultant tariff of Rs. 12.50 per kWh or US Cent 7.35 per kWh is on the higher side, therefore, the Authority during the hearing directed the Petitioner to submit revised feasibility duly approved by the Panel of Experts (PoE) of Punjab Power Development Board (PPDB). A letter was also sent in this regard on December 04, 2020, wherein the Petitioner was required to submit the analysis/comparison of the claimed projects costs with similar hydropower projects and other technology projects to justify the claim that the instant project is the cheapest along with the revised feasibility study duly approved by the PoE of the PPDB. In response, the Petitioner vide letter dated December 14, 2020, submitted the following comparative table with 4 HPPs namely Kathai-II (8 MW), Riall-II (7MW), Pakpattan (2.82 MW) and Jabori (10.2 MW).

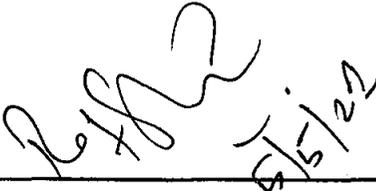
Description	Plant Capacity MW	EPC Cost (USD Million)	USD Million/MW
Ravi	4.6	12.43	2.70
Kathai-II	8	22.352	2.79
Riali-II	7.08	17.06	2.41
Pakpattan	3.3	10.64	3.22
Jabori	10.2	28.23	2.77

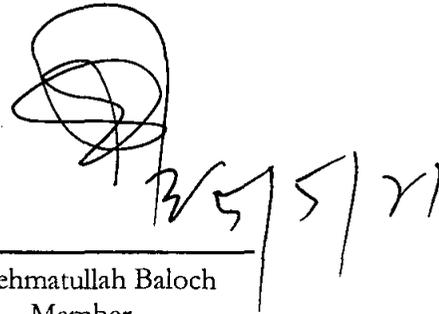
- 9 The Authority noted that the tariffs of Kathai-II and Raili –II were awarded two and half year back in November 2018 with the approved EPC cost of USD 2.1 million per MW as against USD 2.79 million per MW (Kathai-II) and USD 2.41 million per MW (Rialli-II) shown in above-mentioned table. Similarly, the Pakpattan project approved cost is also different from what is being submitted in the comparison table. It is also pertinent to mention that Pakpattan project tariff was approved six years ago in February 2015 which is not a recent project to be compared with Petitioner's Ravi project. In the opinion of the Authority, out of the Petitioner's selected projects, comparison with Jabori HPP seemed more relevant as it was awarded tariff recently in December 2020. However, in case of Jabori HPP being developed by Pakhtunkhwa Energy Development Organization (PEDO) Government of KPK, the Petitioner took PEDO's requested EPC cost of USD 28.23 million or USD 2.77 million per MW for comparison as at that time the decision in the case of Jabori was not issued wherein an EPC cost of USD 17.80 million or USD 1.6 million per MW was approved.
- 10 Subsequently, on January 26, 2021, Petitioner submitted a feasibility study revalidated by PoE of PPDB wherein no reduction in the project's cost and tariff was made.
- 11 The Authority noted with concern that despite providing an opportunity of rationalizing the higher cost, the Petitioner failed to substantiate it stance as per the compliance of the Authority's directions. The Authority noted that if the requested tariff of Rs 12.50/ kWh is compared with recently allowed PEDO's HPPs tariff by assuming an overall PKR to USD exchange rate of 160, then it is revealed that the claimed tariff is prohibitively expensive as tabulated below:

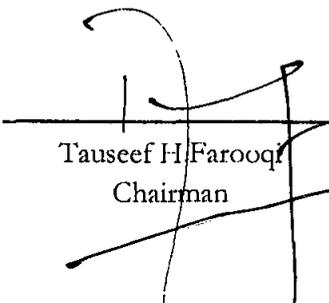
Description	Jabori	Karora	Koto	Lawi	Ravi
Capacity MW	10.2	11.8	40.8	69	4.6
Location	KPK	KPK	KPK	KPK	Punjab
Project Cost USD Mill	20.59	29	91.99	134.58	15.85
USD Mill/MW	2.02	2.46	2.25	1.95	3.45
Levelized Tariff (30 years)	Rs. 5.35/kWh	Rs. 7.29/kWh	Rs. 7.58/kWh	Rs. 6.78/kWh	Rs. 12.50/kWh
	USD Cents. 3.34/kWh	USD Cents. 4.55/kWh	USD Cents 4.74/kWh	USD Cents 4.24/kWh	USD Cents 7.81/kWh

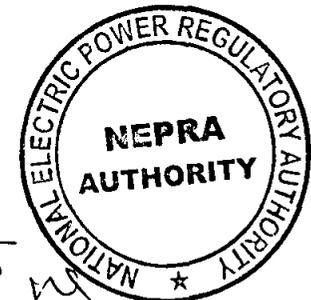
12 The above PEDO projects are near completion and the Petitioner's project is at the stage of feasibility which means going forward, the requested tariff is expected to increase further at EPC stage. In view of the above, the Authority has decided to dismiss the petition, however, the Company may file a fresh petition in the manner prescribed in law.

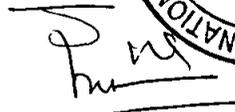
AUTHORITY


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