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Islamic Republic of Pakistan


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No. NEPRA/TRF-100/PEDO(BKHP)-2018/2654-5
February 19, 2018

Subject: ORDER IN THE MATTER OF APPROVAL OF BID EVALUATION
REPORT SUBMITTED BY THE PAKHTUKHWA DEVELOPMENT
ORGANIZATION (PEDO) FOR 96 MW BATAKUNDI HYDROPOWER
PROJECT

Please find enclosed herewith the order of the Authority (11 pages) in the subject matter for information and necessary action.

Enclosure: As above


F 02 18
(Syed Safeer Hussain)

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Pakhtunkhwa Energy Development Organization (PEDO)
Government of Khyber Pakhtunkhwa
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CC: Secretary, Energy and Power Department, Government of Khyber Pakhtunkhwa,
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ORDER IN THE MATTER OF APPROVAL OF BID EVALUATION REPORT SUBMITTED BY THE PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION (PEDO) FOR 96MW BATAKUNDI HYDROPOWER PROJECT

BACKGROUND

1. This Order shall dispose of the bid evaluation report filed by PEDO for the 96MW Batakundi Hydropower Project
2. Brief facts of the case are that the Government of Khyber Pakhtunkhwa (the "GoKP") through the Pakhtunkhwa Energy Development Organization (hereinafter referred to as "PEDO" or the "Relevant Agency") intends to implement the 96MW Batakundi Hydropower Project (HPP) (the "Project") under the KP Hydropower Policy 2016 (the "Policy"). The Project is to be developed as an Independent Power Producer ("IPP") on a Build-Own- Operate-Transfer (BOOT) basis. The Project is located on the Kunhar River, with the powerhouse located approximately a kilometer downstream of the Batakundi Village, falling within in District Mansehra of KP Province.
3. The project history provided by PEDO has highlighted that comprehensive inventory studies for identification of hydropower potential in the mountainous areas of KP has been carried out by the GoKP, represented by the then Pakhtunkhwa Hydel Development Organization (PHYDO). For the purposes of carried out feasibility studies, PEDO conducted international competitive bidding in 2011 for selection of Consultant. As a result, a consortium of consultants led by Mirza Associates Engineering Services (Pvt.) Ltd. (MAES) was selected for implementation of the Feasibility Study of Batakundi HPP. The Consultants carried out their services for two years, from June 2012 to October 2014, and prepared the bankable Feasibility Study Report of the Project.
4. Under the initiative, the Project and 5 other sites were identified by PEDO for the development of hydropower projects. These projects shall contribute 518 MW in total to the national grid. Accordingly, PEDO simultaneously processed these projects for award of tariff through competitive bidding. On 12th February 2016, PEDO's BoD decided to advertise the following Six (6) Solicited Hydropower Projects for development in Private Sector on BOOT basis as per KP Hydropower Policy 2016:

Sr. No	Description	MW	Location
1	NARAN	188	Kunhar River Kaghan Naran
2	SHIGO KAS	102	Panjhora River, District Lower Dir
3	ARKARI GOL	99	Arakari, District Chitral
4	BATAKUNDI	96	Batakundi, District Mansehra
5	GHORBAND	20.6	Ghorband, District Shangla
6	NANDIHAR	12.3	Nandihar Khawar, District Battagram
Total		518	

5. PEDO proceeded to develop a generic Request For Proposal (RFP) applicable for all six of the above projects, and submitted the same for approval to the Authority. Approval of the RFP, with certain amendments, was granted by the Authority, on 26-10-2016, under



the National Electric Power Regulatory Authority Competitive Bidding Tariff (Approval Procedure) Regulations, 2014 (the "CBTR 2014"). Subsequently, vide letters dated 14-11-2016 and 03-04-2017, the Authority further approved amendments to the RFP on the subjects of sharing of spread (in case of lower negotiated spreads with lenders) and assessment of custom duties and cess. Further clarifications were also provided to PEDO on other matters, including geological risk mitigation through reopeners.

6. The Authority, thereby, approved PEDO's RFP to undertake competitive bidding of the above-mentioned six hydropower projects in accordance with the provisions of the CBTR 2014. The Authority did not issue a Benchmark tariff on the condition that NEPRA reserved the right to reject PEDO's recommended successful bidder where the quoted rate is found to be imprudent or unreasonable, as provided under Regulation 5 of the CBTR 2014.
7. PEDO then proceeded with the competitive bidding process and called for bids for all six projects. Upon receiving and processing of all bids, PEDO proceeded to submit the Bid Evaluation Reports to the Authority for approval, including the Bid Evaluation Report for the Project on 19-10-2017. Further information and documents-in-support were sought by the Authority, vide letter dated 08-12-2017. Revised documents were then sent by PEDO on 26-12-2017.

THE PROCESS

8. As per the information submitted by PEDO, notice of invitation of bids for the Project was published in two international newspapers and one local newspaper, from 18-03-2016 till 11-04-2016. In response, seventeen registrations were made with PEDO by interested parties and the same quantity of Pre-Qualification Documents ("PQDs") were purchased. Subsequently, fifteen Proposals/Statement of Qualifications ("SOQs") were submitted to PEDO by private sponsors.
9. An independent consultant, namely Baker Tilly Mehmmod Idrees Qamar, was hired by PEDO for the evaluation of the submitted proposals. After detailed evaluation of the proposals in light of the criteria and provisions of the PQDs, ten out of fifteen applicants were successfully pre-qualified. The following provides details of all proposals submitted to PEDO for the Project:-

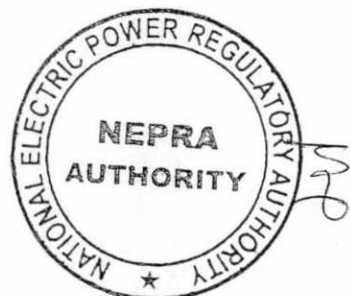


Investor's Details		Registration & Pre-Qualification Details				
Company / Firm Name		Date of Registration	Date of Purchase of PQDs	Last Date for Submission of SOQs	Date of Submission of SOQs	Pre-Qualified or Not (remarks)
1	M/S Siddiquesons	21-Mar-2016	18-Mar-2016	14-Jun-2016	13-Jun-2016	Yes
2	M/S Orient Operating Company	22-Mar-2016	22-Mar-2016	14-Jun-2016	14-Jun-2016	No
3	M/S Aqua Power (Pvt) Ltd.	21-Mar-2016	21-Mar-2016	14-Jun-2016	13-Jun-2016	Yes
4	KAPCO	24-Mar-2016	24-Mar-2016	14-Jun-2016	12-May-2016	No
5	Noor Power (Pvt) Ltd	29-Mar-2016	29-Mar-2016	14-Jun-2016	No Submission	NA
6	M/S Asquitas	31-Mar-2016	31-Mar-2016	14-Jun-2016	13-Jun-2016	Yes
7	FWO	25-Mar-2016	25-Mar-2016	14-Jun-2016	13-Jun-2016	Yes
8	China Gezhouba	25-Mar-2016	25-Mar-2016	14-Jun-2016	14-Jun-2016	Yes
9	M/s Sachal Engineering Works	29-Mar-2016	29-Mar-2016	14-Jun-2016	No Submission	NA
10	M/s Master Textile Mills Limited	28-Mar-2016	28-Mar-2016	14-Jun-2016	14-Jun-2016	Yes
11	Sinotec Company Ltd	31-Mar-2016	31-Mar-2016	14-Jun-2016	14-Jun-2016	Yes
12	Act 2 Wind Pvt Ltd	5-Apr-2016	4-Apr-2016	14-Jun-2016	14-Jun-2016	No
13	Sapphire Textile Mills Ltd	5-May-2016	5-May-2016	14-Jun-2016	14-Jun-2016	Yes
14	DESCON ENGINEERING LTD	10-May-2016	10-May-2016	14-Jun-2016	14-Jun-2016	Yes
15	Army Welfare Trust	3-Jun-2016	3-Jun-2016	14-Jun-2016	14-Jun-2016	Yes
16	Aziz Group	9-Jun-2016	7-Jun-2016	14-Jun-2016	14-Jun-2016	No
17	Sinohydro Corporation Ltd	13-Jun-2016	13-Jun-2016	14-Jun-2016	14-Jun-2016	Yes

10. From the eleven sponsors who had purchased PQDs from PEDO, all submitted SOQs for the purposes of pre-qualification, out of which six successfully fulfilled the parameters for pre-qualification, namely:-

- i. M/s Siddiquesons
- ii. M/s Aqua Power (Pvt) Ltd
- iii. M/s Aequitas
- iv. FWO
- v. China Gezhouba
- vi. M/s Master Textile Mills Limited
- vii. Sinotec Company Ltd
- viii. Sapphire Textile Mills Ltd
- ix. DESCON Engineering Ltd
- x. Army Welfare Trust
- xi. Soorty Enterprise (Pvt) Limited

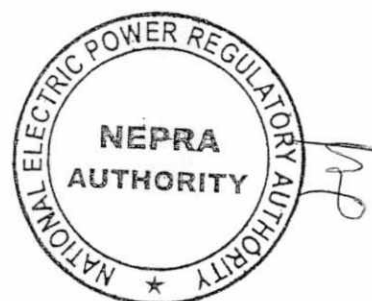
11. Subsequently, PEDO conducted competitive bidding amongst the pre-qualified sponsors in the form of a single-stage two-envelope process. Amongst the eleven pre-qualified sponsors, eight purchased the RFP. Accordingly, only two bids were received against the purchased RFPs, on 25-04-2017, by PEDO, from the following sponsors:-



- i. Army Welfare Trust (in a consortium consisting of Army Welfare Trust (AWT), Habib Rafiq (Pvt.) Limited, China Lioning Int. Economic & Technical Group Corp. and Berkeley Associates (Pvt.) Limited); and
 - ii. Soorty Enterprise (Pvt) Limited (in a consortium consisting of Soorty Enterprise Pvt. Limited, Sinohydro Corporation Limited and Engro Power Services Holding BV).
12. The bids were received under the single-stage two-envelope process, where Envelope-I comprises of the Technical Proposal and Envelope-II comprises of the Financial Bid. In accordance with clause 3.3.1 of the RFP, Envelope-I (Technical Proposal) from both bids were opened and analyzed in accordance with the responsive test laid down in the approved RFP. Both bidders fulfilled the prescribed technical qualifications. Envelope-II (Financial Bids) were then opened for both bidders by the PEDO Evaluation Committee on 24-07-2017. The contents of Envelope-II contained specified proformas, as prescribed in the RFP, and detailed evaluation of the same was to be undertaken based on the following parameters:-
- i- Project Cost Evaluation
 - ii- Evaluation of Annual Operation and Maintenance Cost
 - iii- Evaluation of Insurance Cost
 - iv- Evaluation of Financing Terms and Conditions
 - v- Evaluation of Financial Model and offered Levelized Tariff
13. The bidders provided the breakdowns of Project Cost as per the format given in the Proforma XI "Project Cost Summary" of their financial bids. The following illustrates the values furnished by PEDO in comparison to feasibility estimates:-

Bidders	Local Portion	Foreign Portion	Total Cost @ Rs. 104.7	Cost / MW
	Millions PKR	Millions USD	Equ. Millions USD	Millions USD
AWT & JV Partners	14,801.124	75.148	216.515	2.26
SOORTY & JV Partners	16,247.78	109.742	264.926	2.76
Feasibility Study estimate @ Rs. 102/US\$	-	-	189.39	1.97

Bidders	Debt : Equity %	Period years	Financing rate	
			3M KIBOR %	3M LIBOR %
AWT & JV Partners	80 : 20	10	90% of Total Local Financing 6.02% + 3% = 9.02%	0.88% + 3% = 3.88%
			10% of Total Local Financing 6.02% + 5% = 11.02%	
SOORTY & JV Partners	75 : 25	10	6.02% + 3.5% = 9.52%	0.88% + 5% = 5.88%



Components	Unit	AWT& JV Partners	SOORTY & JV Partners	Feasibility Study
Total Annual	US\$/Annum	4,220,000	2,477,912	7,750,000
O&M Cost	% of Proj. Cost	1.95%	0.94%	4.12%
Variable	%	61.61	5.0	3
O&M Cost	US\$/Annum	2,600,000	123,896	250,000
Fixed	%	38	95	97
O&M Cost	US\$/Annum	1,620,000	2,354,016	7,500,000

Components	Unit	AWT& JV Partners	SOORTY & JV Partners	Feasibility Study & RFP
Project Cost	US\$ (Million)	216.51	264.93	188.30
Cost / MW	US\$ (Million)	2.26	2.76	1.96
EPC Cost	US\$ (Million)	164.97	163.87	147.74
	% of Proj. Cost	0.78%	0.62%	0.78%
Insurance Cost	% of EPC Cost	1.00%	1.00%	1.00%
	US\$/Annum	1,691,052	1,638,716	1,477,390

EVALUATIONS OF PEDO

14. PEDO has asserted that the bid received from Army Welfare Trust is substantially responsive with respect to its completeness, competitiveness and reasonableness, and has the lowest rank due to the following reasons:
 - i. Total Project Cost quoted by Army Welfare Trust as US\$ 216.5 Million (US\$ M 2.26 / MW) is lowest among all bidders and is 14.30% higher than the estimated feasibility study total project cost of US\$ 189.39Million (US\$ M 3.83 / MW). Project Cost quoted by Soorty Enterprise is 39.88% higher than the estimated feasibility study total project cost.
 - ii. Army Welfare Trust has availed cheaper financing @ 3.88% local financing and 9.02% foreign financing as compared to 5.88% foreign financing and 9.52% local financing arranged by the other bidder Soorty Enterprise.
 - iii. Interest during Construction proposed by Army Welfare Trust is US\$ 23.9 Million which is lowest among the bidders. IDC proposed by the other bidder Soorty Enterprise stands at US\$ 41.07 Million.
 - iv. Army Welfare Trust has quoted Land and Resettlement Cost as US\$ 1.61 Million which is at par with the cost given in the feasibility study. Soorty Enterprise has proposed higher the same cost at US\$ 5.8 Million.
15. PEDO concluded that the bid received from Army Welfare Trust is lower compared to other bidders, since it offers the lowest investment cost, the lowest annual O&M cost and attractive and competitive terms of financing. The quoted tariff @ 9.5985 Rs/kWh (or 9.1676 Cents/kWh) has been calculated by PEDO using the tariff model provided by the lowest bidder (i.e. AWT & JV Partners) and is evaluated on the basis of benchmark assumptions as 9.5318 Rs/kWh or 9.1039 Cents/kWh.



16. The final calculated bid rate for both bidders is as follows:-

Bidder	Bid Rate		Evaluated Rate		Bids Ranking	Levelized Tariff
	US c/KWh	Rs/KWh	US c/KWh	Rs/KWh		
AWT and JV Partners	9.1676	9.5985	9.1039	9.5318	1st Ranked	Lowest
Soorty & JV Partners	9.9819	10.4511	11.1480	11.6720	2nd Ranked	2nd Lowest

FINDINGS OF THE AUTHORITY

17. The documents of the recommended bidder have been reviewed to ensure that they fulfill the "Responsiveness Test" relating to technical evaluation. The test provides for a checklist to ensure that the bids submitted are complete in all respects and compliant with the requirements prescribed in the RFP, including submission of Technical Data of the plant, commitment to adhere to the Minimum Technical Requirements, Proposed Project Schedule, Bid Bond, Integrity Pact etc. The recommended bidder, namely Army Welfare Trust, has furnished all this information and related documentation with its Technical Bid.
18. Upon review, the Authority required clarification on whether the values submitted by the recommended bidder are to be evaluated in gross or net terms and the maximum level of auxiliary consumption fixed for the site as per the RFP. PEDO clarified, vide letter dated 22-01-2018, that the capacity of Batakundi HPP specified in the RFP is in gross terms and that the maximum auxiliary consumption had been fixed at 1.5% during the pre-bid meetings with sponsors. A letter was presented by PEDO containing the stated information, which had been sent to pre-qualified bidders on 04-04-2017.

Bid Evaluation Report

19. Numerous inconsistencies and deficiencies have been observed by the Authority in the documents submitted by PEDO and the sponsor bids.
20. As per section 6.2 (ii) of the RFP, bidders were required to submit a "main bid" and an "alternate bid". The 'main bid' was to be submitted on the basis of capacity and energy figures given in feasibility studies. The 'alternate bid' was to contain bidder-proposed recommendations for better design and greater capacity. It has been observed that the bidder has not submitted any 'alternate bids' with its 'main bid' in contravention of section 6.2(ii) of the RFP.
21. In addition, PEDO has quoted and used net generation for the Project as 362.815GWh. However, using the RFP approved values of auxiliary consumption (1.5%), a plant factor of 43.8% and a gross capacity of 96MW, net generation is correctly computed as 363.170GWh. This figure for net generation shall be used for the purposes of this order.
22. Further still, the bid evaluation report is not strictly in the format as prescribed in the RFP and deviations therefrom have not been rationalized or explained in the report. The RFP duly approved by the Authority dictates specific benchmarks for evaluation of bids for each site, which include *inter alia* the following parameters:-



- i- Currency Exchange Rate: Pak Rs to US\$ exchange rate to be as per reference date which is defined in RFP as the date one month prior to the date of issuance of RFP i.e. 7th October, 2016 which is 104.7
 - ii- Base Interest Rates: Base LIBOR or KIBOR to be as per reference date which is 6.02% KIBOR and 0.8716% LIBOR
 - iii- Insurance Cost: The insurance cost for the minimum cover required under contractual obligations with the Power Purchaser not exceeding 1% of the EPC cost will be treated as pass through. However, if the Bidder quoted the tariff on lowest insurance figure, for example, 0.6%, then the quoted figure shall be considered as final figure and no adjustment on this account will be allowed.
 - iv- Sinosure fee: In case export credit agency fee or Sinosure fee on foreign financing is payable, the Reference Tariff quoted by the Bidder should include this export credit agency fee subject to maximum of 7% as is generally allowed by the NEPRA in tariff determinations. No adjustment in the total project capital cost will be allowed on account of Sinosure or other credit insurance fees at COD.
 - v- Custom Duties: The custom duties and cess directly imposed on the company shall be adjusted as per actual. It shall be mandatory for the bidders to account for custom duties and cess @6.05% of the quoted offshore EPC cost
 - vi- Plant factor: For levelization purpose only, the total CPP charges calculated in terms of Rs/kW/Hour (based on 100% annual plant factor i.e. equivalent to 8760 hours) shall be divided by 43.8% (plant factor), and shall be defined in terms of Rs./kWh instead of Rs./kW/Hour.
 - vii- Foreign/Mix Financing: For the purpose of evaluation only, the discount rate used for levelizing the foreign debt servicing component shall be 10% plus the annual rupee depreciation/ appreciation rate over the last 15 years against that particular foreign currency in which the loan is denominated (USD, GBP, EUR or JPY). The discount rate for evaluation purposes shall remain 10% for all other tariff components regardless of the denomination of loan.
23. In light of the foregoing, the Bid Evaluation Report submitted by PEDO has been found to not be in strict compliance with the above parameters, as prescribed in the approved RFP. However, material compliance of the same has been observed by the Authority.

Army Welfare Trust Bid

24. A clerical error has been noticed in the Army Welfare Trust's bid in Proforma VIII of the RFP. While stating net capacity (at reference hydrological condition), the bidder has transcribed 98MW instead of 94.5 MW. In addition, the bidder has transcribed a leading and lagging power factor of 0.85-0.90 in Proforma VIII, as opposed to 0.80-0.95 as prescribed in the approved RFP.
25. Further, as highlighted earlier, an incorrect figure of net generation for the Project as 362.815GWh has been used by PEDO and the same has also been used by Army Welfare Trust.



26. Further, PEDO has not redeemed the sponsors equity while computing the bidder's ROE component.
27. It is pertinent to highlight that as per the Authority's clarification, dated 03-04-2017, the correct evaluation between bidders having non PKR based financing shall be based on a discount rate of $[10\% + \text{CAGR}]$ of PKR to \$ exchange rate for the last 15 years. Relevant excerpt from the said clarification is reproduced hereunder:

"For the purpose of evaluation only, the discount rate to be used for leveling the foreign debt servicing component shall be 10% plus the annual rupee depreciation/appreciation rate over the last 15 years from the Reference date against that particular foreign currency in which the loan is denominated (USD, GBP, EUR, CNY or JPY). The discount rate for evaluation purpose shall remain 10% for all other tariff components regardless of the denomination of the loan. Moreover, for the purpose of fairness and clarity, PEDO shall provide the annual rupee depreciation/appreciation rate (based on the compounded annual growth rate (CAGR Formula) for each of the allowed currencies (USD, EUR, JPY, CNY, GBP). In case of mixed financing, the weighted average annual rupee devaluation/ appreciation rate (based on compounded annual growth rate (CAGR formula) can be applied for this purpose"

28. From the foregoing, it is evident that the Authority required PEDO to inform all bidders regarding the CAGR of each currency. It was noted that PEDO fixed the CAGR for US\$ to PKR depreciation at 3.58% and informed all bidders accordingly on 04.04.2017. Thus, foreign loans were to be calculated on a discount rate of 13.58%, rather than the standard discount rate of 10%, for the purpose of levelization. While reviewing Army Welfare Trust's bid, it has been noted that debt servicing for its foreign loan is not in accordance with the foregoing formula.
29. As such, based on the RFP defined benchmarks, the evaluated adjusted tariff for Army Welfare Trust is correctly calculated to Rs 9.4765 per kWh, against PEDO's evaluated adjusted tariff of Rs 9.5318 per kWh and Army Welfare Trust's adjusted quoted rate of Rs 9.5985 per kWh. The unadjusted tariff for Army Welfare Trust has been computed as Rs 9.2903 per kWh.

Soorty Enterprise Bid

30. It has been noted that in Soorty Enterprise's bid, no auxiliary consumption has been assumed and the calculation of tariff is based on an assumed gross capacity of 96MW as net. Owing to this, the bidder has assumed a net generation of 391.05 GWh against PEDO's evaluated figure of 362.82 GWh.
31. Further, Soorty Enterprise has proposed a mix of local and foreign finance. As a result, the bidder's tariff needs to be adjusted in accordance with the formula elaborated in paragraph 28 above.
32. As such, based on the RFP defined benchmarks, the evaluated adjusted tariff for Soorty Enterprise is correctly calculated to Rs 12.0527 per kWh against PEDO's adjusted evaluated tariff of Rs 11.6720 per kWh and Soorty's adjusted quoted tariff of Rs 10.4511 per kWh. The Unadjusted Tariff of Soorty's has been computed as Rs 11.8598 per kWh



Findings of the Authority

33. The Authority has examined and reviewed the documents and information submitted by PEDO for the purposes of approval of Bid Evaluation Report in the case of Batakundi HPP. The quoted and evaluated tariff rates of bids of Army Welfare Trust and Soorty Enterprise have been correctly recalibrated as specified above and shall be employed for the purposes of the following order.
34. Accordingly, the Authority shall rely upon the following comparative rates for ascertaining the ranking of bidders in terms of rates:-

Assumptions	AWT & JV	Soorty & JV
Capacity gross (MW)	96	96
Capacity net (MW)	94.56	96
Auxiliary consumption	1.50%	0.00%
Generation (gWh)	362.82	391.05
Plant factor	43.80%	46.65%
EPC (\$million)	169.11	163.87
Project Cost (\$million)	216.51	264.93
Project Cost (\$million per mW)	2.26	2.76
Cost of debt		
Foreign	0.8716%+3%	0.8716%+5%
Local	6.02%+ 3.%+6.02%+5%	6.02+3.5%
IRR	16%	15.50%
Capital Structure	80 20	75 25
Construction period (months)	48	51
	Rs/kWh	Rs/kWh
Tariff Proposed	9.5985	10.4511
PEDO Evaluated	9.5318	11.6720
NEPRA Evaluated	9.4765	12.0527

35. From the foregoing, it is evident that the bid received from Army Welfare Trust is decidedly lower than its competing bidders, with an adjusted tariff of Rs 9.4765 per kWh. The unadjusted rate for Army Welfare Trust amounts to Rs. 9.5318 per kWh, and Army Welfare Trust's quoted rate amounts to Rs. 9.5985 per kWh. This discrepancy has corrected, as elaborated above.
36. As such, the lowest ranked bidder in 96 MW Batakundi Hydropower project appears to be Army Welfare Trust.
37. PEDO, being the relevant agency, has submitted the instant Bid Evaluation Report for the Batakundi Hydropower Project in pursuance of Regulation 3(xi) of the CBTR 2014, for approval of the Authority and notification of successful bidder. It has been noted by the Authority that the Bid Evaluation Report prepared and furnished for approval by PEDO lacks scrupulousness and depth in terms of its analyses, and is replete with mistakes, omissions



and deficiencies. It has also been noted that this has been PEDO's first competitive bidding experience for hydropower projects, that inherently pose acute complications due to the compounding parameters involved, including complex civil works, unforeseeable geographical conditions etc. Since there is no material deviation from the RFP, the Authority, despite of the observed deficiencies, errors and omissions in PEDO's Bid Evaluation Report, hereby approves the Bid Evaluation Report and shall proceed with evaluating the rates arrived at through competitive bidding process on the benchmarks of reasonableness and prudence.

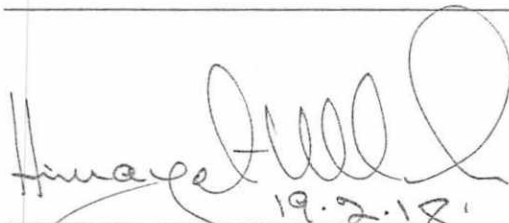
38. It is pertinent to mention at the outset that the focal point of tariff determination by the Authority through any mode i.e. competitive bidding or any other methodology, is consumer interest and welfare. Consumer interest may be defined as the maximization of consumer welfare, which includes competitive energy pricing, energy supply security and curtailment of monopolistic and predatory practices of utilities. Consumer interest is the Authority's primary concern when exercising its regulatory authority, with greater weight placed on potential risks to consumers than on potential benefits to licensees. This obligation to protect and preserve consumer interest is prescribed under the Section 7(6) of the NEPRA Act.
39. Furthermore, the National Electric Power Regulatory Authority Licensing (Distribution) Rules, 1999 place an obligation on distribution companies to procure electricity economically, with the Authority being responsible for ensuring economic procurement and rationalized consumer-end tariffs. As such, the Authority has to oversee and regulate all electricity being generated and procured, where rates have a direct impact on the consumer-end basket price for energy.
40. Under the CBTR 2014, Regulation 5 grants NEPRA the powers to reject any bidders recommended by Relevant Agencies in their competitive bidding Bid Evaluation Reports where the rates are found to be 'imprudent or unreasonable'. This benchmark of prudence and reasonableness is to be fulfilled by the rates arrived at through competitive bidding and the Authority has an obligation to evaluate the same on the basis of consumer interest, as prescribed under law and elaborated above.
41. In the instant case, the Authority needs to determine whether the rate quoted, and evaluated by PEDO and correctly computed by NEPRA, by the lowest ranked bidder, namely Army Welfare Trust, meets the benchmark of reasonableness and prudence.
42. It is a generally accepted principle that prices arrived at through the operation of market forces and competitive bidding shall yield lower rates, in comparison to regulated and discretionary price determinations. Since the Authority has not issued a benchmark tariff in the instant competitive bidding process, it will be in fitness of things to compare the Army Welfare Trust's tariff rate of Rs. 9.2903 per kWh with those of comparable hydropower project tariffs.
43. Tariffs for the 150MW Patrind Hydropower, the 102MW Gulpur hydropower and the 135MW Taunsa Hydropower Projects provide reliable points for reference in this regard. the Army Welfare Trust evaluated tariff of Rs. 9.2903 per kWh is lower than that of Gulpur by Rs. 0.21 per kWh. This difference can be accounted for by a higher IRR and LIBOR spread, of 17% and 5% respectively, in Gulpur's tariff as compared to the Army Welfare Trust. When compared to Patrind, the Army Welfare Trust's rates of Rs 9.2903 per unit of electricity is

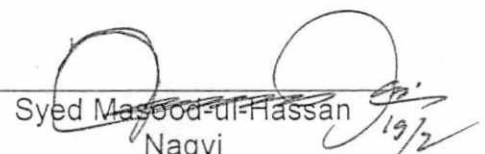


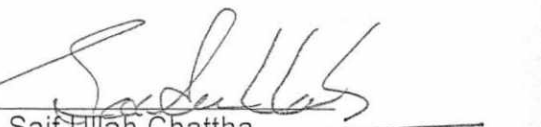
Rs 0.8 per kWh higher. It is pertinent to highlight that Patrind and Gulpur have been granted tariffs under a cost plus regime, which is generally found to have inflated rates as compared to tariffs arrived at through competitive bidding. Furthermore, there is a large difference between Taunsa and the Army Welfare Trust, with the latter being Rs. 1.88 per kWh above Taunsa's tariff. Taunsa was awarded under the CBTR 2014. By the foregoing comparisons, it is observable that the Army Welfare Trust's evaluated tariff of Rs. 9.2903 per kWh is higher than comparable projects under the CBTR 2014 and other project tariffs determined on a cost-plus basis as indicated above


44. In consideration of the foregoing, the Authority hereby finds the quoted parameters, factors, assumptions and, consequent, evaluated rate of Rs. 9.2903 per kWh to be unreasonable and imprudent. The quoted rate is thereby rejected.
45. Without prejudice to the foregoing, the Authority further provides the following general directions to PEDO, to ensure the following in all future competitive bidding processes –
- Sites with better features and technical parameters, leading to lower tariffs shall be selected first for competitive bidding;
 - Feasibility studies shall be reviewed by international and reputable consultant(s) to ensure optimized project design and higher project economies and efficiencies;
 - Site specific bidding shall be conducted without clubbing other sites, to ensure maximum participation of investors, higher competition and lower rates
 - Independent and reputable consultant(s) shall be engaged for the purposes of bid evaluation, with preference given to firms/JVs with strong technical background and experience in competitive bidding in the power sector.

AUTHORITY

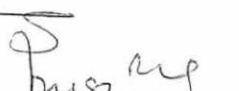

19.2.18
Himayat Ullah Khan
Member


19/2
Syed Masood-ul-Hassan
Naqvi
Member


16.2.2018
Saif Ullah Chattha
Vice Chairman


19.2.18
Brig (R) Tariq Saddozai
Chairman




19.02.18