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Islamic Republic of Pakistan

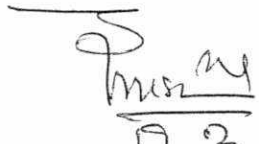
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No. NEPRA/TRF-100/PEDO(GHP)-2018/2642-4
February 19, 2018

Subject: ORDER IN THE MATTER OF APPROVAL OF BID EVALUATION
REPORT SUBMITTED BY THE PAKHTUKHWA DEVELOPMENT
ORGANIZATION (PEDO) FOR 20.6 MW GHORBAND 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


A 2 18
(Syed Safeer Hussain)

Chief Executive Officer
Pakhtunkhwa Energy Development Organization (PEDO)
Government of Khyber Pakhtunkhwa
First Floor, A-Block, Abdul Wali Khan Multiplex,
Civil Secretariat, Peshawar

CC: Secretary, Energy and Power Department, Government of Khyber Pakhtunkhwa,
First Floor, A-Block, Abdul Wali Khan Multiplex, Civil Secretariat, Peshawar

ORDER IN THE MATTER OF APPROVAL OF BID EVALUATION REPORT SUBMITTED BY THE PAKHTUNKHWA ENERGY DEVELOPMENT ORGANIZATION (PEDO) FOR 20.6MW GHORBAND HYDROPOWER PROJECT

BACKGROUND

1. This Order shall dispose of the bid evaluation report filed by PEDO for the 20.6MW Ghorband 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 20.6MW Ghorband 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 in the Khyber Pakhtunkhwa (KP) province on the Ghorband River in the Shangla District.
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 Shangla District. This initiative was supported by the Ministry of Water and Power and the Government of Pakistan (now Ministry of Energy), with the feasibility study being prepared through a joint venture of consultants, comprising of NDC, BAK and Hydro-Tech in association with LI and KEC.
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, Distirct 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, twelve registrations were made with PEDO by interested parties and the same quantity of Pre-Qualification Documents ("PQDs") were purchased. Subsequently, nine 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, five out of nine applicants were successfully pre-qualified. The following provides details of all proposals submitted to PEDO for the Project:-

Investor Details		Registration and 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
1.	M/s Markhor Energy	22-Mar-2016	22-Mar-2016	14-Jun-2016	14-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 Ghulam Rasul & Co. (Pvt) Ltd	24-Mar-2016	24-Mar-2016	14-Jun-2016	No Submission	N/a
4.	M/s Associated technologies (Pvt) Ltd	22-Apr-2016	21-Apr-2016	14-Jun-2016	14-Jun-2016	No
5.	Army Welfare Trust	5-May-2016	5-May-2016	14-Jun-2016	14-Jun-2016	Yes



6.	M/s Technician Enterprises (Pvt) Ltd	9-May-2016	9-May-2016	14-Jun-2016	No Submission	N/a
7.	Descon Engineering Ltd	10-May-2016	10-May-2016	14-Jun-2016	14-Jun-2016	Yes
8.	Power World (Pvt) Ltd	12-May-2016	10-May-2016	14-Jun-2016	No Submission	N/a
9.	Lakdhanavi Limited	31-May-2016	31-May-2016	14-Jun-2016	14-Jun-2016	Yes
10.	Power World JV	8-Jun-2016	7-Jun-2016	14-Jun-2016	14-Jun-2016	Yes
11.	M/s Hadron Solar (Pvt) Ltd	1-Jun-2016	30-May-2016	14-Jun-2016	14-Jun-2016	No
12.	Naveena Exports Limited	14-Jun-2016	14-Jun-2016	14-Jun-2016	14-Jun-2016	No

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


- i. M/s Markhor Energy
- ii. Army Welfare Trust
- iii. Descon Engineering (Pvt) Ltd
- iv. Lakdhanavi Limited
- v. Power World JV

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

- i. M/s Markhor Energy
- ii. Descon Engineering (Pvt) Ltd
- iii. Power World JV

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 all bids were opened and analyzed in accordance with the responsive test laid down in the approved RFP. All bidders fulfilled the prescribed technical qualifications. Envelope-II (Financial Bids) were then opened for the 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

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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
Power World JV	5,582	11.64	64.95	3.15
Markhor Energy	4,829	24.95	71.08	3.46
DESCON Engineering	11,684	-	111.59	5.42
Feasibility Study estimate @ Rs. 107/US\$	5,006	20.97	67.76	3.29

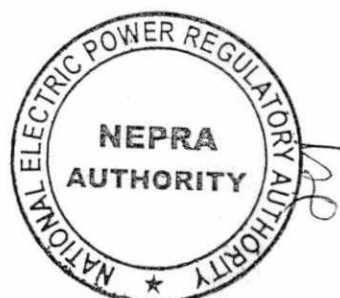
Bidders	Debt	Equity	Financing Period	Local Financing	
				(Rate, %)	Source
Power World JV	80%	20%	10 Years	6.00%	SBP Financing for small HPP's (less than 50MW)
Markhor Energy	80%	20%	10 Years	8.52%	6.02% + 2.5% (3M KIBOR)
DESCON Engineering	80%	20%	10 Years	9.02%	6.02% + 3% (3M KIBOR)

	Unit	Power World JV	Markhor Energy	DESCON Engineering	Feasibility Study
Total Annual O&M Cost	US\$/Annum	903,543	1,200,000	1,050,621	879,033
	% of Proj. Cost	1.39%	1.69%	0.94%	1.30%
Variable O&M Cost	%	30	17	25	-
Fixed O&M Cost	US\$/Annum	271,063	200,000	262,655	-
	%	70	83	75	-
	US\$/Annum	632,480	1,000,000	787,966	-

	Unit	Power World JV	Markhor Energy	DESCON Engineering	Feasibility Study & RFP
Project Cost	US\$ (Million)	64.95	71.08	111.59	67.76
EPC Cost	US\$ (Million)	51.22	53.65	87.50	47.07
	% of Proj. Cost	0.32%	0.90%	0.78%	0.69%
Insurance Cost	% of EPC Cost	0.40%	1.19%	1.00%	1.00%
	US\$/Annum	204,866	639,690	874,955	470,660

EVALUATIONS OF PEDO

14. PEDO has asserted that the bid received from Power World JV is substantially responsive with respect to its completeness, competitiveness and reasonableness, and has the lowest rank due to the following reasons:
- Total Project Cost quoted by Power World JV as US\$ 64.95 Million (US\$ M 3.15 / MW) is lowest among all bidders and is 4.15% lower than the estimated feasibility study total project cost of US\$ 67.76 Million. In comparison, the Project Cost quoted by the 2nd lowest bidder, namely Markhor Energy, is 4.90% higher than the estimated feasibility study total project cost. DESCON Engineering has quoted the



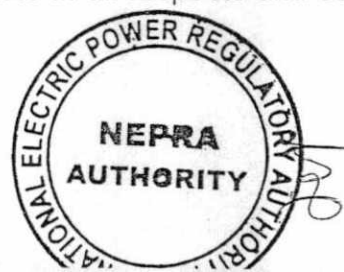
highest Project Cost, i.e. 64.68% higher than the estimated feasibility study project cost.

- ii. Total EPC Cost quoted by Power World as US\$ 155 Million is lowest among the bidders and is just 5.83% higher than the estimated feasibility study total project cost of US\$ 146.46 Million.
 - iii. Total Annual O&M Cost quoted by Power World JV as US\$ 0.903 Million is lowest among bidders and is considerably lower than the feasibility O&M cost estimate of US\$ 0.879 Million by 2.73%. The other two bidders, namely Markhor Energy and DESCON, have quoted this EPC cost as US\$ 1.2 Million and US\$ 1.05 Million respectively.
 - iv. Power World JV has availed cheaper financing @ 6.00% as compared to the rates provided by the other two bidders of 8.52% and 9.02%.
 - v. Interest during Construction proposed by Power World JV is US\$ 4.25 Million which is lowest among the bidders and is 22.83% higher than the estimated feasibility IDC of US\$ 3.46 Million. IDC proposed by other two bidders i.e. Markhor Energy is 124% higher and that of DESCON Engineering is highest i.e. 261% higher than the estimated feasibility study IDC.
 - vi. Insurance cost and Non-EPC Cost quoted by Power World JV is also lowest among the bidders.
15. PEDO concluded that the bid received from Power World JV 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 @ 8.8989 Rs/kWh (or 8.4995 Cents/kWh) has been calculated by PEDO using the tariff model provided by the lowest bidder (i.e. Power World) and is evaluated on the basis of benchmark assumptions as 9.0160 Rs/kWh or 8.6113 Cents/kWh.
16. The final calculated bid rate for the bidders is as follows:-

Bidder	Bid Rate	Evaluated Rate	Bids Ranking	Levelized Tariff
	Rs/KWh	Rs/KWh		
Power World JV	8.8989	9.0160	1st Ranked	Lowest
Markhor Energy	10.1508	10.1348	2nd Ranked	2nd Lowest
DESCON Engineering	15.2422	15.2335	3rd Ranked	3rd Lowest

FINDINGS OF THE AUTHORITY

17. The documents of the recommended bidders have been reviewed to ensure that they fulfill the "Responsiveness Test" relating to technical evaluation. The test provides for a check-list 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 Power World JV, 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 Ghorband 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 bidders have not submitted any 'alternate bids' with their 'main bids' in contravention of section 6.2(ii) of the RFP.
21. Further, 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 61.7% (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.

22. 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.

Power World JV Bid

23. As described above, evaluation of tariff by PEDO was to be conducted by taking the reference date base interest rate and bids were to be ranked on the basis of lowest spread offered from the said rate. Power World (the lowest bidder) agreed to take SBP Renewable energy financing at a fixed rate of 6%, while the reference date KIBOR is at 6.02%. Therefore, the Power World evaluation of the tariff has been made on the basis of a flat rate of 6% cost of financing, which is incorrect.
24. As such, based on the RFP defined benchmarks, the evaluated tariff for Power World JV is correctly calculated to 9.0116 per kWh, against PEDO's evaluated tariff of Rs 9.0160 per kWh and Power World's quoted rate of Rs 8.8989 per kWh. The difference between values is chiefly attributed to PEDO using a marginally lower generation value of 109.671 GWh against the value of 109.729 GWh used for evaluation.

Markhor Energy Bid

25. Upon review of Markhor Energy's tariff, it has been noticed that the value of Water use Charge of Rs. 0.4238 per kWh has been incorrectly used. The rate approved in the RFP stands at Rs 0.425 per kWh.
26. Further, Markhor Energy has assumed net generation as 109.390 GWh. PEDO has assessed net generation as 109.671 GWh, which is the value employed in their evaluated tariff for Power World. This value has then been employed for computing the debt servicing component of tariff. PEDO has however, failed to use it for computing O&M, Insurance and ROE components of tariff, where a net generation value of 109.405 GWh has been incorrectly used. Owing to this discrepancy, the O&M, Insurance, RoE and other relevant components of tariff have been calculated on different benchmark parameters as compared to Markhor Energy, which creates issues in ranking of bids.

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27. Further, it has been noted that while calculating Insurance cost during operation, a benchmark of 0.9% of Project cost has been used, while the approved RFP prescribes a value of 1% of EPC. In the instant case, the claimed Insurance cost is correctly computed at 1.0% of EPC.
28. As such, based on inconsistencies and required corrections in PEDO's evaluation, Markhor's tariff has been correctly calculated to Rs 10.0235 per kWh.

DESCON Engineering Limited Bid

29. DESCON Engineering Limited have computed their quoted tariff using a plant factor of 63.7% and auxiliary consumption as 2%. As a result, generation has been computed as 113.00 GWh. However, the assessment of O&M costs in PEDO's evaluated tariff have failed to use these figures and need corrections accordingly.
30. Lastly, for all three bidders, debt financing has been made in local currency. Therefore, debt servicing components of tariff for the bidders need not be adjusted with the revised discount rate of 10% + 3.58%. The rate of 3.58% is the Cumulative Annual Growth rate (CAGR) fixed by PEDO for such adjustments.

Findings of the Authority

31. 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 Ghorband HPP. The quoted and evaluated tariff rates from bids of Power World JV, Markhor Energy and DESCON Engineering have been correctly computed as specified above and shall be employed for the purposes of the following order.
32. Accordingly, the Authority shall rely upon the following comparative rates for ascertaining the ranking of bidders in terms of rates:-



Assumptions	Power World JV	Markhor Energy	Descon
	1st Ranked	2nd Ranked	3rd Ranked
Capacity gross (MW)	21.00	20.55	20.6
Capacity net (MW)	20.58	20.24	20.19
Auxiliary consumption	2.00%	1.50%	2.00%
Generation (gWh)	111.233	109.3907	113.000
Plant factor	61.70%	61.70%	63.70%
EPC (\$million)	51.22	53.65	87.50
Project Cost (\$million)	64.95	71.08	111.60
Project Cost (\$million per mW)	3.09	3.46	5.42
Cost of debt			
Local	6% (SBP Rate)	6.02% + 2.5%	6% (SBP Rate)+(6.02%+3%)
IRR	16.20%	15.55%	15.92%
Capital Structure	80 20	80 20	80 20
Construction period (months)	36	36	36
	Rs/kWh	Rs/kWh	Rs/kWh
Tariff Proposed by Bidder	8.8989	10.1508	14.8377
Tariff evaluated PEDO	9.0160	10.1348	15.2335
NEPRA Evaluated	9.0116	10.0235	15.2422

33. From the foregoing, it is evident that the bid received from Power World JV is decidedly lower than its competing bidders, with an tariff of Rs 9.0116 per kWh. The rate for Power World JV amounts to Rs 9.0160 per kWh, and Power World's quoted rate amounts to Rs. 8.8989 per kWh. This discrepancy has been corrected, as elaborated above.
34. As such, the lowest ranked bidder in 20.06 MW Ghorband Hydropower project appears to be Power World JV.
35. PEDO, being the relevant agency, has submitted the instant Bid Evaluation Report for the Ghorband 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.
36. 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.

37. 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.
38. 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.
39. In the instant case, the Authority needs to determine whether the rate quoted, and evaluated by PEDO and correctly calibrated by NEPRA, by the lowest ranked bidder, namely Power World JV, meets the benchmark of reasonableness and prudence.
40. 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 lowest ranked tariff rate of Rs. 9.0116 per kWh with those of comparable hydropower project tariffs. In comparison to other small hydropower tariffs awarded by the Authority, including the upfront tariff for small (1 to 25MW) hydropower plants, the lowest ranked rate is observed to be imprudently high. When compared to the approved Upfront tariff [high head local financing], after making adjustments for plant factor cost of funds, capital structure, exchange rate etc., the Rs. 9.0116 per kWh rate is approximately Rs 0.24 per kWh to Rs 0.93 per kWh higher than the generous upfront tariff rates.
41. The evaluated rate is also exorbitant based on the underlying plant factor, which is on the higher side.
42. In consideration of the foregoing, the Authority hereby finds the quoted parameters, factors, assumptions and, consequent, lowest ranked evaluated rate of Rs. 9.0116 per kWh to be unreasonable and imprudent. The quoted rate is thereby rejected.
43. 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 –
 - i. Sites with better features and technical parameters, leading to lower tariffs shall be selected first for competitive bidding;
 - ii. Feasibility studies shall be reviewed by international and reputable consultant(s) to ensure optimized project design and higher project economies and efficiencies;




- iii. Site specific bidding shall be conducted without clubbing other sites, to ensure maximum participation of investors, higher competition and lower rates
- iv. 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

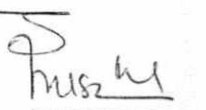

19.2.18.
Himayat Ullah Khan
Member


19/2
Syed Masood-ul-Hassan Naqvi
Member


16.2.2018
Saif Ullah Chattha
Vice Chairman


Brig (R) Tariq Saddozai
Chairman




19.02.18