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National Electric Power Regulatory Authority
Islamic Republic of Pakistan


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Subject: ORDER IN THE MATTER OF APPROVAL OF BID EVALUATION
REPORT SUBMITTED BY THE PAKHTUKHWA DEVELOPMENT
ORGANIZATION (PEDO) FOR 99 MW ARKARI GOL 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


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(Syed Safeer Hussain)

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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 99MW ARKARI GOL HYDROPOWER PROJECT

BACKGROUND

1. This Order shall dispose of the bid evaluation report filed by PEDO for the 99MW Arkari Gol 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 99 MW Arkari Gol 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 Arkari River in Chitral 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 Hydrel Development Organization (PHYDO), for the Chitral Valley. This initiative was supported by the Ministry of Water and Power and the Government of Pakistan (now Ministry of Energy), both in collaboration with the German Agency for Technical Cooperation (GTZ).
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, Distinct 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, eleven registrations were made with PEDO by interested parties and the same quantity of Pre-Qualification Documents ("PQDs") were purchased. Subsequently, eleven Proposal/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, six out of eleven 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 Siddiquesons | 21-Mar-2016 | 18-Mar-2016 | 14-Jun-2016 | 13-Jun-2016 | Yes |
| 2. | Sinotec Company Ltd | 31-Mar-2016 | 31-Mar-2016 | 14-Jun-2016 | No Submission | N/a |
| 3. | Saif Power Limited | 1-Apr-2016 | 1-Apr-2016 | 14-Jun-2016 | No Submission | N/a |
| 4. | Act 2 Wind Pvt Ltd | 5-Apr-2016 | 4-Apr-2016 | 14-Jun-2016 | 14-Jun-2016 | No |
| 5. | M/s Master Textile Mills Limited | 11-Apr-2016 | 11-Apr-2016 | 14-Jun-2016 | 14-Jun-2016 | Yes |
| 6. | Army Welfare Trust | 3-Jun-2016 | 3-Jun-2016 | 14-Jun-2016 | 14-Jun-2016 | Yes |
| 7. | Engro Powergen Limited | 13-Jun-2016 | 10-Jun-2016 | 14-Jun-2016 | 14-Jun-2016 | No |
| 8. | Fatima Group | 13-Jun-2016 | 13-Jun-2016 | 14-Jun-2016 | 14-Jun-2016 | Yes |



10. From the eleven sponsors who had purchased PQDs from PEDO, six submitted SOQs for the purposes of pre-qualification, out of which four successfully fulfilled the parameters for pre-qualification, namely:-
- M/s Siddiquesons
 - M/s Master Textile Mills Limited
 - Army Welfare Trust
 - Fatima Group
11. Subsequently, PEDO conducted competitive bidding amongst the pre-qualified sponsors in the form of a single-stage two-envelope process. Amongst the four pre-qualified sponsors, three purchased the RFP. Accordingly, only two bids were received against the purchased RFPs, on 25-04-2017, by PEDO, from the following sponsors:-
- M/s Master Textile Mills Limited
 - Fatima Group
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:-
- Project Cost Evaluation
 - Evaluation of Annual Operation and Maintenance Cost
 - Evaluation of Insurance Cost
 - Evaluation of Financing Terms and Conditions
 - 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 |
| Master Textiles | 14,907 | 81.38 | 223.76 | 2.26 |
| Fatima Group | 3,855 | 246.84 | 283.65 | 2.87 |
| Feasibility Study estimate @ Rs. 99/US\$ | - | 201 | 201 | 2.03 |

| Bidders | Debt | Equity | Financing Period | Financing | | Foreign Financing | |
|--------------------|------|--------|---------------------|--------------------------------|-----------------------------|--------------------------------|-------------------------------|
| | | | | (Rate, %) | Source | (Rate, %) | Source |
| Master Textiles | 75% | 25% | 13 Years | 3M KIBOR + 2.50% = 8.52% | Bank Al Habib Limited | 3M LIBOR + 4.75% = 5.62% | Asian Developme nt Bank |
| Fatima Group | 80% | 20% | 12 Years | 9.02% | United Bank Ltd. | - | - |



| | Unit | Master Textiles | Fatima Group | Feasibility Study |
|-----------------------|-----------------|-----------------|--------------|-------------------|
| Total Annual O&M Cost | US\$/Annum | 3,356,356 | 5,544,040 | 7,760,000 |
| | % of Proj. Cost | 1.50% | 1.95% | 3.86% |
| Variable O&M Cost | % | 0 | 17 | 13 |
| | US\$/Annum | - | 942,487 | 260,000 |
| Fixed O&M Cost | % | 100 | 83 | 97 |
| | US\$/Annum | 3,356,356 | 4,601,553 | 7,500,000 |

| | Unit | Master Textiles | Fatima Group | Feasibility Study |
|----------------|----------------|-----------------|--------------|-------------------|
| Project Cost | US\$ (Million) | 223.76 | 283.65 | 201 |
| EPC Cost | US\$ (Million) | 155 | 190.47 | 157.83 |
| Insurance Cost | % of EPC Cost | 1.00% | 0.91% | 1.00% |
| | US\$/Annum | 1,550,000 | 1,726,474 | 1,578,300 |

EVALUATIONS OF PEDO

14. PEDO has asserted that the bid received from M/s Master Textile Mills Limited & Huadong Engineering Corporation Ltd. Joint Ventures 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 Master Textiles as US\$ 223.76 Million (US\$ M 2.26 / MW) is lowest among all bidders and is 11.32% higher than the estimated feasibility study total project cost of US\$ 201 Million (US\$ M 2.03 / MW).
- ii. Total EPC Cost quoted by Master Textiles 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 Master Textiles as US\$ 3.36 Million is lowest among bidders and is considerably lower than the feasibility O&M cost estimate of US\$ 7.76 Million by 56.75%. Fatima Group proposed annual O&M cost of US\$ 5.54 Million and is 28.55% lower than the feasibility O&M cost.
- iv. Master Textiles has availed cheaper financing @ 8.52% local financing and 5.62% foreign financing as compared to 9.02% local financing arranged by the other bidder Fatima Group.
- v. Interest during Construction proposed by Master Textiles is US\$ 23.44 Million which is lowest among the bidders and is just 3.4% higher than the estimated feasibility IDC of US\$ 22.65 Million. IDC proposed by the other bidder Fatima Group is 78.63% higher than the estimated feasibility study IDC.



- vi. Insurance cost and Non-EPC Cost quoted by Master Textiles is also lowest among the bidders.
15. PEDO concluded that the bid received from M/s Master Textile Mills Limited & Huadong Engineering Corporation Ltd. Joint Ventures 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 @ 8.9823 Rs/kWh (or 8.5791 Cents/kWh) has been calculated by PEDO using the tariff model provided by the lowest bidder (i.e. Master Textiles) and is evaluated on the basis of benchmark assumptions as 8.8908 Rs/kWh or 8.5776 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 | | |
| Master Textiles | 8.5791 | 8.9823 | 8.5776 | 8.8908 | 1st Ranked | Lowest |
| Fatima Energy | 12.8845 | 13.4900 | 12.5609 | 13.1513 | 2nd Ranked | 2nd 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 Master Textiles, 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 Arkari Gol 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 43.6% (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.

Master Textile Bid

23. It has been observed that the model evaluated by PEDO depicts a levelised tariff of Rs 8.9808 per kWh, while the evaluated report recommends an evaluated tariff of Rs 8.8908 per kWh. The Authority shall resolve this inconsistency by recognizing the Rs 8.9808 per

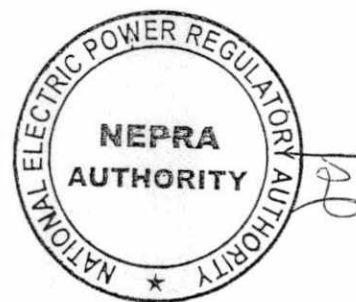


kWh PEDO evaluated levelised tariff as it preserves underlying tariff assumptions. The evaluated tariff of Rs 8.8908 per kWh shall therefore be regarded as a clerical error and be accordingly disregarded.

24. A minor reduction in net capacity quoted by Master Textile has also been observed. Master Textile has quoted a net capacity of 97.500 MW for the site, whereas, the net capacity should amount to 97.515 MW. As a result the net generation assumed by Master is marginally lower, by 372.3876 gWh. This is a negligible discrepancy, of 0.01% in terms of net capacity.
25. Master Textile has assumed 40% of its debt (Rs7.1 billion) as local and 60% (\$100 million) as foreign, with costs of debt as at [6.02% + 2.50%] and [0.8716% + 4.75%] respectively. 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% + 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 levelizing 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"

26. From the foregoing, it is evident that the Authority required PEDO to inform all bidders regarding the CAGR of each currency to be at 3.58%. 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 Master Textile's bid, it has been noted that debt servicing for its foreign loan is not in accordance with the foregoing formula. Master Textile converted its \$ based loan to PKR at average annual currency inflation of 3.58% for a 13 years debt repayment period. For levelization, Master Textile has again employed a discount rate of 10% + 3.58% and this too in the NPV portion of the levelization formula, rather than the annuity portion of the levelization formula. This effectively amounts to double counting of figures and has, consequently, reduced the tariff rate slightly.
27. Furthermore, PEDO's debt servicing analysis of Master Textile's tariff is fragmented and deficient, since references have been made in the model to external links on a separate sheet or document. Such document has not been furnished to the Authority. Apart from debt servicing, PEDO's evaluation of the Master Textile bid for components, namely O&M, insurance and ROE, are the same. The only change is that that PEDO evaluated the tariff based on the net generation of 372.4449 gWh whereas Master Textile calculated the tariff based on 372.3876 gWh of generation.



28. As such, based on the RFP defined benchmarks quoted above, the evaluated tariff for Master Textile is correctly calculated to 9.1645 per kWh, against PEDO's evaluated tariff of Rs 8.9808 per kWh and Master Textile's quoted rate of Rs 8.9823 per kWh.

Fatima Group Bid

29. Fatima's capacity and generation estimates have been observed to be in accordance with the RFP.
30. Fatima Group has assumed approximately 80% of debt (Rs19.00 billion) as local and 20% of debt (\$45.38 million) as foreign, with cost of debt as [6.02% + 3.00%] and [0.8800% + 5.00%] respectively. While reviewing Fatima Group's bid, it has been noted that debt servicing for its foreign loan is not in accordance with the clarification issued by the Authority, vide letter dated 03-04-2017, and the formula provided therein. Fatima Group has converted its \$ based loan to PKR at an average annual currency inflation of 3.58% for a 12 year debt repayment period. For levelization, a discount rate of 10% + 3.58% has been used, which essentially negates in the impact of exchange rate. Further, Fatima's Base LIBOR of 0.8800% is different from Master Textile's value of 0.8716%. For an accurate comparison, a base LIBOR of 0.8716% shall be used to evaluate Fatima's bid. Where a 0.8716 % base LIBOR rate is used, Fatima's tariff reduces by approximately Rs 0.01 per kWh, to Rs 13.4890 per kWh from 13.4900 per kWh.
31. Furthermore, Fatima has assumed an equity IRR of 17.7%, which, according to Fatima, translates to a RoE of 28.37291%. For the purposes of evaluation, PEDO has not used this exact percentage of ROE while calculating the RoE component and has instead used 28.3700%. This has resulted in a minor reduction in PEDO's evaluated RoE component.
32. PEDO's O&M and insurance components are the same as quoted by the bidder.
33. A further discrepancy has been observed PEDO's evaluation of Fatima's foreign debt servicing component. For levelization, PEDO has used a 3.58% adjustment rate in the NPV portion of the levelization formula and not in the annuity portion of the levelization formula.
34. As such, based on the benchmark quoted above, the evaluated tariff for Fatima Group is correctly calculated be 13.2483 per kWh, against PEDO's evaluated Rs 13.1513 per kWh and Fatima's quoted Rs13.4900 per kWh.

Findings of the Authority

35. 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 Arkari Gol Power. The quoted and evaluated tariff rates from bids of Fatima Group and Master Textile have been correctly recalibrated as specified above and shall be employed for the purposes of the following order.
36. From the outset, it is pertinent to highlight that the RFP requires an adjusted tariff to be submitted in case of two bidders that have proposed different currency financing, which is relevant in the instant case. This adjusted tariff is required for evaluating bids with discrepant loan breakups (foreign and local). For the purpose of evaluating and comparing the Fatima Group and Master Textiles bids, the relevant tariffs have to be



adjusted, as per the provisions of the RFP and in light of the clarification issued by NEPRA vide letter dated 03-04-2017.

37. Accordingly, the Authority shall rely upon the following comparative rates for ascertaining the ranking of bidders in terms of rates:-

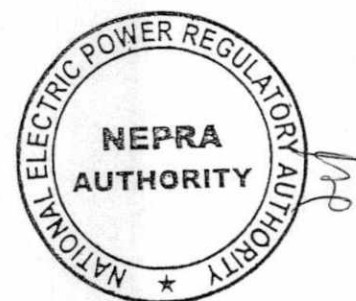
| Assumption used by the bidders | Master | Fatima |
|------------------------------------|---------------|----------------|
| Capacity gross (MW) | 99 | 99 |
| Capacity net (MW) | 97.5 | 97.515 |
| Auxiliary consumption | 1.52% | 1.50% |
| Generation (gWh) | 372.3876 | 372.445 |
| Plant factor | 43.60% | 43.60% |
| EPC (\$million) | 155.00 | 190.47 |
| Project Cost (\$million) | 223.76 | 283.638 |
| Project Cost (\$million per MW) | 2.26 | 2.87 |
| Cost of debt | | |
| Foreign | 0.8716%+4.75% | 0.88%+5% |
| Local | 6.02%+2.5% | 6.02%+3% |
| IRR | 15.00% | 17.73% |
| Capital Structure | 75 25 | 80 20 |
| Construction period (months) | 48 | 60 |
| | Rs/kWh | Rs/kWh |
| Adjusted Tariff Proposed By Bidder | 8.9823 | 13.4900 |
| PEDO Evaluated adjusted Tariff | 8.9808 | 13.1513 |
| Evaluated Adjusted Tariff | 9.1645 | 13.2483 |

38. From the foregoing, it is evident that the bid received from Master Textile is decidedly lower than its competing bidder, with an adjusted tariff of Rs 9.1645 per kWh. The unadjusted rate for Master Textile amounts to Rs 8.9391 per kWh, and Master's quoted rate amounts to Rs. 8.9404 per kWh. This discrepancy has been corrected, as elaborated above.
39. As such, the lowest ranked bidder in the 99MW Arkari Gol Hydropower project appears to be Master Textile Mills Ltd.
40. PEDO, being the relevant agency, has submitted the instant Bid Evaluation Report for the Arkari Gol 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.
41. 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.

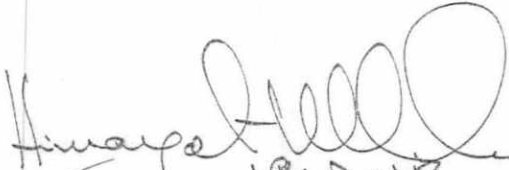
42. Furthermore, the National Electric Power Regulatory Authority Licensing (Distribution) Rules, 1999 place an obligation on distribution companies to procure electricity economically, with the Authority being responsible for ensuring economic procurement and rationalized consumer-end tariffs. As such, 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.
43. 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.
44. In the instant case, the Authority needs to determine whether the rate quoted, and evaluated by PEDO and correctly evaluated by NEPRA, by the lowest ranked bidder, namely Master Textile Mills Ltd, meets the benchmark of reasonableness and prudence.
45. 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. 8.9391 per kWh with those of comparable hydropower project tariffs.
46. Tariffs for the 150MW Patrind Hydropower, the 102MW Gulpur hydropower and the 135MW Taunsa Hydropower Projects provide reliable points for reference in this regard. Master Textile's evaluated tariff of Rs. 8.9391 per kWh is lower than that of Gulpur by Rs. 1 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 Master Textile. Alternatively, Patrind and Master Textile exhibit approximately similar rates per unit of electricity. However, similar to Gulpur, Patrind has a comparatively higher IRR of 17%. More significantly, 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 Master Textile, with the latter being Rs. 1.33 per kWh above Taunsa's tariff. Taunsa was awarded under the CBTR 2014. By the foregoing comparisons, it is observable that Master Textile's evaluated tariff of Rs. 8.9391 is higher than comparable projects under the CBTR 2014 and almost equivalent or higher to project tariffs determined on a cost-plus basis as indicated above.
47. In consideration of the foregoing, the Authority hereby finds the quoted parameters, factors, assumptions and, consequent, lowest ranked evaluated rate of Rs. 8.9391 per kWh to be unreasonable and imprudent. The quoted rate is thereby rejected.

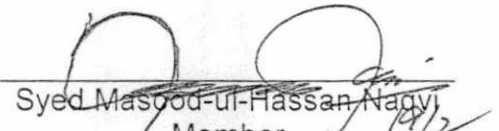


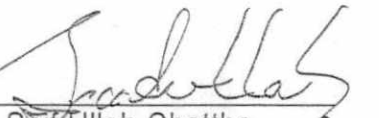
48. Without prejudice to the foregoing, the Authority further provides the following general directions to PEDO, to ensure the following in all future competitive bidding processes –

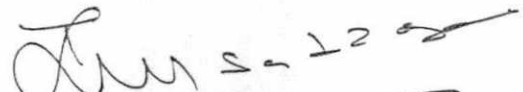
- i. Sites with better features and technical parameters, leading to a lower tariffs, shall be selected first for competitive bidding;
- ii. Feasibility studies shall be reviewed by international and reputable consultant(s) to ensure optimized project design and higher project economies and efficiencies;
- 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.

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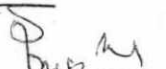

19.2.18.
Himayat Ullah Khan
Member


Syed Masood-ul-Hassan Nagvi
Member


Saif Ullah Chattha
Vice Chairman
16.2.2018


Brig (R) Tariq Sadozai
Chairman




19.02.18