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Islamic Republic of Pakistan

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No. NEPRA/Advisor(CTBCM)/RFP-04/ 7085-91

May 26, 2025

Chief Executive Officer,
K-Electric Limited (KEL),
KE House, Punjab Chowrangi,
39-B, Sunset Boulevard, Phase-II,
Defence Housing Authority
Karachi.

Subject: Decision of the Authority in the matter of Approval of Bid Evaluation Reports Submitted by K-Electric Limited (KEL) for 1x100 MWp Solar PV Project at Bela and 1x50 MWp Solar PV Project at Winder, Balochistan

Enclosed please find herewith the subject Decision of the Authority (total 11 Pages) in the matter of Approval of Bid Evaluation Reports Submitted by K-Electric Limited (KEL) for 1x100 MWp Solar PV Project at Bela and 1x50 MWp Solar PV Project at Winder, Balochistan.

Enclosure: As above

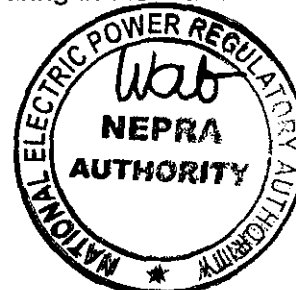
Wasim Anwar Bhinder
(Wasim Anwar Bhinder)

Copy to:

1. Secretary, Ministry of Energy (Power Division), 'A' Block, Pak Secretariat, Islamabad.
2. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
3. Secretary, Ministry of Finance, 'Q' Block, Pak Secretariat, Islamabad.
4. Secretary, Ministry of Inter Provincial Coordination, (Secretariat of Council of Common Interests), Government of Pakistan, Cabinet Block, Cabinet Secretariat, Islamabad
5. Chief Executive Officer, Central Power Purchasing Agency Guarantee Limited (CPPA-G), Shaheen Plaza, 73-West, Fazl-e-Haq Road, Islamabad
6. Managing Director, National Grid Company (NGC) of Pakistan, 414-WAPDA House, Lahore.
7. Chief Executive Officer, Independent System and Market Operator of Pakistan (the "ISMO"), Pitras Bukhari Road, Sector H-8/1, Islamabad.

Decision of the Authority in the Matter of Approval of Bid Evaluation Reports Submitted by K-Electric Limited (KEL) for 1x100 MWp Solar PV Project at Bela and 1x50 MWp Solar PV Project at Winder, Balochistan

1. In exercise of the powers conferred by Section 7(3) and 47 of the Regulation of Generation, Transmission and Distribution of Electric Power Act 1997 as amended from time to time ("**NEPRA Act**") read with Rule 17(3) (vi) of NEPRA Tariff (Standards and Procedure) Rules, 1998 ("**Tariff Rules**"), the Authority on 03 May 2017 notified the NEPRA Competitive Bidding Tariff (Approval Procedure) Regulations, 2017 ("**NCBTR-2017**" or "**Regulations**"), to lay down the procedure for approval of tariff arrived at through a competitive bidding process.
2. The instant matter stems from the Authority decision dated 29 February 2024 ("**Decision**"), passed in matter of review motion filed by K-Electric Limited ("**KEL**"). In the Decision, KEL was permitted to conduct open competitive bidding for the procurement of electricity from a 100 MWp solar PV project to be setup at Bela, Baluchistan and a 50 MWp solar PV project to be setup at Winder, Baluchistan. The above approval was granted under the NCBTR-2017.
3. KEL carried out separate competitive bidding processes for the abovementioned two projects, and in accordance with Regulation 11 of the NCBTR and paragraph 28 of the Decision, submitted the Bid Evaluation Reports ("**BERs**") to the Authority on 28 August 2024, for the approval of these BERs and the bidding process. KEL stated that upon approval of the BERs, it shall notify the successful bidder and proceed with the subsequent procedural steps.
4. Whilst NCBTR-2017 requires KEL to notify the successful bidder and submit the BER to NEPRA upon completion of the bidding process, these Regulations do not explicitly mandate approval of the BER. They provide that the Authority has the discretion to reject the tariff application filed by successful bidder, if the BER, among other reasons, is found non-compliant of the Regulations. Nonetheless, in its Decision, the Authority directed KEL to obtain approval of the BER. This directive was issued in view of the relaxation of NCBTR-2017 granted to KEL for conducting open competitive bidding, and to ensure that the additional prudency checks as prescribed by the Authority in the Decision, can be checked through BER prior to granting approval of the bid tariff.
5. KEL submitted the BERs including therewith all the information as stipulated in Regulation 11(1) of NCBTR. KEL informed that Master Textile Mills Limited ("**MTML**") emerged as the lowest responsive bidder for both projects, having successfully cleared the technical evaluation and submitted the lowest financial bids. According to KEL's submission, notification to the successful bidder shall be issued upon receipt of the Authority's approval of the BERs.
6. Upon receipt of the BERs, the Authority decided to conduct a public hearing in the matter, initially scheduled for 27 November 2024 at 02:00 PM. The public notices of the hearing were published in the national dailies 'Express' and 'The News' on 12 and 13 November 2024, respectively. Additionally, separate hearing notices were sent to KEL and other relevant stakeholders on 21 November 2024. Subsequently, the hearing was rescheduled for 11 December 2024 at 02:00 PM. The revised public notices were published in the same newspapers on 7 December 2024, and separate notices were also issued to the relevant stakeholders on 5 December 2024. Following issues were framed and approved by the Authority for public hearing in the matter:

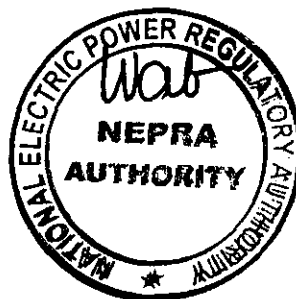


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- i. Whether the bidding process carried out by KEL was transparent and in accordance with the NCBTR 2017 and the Authority's directions in the approved RFP;
 - ii. Whether the delay in the bidding process, beyond the timelines specified under the NCBTR 2017, was justified;
 - iii. Whether KEL established adequate measures to ensure that the successful bidder remains technically qualified in case of subsequent changes in equipment and/or suppliers;
 - iv. Whether KEL complied with the Authority's directions regarding prudency checks and analysis of displacement of expensive electricity;
 - v. Whether the lowest bid tariff is prudent and reflective of prevailing market conditions.
7. The public hearing was held as per the revised schedule and attended by representatives of KEL, Private Power Infrastructure Board ("PPIB"), bidding parties, and the general public. KEL submitted written responses to the framed issues through its letter dated 19 December 2024. Additionally, written comments were also submitted by various stakeholders, including Amreli Steel, Korangi Association of Trade and Industry, Pakistan People's Party, and Ghara Solar Limited. Produced below is the summary of the submissions with respect to each issue by KEL and other parties, followed by the analysis and decision of the Authority.

Issue No. I: Whether the bidding process carried out by K-Electric Limited (KEL) is transparent and in accordance with the NCBTR-2017 and the directions of the Authority in the approved RFP or otherwise?

8. In its BERs, KEL stated that the initial prequalification process for the projects was conducted in 2021. Subsequently, in compliance with the Authority's Decision, the prequalification process was re-conducted, along with the technical evaluation, to permit the participation of new applicants, while excluding the pre-qualification process for those who had already been prequalified. According to KEL, eighteen parties were prequalified for the 50 MWp Winder project, whereas twenty applicants were prequalified for the 100 MWp Bela project.
9. The invitation to bid advertisement for the projects was published on 02 April 2024 in the following publications:
- International newspapers: China Daily, Khaleej Times, New York Times and Financial Times
 - National newspapers: Daily Dawn, Business Recorder, Express Tribune and others
 - Tendering websites: globaltenders.com and tendersinfo.com.
10. KEL submitted that it formed the Bid Evaluation Committee ("BEC"), in accordance with the NCBTR- 2017 to oversee the competitive bidding process, evaluation of bids and preparation of the BER. The BEC comprised of five members; four members of KEL and one Independent Consultant namely OMS (Pvt.) Limited ("OMS").

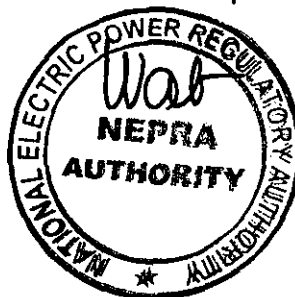


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11. KEL submitted that during the tendering process, several potential bidders submitted pre-bid clarifications, which were addressed by KEL in consultation with OMS. A consolidated document of pre-bid clarifications was subsequently prepared and circulated to all bidders by KEL on 23 July 2024 and then on 26 July 2024.
12. The prequalified bidders were required to submit the (i) bid submission letter, (ii) confidentiality agreement, (iii) form of covenant, (iv) power of attorney, (v) affidavit, (vi) letter of acceptance, and (vii) form of bid bond, and as per KEL, all the bidders were found compliant with the legal requirements.
13. On the bids' submission deadline of 31 July 2024, a total number of seven (07) bids were received for 50 MWp Winder project, and eight (08) bids were received for 100 MWp Bela project. According to KEL, BEC assessed both the technical and financial proposals and subsequently conducted bid evaluations, in accordance with RFP. OMS was the integral part of the bid evaluation process and has endorsed the technical and financial evaluation.
14. All the parties submitting the technical bids passed the technical evaluation and were decided as technically qualified. KEL informed that from the date of announcement of technically qualified bidder, any bidder feeling aggrieved by the evaluation outcome could have lodged a complaint before the Grievance Redressal Committee ("GRC") at the email address provided by the company. According to KEL, no grievance was received as all the bidders were declared as technically qualified. Lastly, MTML was evaluated as the successful bidder given it submitted the lowest bid for both projects.
15. Regarding transparency of the bidding process, KEL submitted that it has conducted the bidding process in a transparent manner ensuring that all information is communicated to all bidders and in a timely manner. KEL further informed that the RFP document was also made available on its website. Additionally, all bidders were required to register on SAP ARIBA software, for submission of soft copy of the bids. Additionally, the bidders were asked to submit the bids in the form of hard copies. All correspondences, clarifications and amendments were uploaded on the Ariba Software and/or on KEL's website.

Analysis and Decision of the Authority:

16. The Authority noted that KEL had initially indicated the possibility of equity participation in the projects, which was approved in the Decision, subject to certain directions. However, upon review of the submitted BERs, it has been noted that KEL opted not to participate in the projects, as an equity shareholder. Accordingly, the Authority's directions regarding equity participation do not apply in the present circumstances.
17. Pursuant to Regulation 9 of the NCBTR-2017 and the Authority's Decision in the matter, KEL was directed to publish public notices inviting bids for the projects in order to ensure maximum transparency and wider market participation. KEL was further required to incorporate prequalification criteria in the RFP for new prospective bidders, while exempting those already prequalified in the earlier process. KEL has submitted that it complied with these directions by

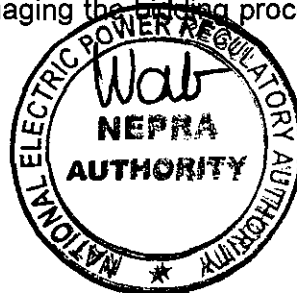


publishing advertisements for the projects on 2 April 2024, and has also prequalified two new bidders. The copies of the advertisements along with the details of pre-qualified parties were submitted by KEL.

18. The Authority, through its Decision, had directed KEL to include parameters related to sourcing of materials and CSR initiatives under the criterion of contribution towards the local economy and community welfare. KEL has confirmed that the above-mentioned components were duly incorporated in the technical evaluation, with a weightage of five percent (5%).
19. It is noted that KEL's submissions regarding the transparency of the bidding process also appear to be well-founded. The timely communication with bidders, publishing the RFP on its website, requiring both hard and soft copy submissions via SAP ARIBA, and uploading all correspondences, clarifications, and amendments on both ARIBA and its website for equal access to information, shows that the bidding process was visible and transparent.
20. In accordance with Regulation 3 of the NCBTR, 2017, KEL was obligated to appoint an Independent Consultant as part of its BEC, and KEL appointed OMS for this role. A formal endorsement and declaration from OMS was submitted, wherein the firm confirmed that it conducted an impartial and independent evaluation of the bids. The declaration further affirmed that OMS has no direct or indirect commercial, financial, or other interest with any of the qualified bidders, ensuring the integrity of the evaluation process.
21. Additionally, the Authority noted that no grievance or complaint was filed by any participating bidder during the entire bidding process before the designated GRC, and during the instant proceedings. Furthermore, all documentation, procedural steps, and disclosures required under the NCBTR-2017 were verified, and found to be in order by the Authority.
22. In light of the foregoing, the Authority is satisfied that the competitive bidding process undertaken by KEL has been carried out in a transparent manner and is in compliance with the provisions of the NCBTR-2017, as well as the directions issued by the Authority in the Decision.

Issue No. II: Whether the delay in the bidding process against the timeline specified under the NCBTR-2017 is justified?

23. KEL submitted that following NEPRA's approval of RFPs for all five renewable projects on 15 March 2024, advertisements for all the procurement of 640 MW were published on 2 April 2024, in both local and international newspapers as well as on tendering websites. During this period, KEL also sought its board approval for its equity share in the RFPs, as Authority directed it to communicate the equity share upfront in the RFPs.
24. KEL further stated that the bid submission deadline was initially set for 20 May 2024, however, multiple bidders requested extensions ranging from two (02) to six (06) months, citing compelling reasons, including (i) delays in negotiations with Chinese EPC contractors due to travel restrictions, necessitating additional time to engage with alternative contractors, and (ii) the need for extended timeframes to secure financing and finalize loan terms with foreign financiers. In view of the foregoing, KEL emphasized that managing the bidding process concurrently for five



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renewable projects totaling approximately 640 MW, negotiating the Energy Purchase Agreement ("EPA"), addressing technical and other project requirements with multiple bidders, and engaging with lenders to ensure the project's bankability necessitated an extension of the bidding process timeline. Additionally, KEL submitted that the Authority is entitled to exercise its discretion in accordance with the powers vested in it by Regulation 14(2) of the NCBTR 2017 which provide:

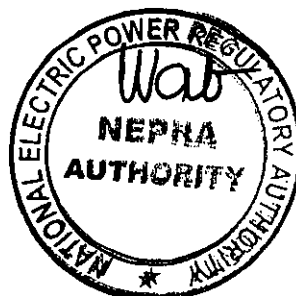
"The Authority may in a particular case, or class of cases, or if it would be in the interest of electric power services market, for reasons to be recorded in writing, relax such requirements subject to such conditions as it may deem fit."

25. Stating above, KEL requested the Authority to exercise its discretion reasonably in permitting the extension in competitive bidding process.

Analysis and Decision of the Authority:

26. Pursuant to Regulation 9(2) of the NCBTR, 2017, the relevant agency is required to complete the bidding process within three (03) months from the date of the Authority's approval of the RFP. The said regulation further permits the Authority to extend this timeline by one (01) month upon a formal request from the relevant agency.
27. In the present case, the Authority approved the RFPs for both projects on 28 February 2024, thereby establishing 27 May 2024, as the deadline for completion of the bidding process. Subsequently, KEL, through its letter dated 05 April 2024, requested an extension of the prescribed timeline under Regulation 9(2) of NCBTR-2017. The Authority acceded to the request and formally conveyed the extension to KEL on 13 May 2024, thereby revising the bidding process deadline to 27 June 2024 and directed KEL to share the same with all prequalified and prospective bidders. Later, KEL vide its letter dated 09 May 2024, had apprised the Authority of revising the bid submission timeline to 31 July 2024.
28. The Authority noted that the financial bids were opened by KEL on 19 August 2024, and the successful bidder was informed on 23 August 2024. The BER was subsequently submitted for the Authority's approval on 28 August 2024. If the date of information to the successful bidder is considered the effective date of completion of the bidding process, the process appears to have concluded approximately two (02) months beyond the extended deadline.
29. Nonetheless, the Authority has considered the submissions of KEL along with the copies of the time extension requests made by the participating bidders, indicating operational constraints faced during the bidding period. It was also observed that this is the first successful bidding round for the procurement of renewable energy happened in the country, which necessitated quite a number of clarifications required by the participating bidders. The Authority further noted that Regulation 14(2) of the NCBTR, 2017 empowers the Authority to relax any requirement of the Regulations, including timelines. This flexibility had previously been invoked by the Authority to allow time extensions in (i) Taunsa Project for giving an extension of up to five (05) months, and (ii) Category-III renewable projects for giving an extension of up to six (06) months.

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30. In light of the justifications provided by KEL, and keeping in view the past precedent under similar regulatory circumstances, the Authority finds the reasoning provided by KEL to be cogent and credible. Accordingly, the Authority hereby grants post-facto approval for the delay in the bidding process under Regulation 14(2) of the NCBTR, 2017.

Issue No. III: Whether KEL has established measures to ensure that a successful bidder remains technically qualified, in the event that the bidder makes changes to its equipment and/or suppliers?

31. KEL submitted that under Exhibit 13 of the RFP, successful bidder/SPV is required to ensure the following with respect to changes in the equipment and /or suppliers;

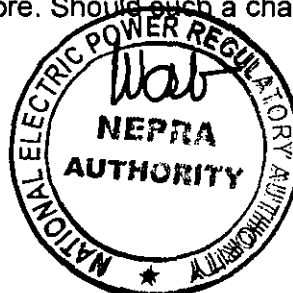
"The SPV will be required to construct the Project consistent with the technical specifications, equipment details and design parameters that are consistent with the Technical Proposal of the Successful Bidder received pursuant to this RFP and agreed with K-Electric in the EPA with the approval of NEPRA. Any variations to above that are determined to be material by K-Electric, shall result in revocation of the LOI by K-Electric and encashment of Performance Guarantee provided that K-Electric shall notify in writing to the Successful Bidder of such material deviations and allow ten (10) Business Days for rectification of such material deviations".

32. KEL further submitted that in case any changes are proposed in the equipment and /or suppliers by the bidder, KE will re-evaluate the technical scorecard of the bidder in order to ensure that the bidder be allowed to make changes only if it continues to meet the minimum technical score requirement.
33. **Gharo Solar Limited** submitted that the Authority should adopt a flexible approach to equipment and supplier specifications, as long as bidders comply with the RFP's technical criteria. In competitive bidding, bidders finalize equipment and suppliers post-award, balancing costs, timelines, regulations, and lender requirements. They emphasized that large projects rely heavily on foreign debt, with development banks imposing strict environmental and social guidelines, which can influence supplier selection.

Analysis and Decision of the Authority:

34. The Authority noted that all participating bidders met the minimum knock-out criteria stipulated in the RFP, and attained technical scores above the prescribed qualifying threshold of seventy-five (75) marks. Specifically, the successful bidder (MTLML) in both projects secured a technical score of seventy-nine and a half (79.5) out of a total of one hundred (100) marks. The bidders proposed a number of equipment and suppliers to choose from, and technical evaluation of the bidders, including the successful bidder, was carried out based on bidders' preferred configuration of equipment and supplier(s). While the successful bidder has provided different options of equipment/suppliers, there was a possibility that any post-evaluation substitution of equipment or supplier may potentially impact the technical score. Should such a change result in the technical

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score falling below the mandatory threshold of seventy-five (75), the bidder would effectively become technically disqualified, hence, this issue was framed.

35. KEL in response referred to the relevant clause in the RFP, stating that in the event of a change in equipment and/or suppliers by the successful bidder, it would re-evaluate the technical scorecard to ensure that the bidder continues to meet the minimum technical score requirement. To strengthen this aspect, the Authority directed KEL to conduct a technical evaluation of the successful bidder based on the second preferred supplier/equipment proposed by the bidder. Accordingly, KEL submitted the requisite information, confirming that the bidder met the technical score criteria also under the revised evaluation.
36. The Authority observed that multiple arrangements for selecting equipment or suppliers could arise; therefore, to uphold the integrity of the evaluation process, KEL is directed to ensure that any changes in equipment, suppliers, or other material alterations by the successful bidder do not cause the technical score to fall below seventy-five (75). A corresponding mechanism shall be incorporated within the EPA to enforce compliance with this directive.

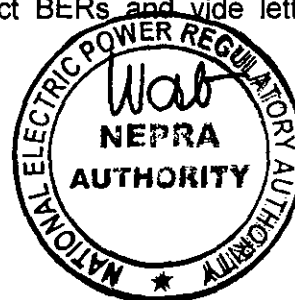
Issue No. IV: Whether KEL has complied with the directions of the Authority in the approved RFP regarding prudence check and displacement of expensive units?

Issue No. V: Whether the lowest bid tariff is prudent and reflective of prevailing market conditions?

37. KEL submitted that the financial bids of the technically qualified bidders were opened on 19 August 2024 in the presence of the representatives from KEL, OMS and bidders. The details of the tariffs bid by each bidder for each project and their rankings are tabulated as under:

50 MWp Winder			100 MWp Bela		
Lead Sponsor	Bid Tariff (PKR/kWh)	Rank	Lead Sponsor	Bid Tariff (PKR/kWh)	Rank
Master Textile Mills Limited	11.6508	1	Master Textile Mills Limited	11.2071	1
Atlas Power Limited	12.3132	2	Atlas Power Limited	12.1766	2
Oursun Pakistan Limited	13.7686	3	JCM Power Corporation	12.3057	3
Hub Power Holdings Limited	13.7975	4	Metro Group of Companies	12.3900	4
JCM Power Corporation	13.7980	5	Hub Power Holdings Limited	12.8449	5
Metro Group of Companies	14.4200	6	Oursun Pakistan Limited	13.5088	6
Hecate Global Renewables LLC	16.6839	7	Hecate Global Renewables LLC	15.8757	7
			Sapphire Electric Company Limited	16.6000	8

38. KEL informed that based on the evaluation criteria, MTML offered the lowest tariff of 11.6508 PKR/kWh (US Cents 4.0363/kWh) for 50MWp Winder project, and 11.2071 PKR/kWh (US Cents 3.8826/kWh) for 100MWp Bela project. KEL in the subject BERs and vide letter dated 19



December 2024 has informed that it has duly complied with the directions of the Authority in the approved RFP regarding prudence check and displacement of expensive units.

Prudence Check based on Macroeconomic Conditions

39. KEL informed that it has performed a prudency check on the successful bid based on the prevailing equipment costs (quotes received from equipment manufacturers) and other market conditions. The key assumptions for the assessment of prudence of bid tariff as used by KEL are as follows:

Parameters	Assumptions
Exchange Rate	288.65/USD
SOFR+ Spread	5.37%+4.5%
Foreign Debt Tenor	15 Years
KIBOR + Spread	21.28%+2.5%
Local Debt Tenor	15 Years
Capacity Factor	23%
Debt" Equity Ratio	70:30
Return on Equity	15% (USD Based)
IRR	13%
EPC Cost	USD 0.48 Mn/MW

40. KEL submitted that as per its independent assessment, the range of tariff based on 100% foreign financing and 80:20 foreign: local debt financing options, for the two projects are as under:

50 MW		100MW	
Foreign	Foreign : Local	Foreign	Foreign : Local
100%	80%:20%	100%	80%:20%
PKR 12.1917/kWh	PKR 13.5206/kWh	PKR 11.5186/kWh	PKR 12.7634/kWh
Cents 4.2237/kWh	Cents 4.6841/kWh	Cents 3.9905/kWh	Cents 4.4218/kWh

41. Based on the above analysis, KEL submitted that it is evident that the successful bid is prudent, under the criteria instructed by the Authority under Para 43 (c) of the NEPRA Decision.
42. **Amreli Steels** supported adding renewable energy to the grid at the proposed rate of PKR 12/kWh, stating that it is more economical than the marginal cost of thermal power plants and can help offset KEL's capacity costs. **The Korangi Association of Trade and Industry** highlighted that competitive bidding has achieved low tariffs of Rs. 11.6/kWh for Winder and Rs. 11.2/kWh for Bela, signaling cost effective renewable energy for Pakistan. They emphasized timely project approval to sustain investors' confidence and prevent delays that could lead to re-auctioning and higher tariffs. **The Pakistan People's Party** commended KEL for securing Pakistan's lowest tariffs of Rs. 11.65/kWh for Winder and Rs. 11.21/kWh for Bela renewable energy projects, reflecting strong investor confidence during challenging times. They emphasized that NEPRA's approval of these projects is crucial for advancing renewable energy, reducing reliance on imported fuels, and enhancing national energy security. These projects align with Pakistan's energy goals, highlight

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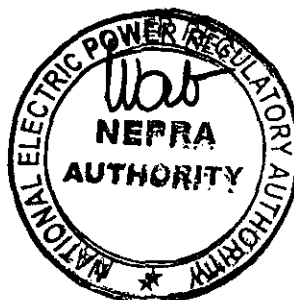
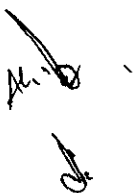
the importance of strategic partnerships, and set a benchmark for governance in the energy sector. The Party urged swift approvals to foster a sustainable and resilient energy future beyond 2030.

Analysis and Decision of the Authority:

43. The Authority in the Decision directed KEL to undertake a prudence check of the bid tariff received under the competitive bidding process. This assessment involves computing the tariff based on prevailing equipment costs while utilizing the financing and operational cost benchmarks as approved by the Authority in comparable cases, followed by a comparative analysis to evaluate whether the bid tariff is prudent. This direction was given as KEL's generation basket cost is relatively higher compared to that of CPPA-G, a tariff below 12 cents/kWh could, from a displacement perspective, justify procurement. However, such a tariff, if assessed on a standalone basis, without reference to displacement potential, would be considered unreasonably high for a solar PV project. KEL has submitted that the received bids confirm the prudence checks applied by the company, therefore, found prudent.
44. In para 22 of the said Decision, the Authority retained the right to reject any bid if it is found to be imprudent. Accordingly, the required prudence assessments were conducted again by the Authority. For that analysis, the same parameters, i.e. debt-to-equity ratio, foreign-to-local debt ratio, equity injection timelines, and drawdown patterns, as taken into account to approve indexation mechanism in the Decision, were used. The macroeconomic indices (KIBOR, SOFR, and Exchange Rate) were also maintained at approved levels, as stated in the Decision. The equipment prices, reflective of prevailing market conditions, were used. The Capacity Utilization Factor (CUF) at P50 level, derived from the solar resource assessment submitted by KEL, was taken into account. Additionally, the tariffs, earlier approved for similar-sized projects, were also taken into account.
45. Based on the foregoing assessments, the Authority observed that the tariffs discovered for the projects through the competitive bidding process adequately reflect the market conditions. Moreover, they adhere to the regulatory standards set forth by the Authority and are consistent with or lower than the tariffs approved in comparable cases. As a result, the bid tariffs are deemed to be both prudent under this check, and, therefore, are considered reasonable for approval.

Prudence Check on Displacement Analysis

46. KEL in BERs has submitted that the induction of said projects in KEL's fleet will bring savings, both in terms of cost and Forex outflow, in both National and KEL's grid by displacing the existing expensive generation. KEL submitted that unlike baseload plants which contribute to both energy and capacity requirements, renewables are intermittent in nature and contribute only to the energy requirements.
47. KEL has estimated energy cost savings due to fuel displacement at PKR 2.3 billion annually, amounting to a total of PKR 57.8 billion over the life of the projects. Additionally, the projects are estimated to generate annual FOREX savings of USD 17.01 million, totaling USD 425.2 million in savings over their lifespan.



48. According to KEL, the analysis above has been performed taking into account an average annual sent-out growth rate of 1.84%, which also accounts for the impact of rooftop solar as reflected in the solar profile. Energy and fuel prices for KE are determined using the Economic Merit Order ("EMO") for August 2024. The marginal plant for NTDC displacement has been identified as imported coal-based generation, with the marginal price also derived from the August 2024 EMO. For this analysis, KEL used a constant import from the National Grid at 1,700 MW throughout the analysis period. The technical parameters factored into the analysis encompass minimum loading, ramp rates, part-load heat rate degradation, efficiencies for both open and combined cycles, as well as plant outages.

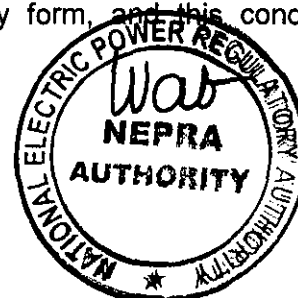
Analysis and Decision of the Authority:

49. In its Decision, the Authority directed KEL to substantiate the proposed renewable energy procurements through a comprehensive displacement analysis, demonstrating the anticipated cost savings by them through displacing high-cost generation sources, which was the primary objective for granting permission for these procurements. KEL submitted the said analysis along with the underlying assumptions. During the proceedings, the Authority instructed KEL to incorporate additional key parameters that were initially omitted from the analysis, including the projected growth in distributed solar rooftop installations and its potential impact on daytime demand profiles, the minimum generation loading requirements of thermal plants within KEL's system, and the implications of Part Load Adjustment Charges (PLAC) arising from the intermittent and non-firm nature of solar generation during daylight hours. Additionally, KEL was required to assess the cumulative impact of other planned renewable energy additions to its system.
50. KEL complied with the directives and submitted a revised displacement working reflecting these updated assumptions and parameters. The Authority noted that the revised analysis reflects a more holistic view of the system-level impact of the 150 MW renewable addition. The Authority reviewed those workings and observed that KEL had the responsibility of justifying the benefits of cost savings by procuring energy from these projects, and a sufficiently reasoned and data-supported case has been presented to justify the procurement of these projects on the grounds of displacing costlier generation, demonstrating potential savings in energy costs and FOREX outflow through the replacement of expensive generation sources with lower-cost renewable energy.

OTHER ISSUES:

51. Certain changes were made by KEL to the RFP following its approval by the Authority. The Authority noted that one of the changes was related to delay, that has already been addressed and decided upon under Issue II. The remaining modifications pertaining to switch yard, GIS, Bid Validity Period and Cabling do not constitute a deviation from or violation of the approved regulatory framework or applicable documents.
52. Nonetheless, the Authority directs KEL that any adverse financial impact resulting from the delay in execution of generation or transmission projects whether on account of KEL or the successful bidder shall not be passed on to the consumers in any form, and this condition shall be appropriately reflected in the relevant project agreements

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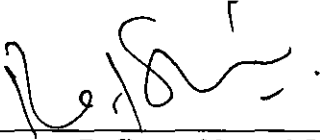


ORDER OF THE AUTHORITY

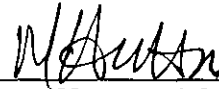
In view of the foregoing, the Authority is satisfied that the bidding process conducted by KEL complies with the applicable provisions of the NCBTR-2017 as well as the directions issued by the Authority from time to time. Given that the projects were duly optimized in the approved Indicative Generation Capacity Expansion Plan ("IGCEP") and included in the approved Power Acquisition Plan ("PAP"), the Authority hereby approves the BERs submitted by KEL in respect of its 1x100 MWp Solar PV Project at Bela and 1x50 MWp Solar PV Project at Winder, Balochistan.

This decision shall form the basis for regulatory processing of the tariff petition in accordance with the applicable laws, rules, and regulations.


AUTHORITY



Rafique Ahmed Shaikh
(Member)



Engr. Maqsood Anwar Khan
(Member)



Amina Ahmed
(Member)



Waseem Mukhtar
(Chairman)

