



National Electric Power Regulatory Authority
Islamic Republic of Pakistan

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No. NEPRA/SPVPGT-2017/2915-2917
March 3, 2017

Subject: **Decision of Authority in the Matter of Solar PV Power Generation Tariff**

Dear Sir,

Please find enclosed herewith the subject Decision of the Authority (05 pages).

2. The Decision is being intimated to the Federal Government for the purpose of notification of the approved tariff in the official gazette pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997).
3. The Order of the Authority needs to be notified in the official Gazette.

Enclosure: As above

(Syed Safer Hussain)

Secretary
Ministry of Water & Power
'A' Block, Pak Secretariat
Islamabad

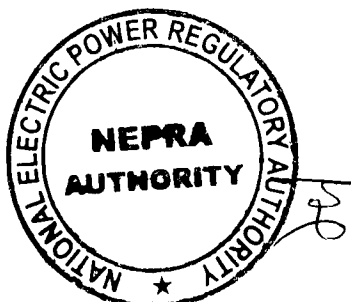
CC:

1. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
2. Secretary, Ministry of Finance, 'Q' Block, Pak Secretariat, Islamabad.



**DECISION OF THE AUTHORITY IN THE MATTER OF SOLAR PV POWER
GENERATION TARIFF**

1. National Electric Power Regulatory Authority (hereinafter referred to as the "Authority") was established under section 3 of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997 and its responsibilities under the Act include, inter alia, determination of tariff, rates, charges and other terms and conditions for supply of electric power services by Generation, Transmission and Distribution companies. In performing its functions under the Act, the Authority has to protect, as far as practicable, the interests of consumers and companies providing electric power services in accordance with the guidelines, not inconsistent with the provisions of the Act laid down by the Federal Government.
2. In order to facilitate development of power generation from solar PV, the Authority determined three upfront tariffs in the past for generation of electricity from solar PV projects. The last upfront tariff for solar PV power generation projects was determined by the Authority on December 16, 2015 that remained valid for a period of six months with effect from January 1, 2016 till June 30, 2016.
3. In order to decide whether to continue the upfront tariff regime or to shift towards competitive bidding mode, the Authority decided to initiate suo moto proceedings in exercise of its powers under the Act read with Rule 3 (1) of the National Electric Power Regulatory Authority (Tariff Standards and Procedure) Rules, 1998 (hereinafter referred to as the "Tariff Rules"). In this respect, a draft tariff proposal was developed on the basis of data and information available with the Authority to seek input from the stakeholders.
4. In line with the tariff setting process envisaged in the Tariff Rules, and with a view to arrive at a just and informed decision, notice of public hearing and salient features and parameters of the draft tariff proposal were published in the widely circulated national newspapers on June 14, 2016 inviting participation of the stakeholder through filing of intervention requests and comments. The Authority also issued separate notices to various stakeholders for filing their comments, if any, on the draft tariff proposal and the underlying assumptions.



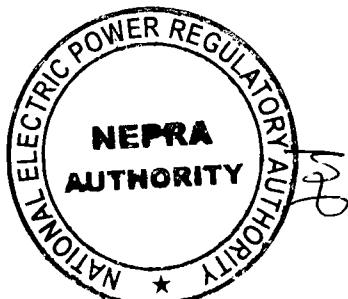
5. One of the issues framed for the proceedings was whether to determine a new upfront tariff for solar PV power projects or to determine a benchmark levelized tariff for competitive bidding by the relevant agency.
6. In response to the public notice, following stakeholders filed intervention requests and comments in the matter:

Sr. No.	Interveners	Sr. No.	Commentators
1	Bridge Factor (Private) Limited	1	Ministry of Water and Power
2	Act Solar (Private) Limited	2	Government of Sindh
3	Act2 Solar	3	Alternative Energy Development Board
4	Anwar Kamal Associates	4	Central Power Purchasing Agency
5	Metro Solar Power Limited	5	Punjab Power Development Board
6	MI Solar (Private) Limited	6	Zonergy Company Limited
7	Gul Ahmed Solar Power Limited	7	Gresham's Eastern (Pvt) Limited
8	Tesla Industries (Private) Limited	8	International Finance Corporation
		9	Asia Petroleum
		10	SINEW Associates (Private) Limited
		11	Qureshi Law Associates
		12	Scatec Solar
		13	Zhenfa Pakistan (Private) Limited
		14	TBEA SUNOASIS
		15	Gharo Solar (Private) Limited
		16	Raja Muhammad Akram & Co.
		17	Consumer Tech LC

7. Hearing in the matter was held on 21st July 2016 at NEPRA Tower Islamabad, which was overwhelmingly participated by the key stakeholders i.e. Alternative Energy Development Board, Planning Commission, Punjab Power Development Board, Energy Department Government of Sindh, Central Power Purchasing Agency (Guarantee) Limited, project developers, consultants and other stakeholders.

DISCUSSION, ANALYSIS AND DETERMINATION OF THE AUTHORITY

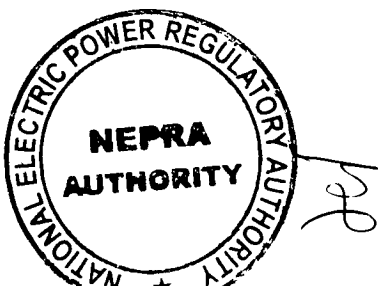
8. Majority of interveners were of the view that that reverse bidding cannot be done as sites have already been allotted and have been developed by the investors. Sudden change in policy will hamper investment in the sector. If it is to be introduced, it





should be after the current development cycle has finished. The participants further submitted that framework for competitive bidding and underlying documentation has not yet been developed and this will take substantial time. The participants also submitted that there are global examples of reverting back from competitive bidding as it hurt the market instead of improving it. AEDB and Energy Department Government of Sindh supported the idea of reverse bidding for next phase and requested to announce upfront tariff for this phase. AEDB, inter alia, submitted that the preparation of framework for competitive bidding shall take 6-8 months. CPPA-G, on the contrary, advocated that it is now the right time to introduce a benchmark tariff for competitive bidding as the sector has gained much more confidence. CPPA-G also submitted that the transfer of technology may also be encouraged in the competitive bidding process through the award of certain incentives.

9. Ministry of Water and Power (MoW&P) in its initial comments vide letter dated October 20, 2016 submitted that specific time may be allowed to AEDB for development of auction framework and in the meanwhile, NEPRA may consider announcement of upfront tariff for the same period. Subsequently, AEDB vide its letter dated December 16, 2016, inter alia, submitted that it has initiated the process of developing competitive bidding framework with the support of technical expertise available through donor agencies for which it would take 10-12 months. AEDB further submitted that the mechanism for disposal of remaining LOIs for wind and solar power projects would also be developed in the course of development of aforesaid framework.
10. Meanwhile Punjab Power Development Board vide its letter dated December 16, 2016 informed that it has invited applications for the award of land in Quaid-e-Azam Solar Park (Extension) for the development of 100 MW Solar Power Project (SPP) from those project developers who are willing to sell energy at US Cents 6/kWh or below.
11. Later, MoW&P vide its letter dated January 12, 2017 proposed that competitive bidding in reverse auction is the prudent step in the prevailing circumstances and should be followed for the existing slot as well as any future inductions for wind power projects.
12. Having considered the concerns put forth by some of the stakeholders, the Authority is not inclined to accept their argument that ~~reverse~~ bidding cannot be done as sites have already been allotted and have been developed by the investors and sudden



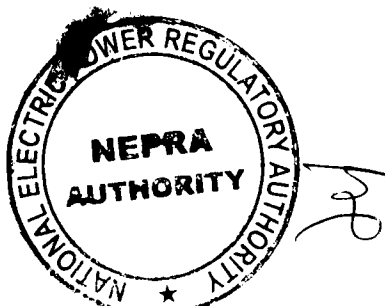


change in policy will hamper investment in the sector. Furthermore, Government has also supported the idea of competitive bidding for induction of new power generation capacity from renewable. In view thereof, the Authority feels that the procurement of power under transparent competitive process is most appropriate as it can fetch realistic prices based on the prevailing conditions of the market. It has also been observed that competitive bidding mode has been the most successful and preferred mode for arriving at fair and judicious prices and after announcing three upfront tariffs for solar PV technology, this is the appropriate time for a logical shift towards competitive regime. In Authority's opinion, the issuance of LOIs should not be considered an impediment for the shift towards competition for which AEDB has also submitted that the mechanism for disposal of LOIs would be developed in the course of development of auction framework. The Authority vide its decision dated 27th January 2017 has already announced benchmark levelized tariff for reverse bidding for wind power projects. In view of all the above, the Authority has decided to move to the competitive bidding regime for award of tariff to new solar PV power projects in the country.

13. The prices of the solar PV power equipments have indicated consistent declining trend over the past many years and the trend is expected to continue in foreseeable period. With improved efficiency of the solar panels and the addition of tracking devices, the output has significantly improved and the solar tariffs have become competitive. Keeping in view the fast declining solar equipment prices and in order to have a true market reflective tariff, the Authority has decided that, unlike the reverse auctions for wind projects, the competitive bidding for solar PV power projects shall be carried out by relevant agencies without having a benchmark levelized tariff as has successfully been carried out in recent past in other parts of the world. The relevant agencies shall prepare the required documentation for the competitive bidding and the Request for Proposal shall be submitted for approval under the NEPRA's Competitive Bidding (Approval & Procedure) Regulations 2014. The approval of final tariff shall be subject to consent given by NTDC or DISCO/NTDC, as the case may be, for evacuation of power.

ORDER

14. The Authority hereby approves and directs the relevant agencies to carry out competitive bidding for award of tariff to new solar PV power projects in the country under the NEPRA's Competitive Bidding (Approval & Procedure) Regulations 2014.





15. The Request for Proposal for competitive bidding shall be developed by the relevant agency and shall be submitted for the approval of the Authority in line with NEPRA's Competitive Bidding (Approval & Procedure) Regulations 2014.
16. The approval of final tariff shall be subject to consent given by NTDC or DISCO/NTDC, as the case may be, for evacuation of power.
17. The above order of the Authority is recommended to the Federal Government for notification in the official Gazette in accordance with Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.

AUTHORITY

(Himayat Ullah Khan)

Vice Chairman

(Masood ul-Hassan Nagvi)

Member

(Maj (R) Haroon Rashid)

Member

(Brig (R) Tariq Saddozai)

Chairman


03.03.17