



In regard to the application submitted by India Power Corporation Limited (IPCL) for approval of power sale agreement executed on 15.01.2020 by and between IPCL and Solar Energy Corporation of India Limited (SECI) for purchase of 100 MW hybrid power by IPCL for a period of 25 (twenty-five) years from the date of commercial operation.



period of 25 years from the date of commercial operation, i.e. August 2021, and accordingly the power sale agreement has been executed on 15.01.2020 by and between IPCL and SECI.

- 2.2 The tariff for procurement of hybrid power shall be Rs. 2.69 per kWh which has been adopted through reverse auction process along with trading margin of Rs. 0.07 per kWh fixed for the entire term of the agreement.
- 2.3 Sale of electricity shall be at a point at 220 kV or above where the power from the hybrid power project(s) will be injected into the ISTS. Metering shall be done at the interconnection point of ISTS. For interconnection with grid and metering, the developers shall abide by the relevant CERC Regulations, Grid Code and Central Electricity Authority Regulations, as amended from time to time. The drawal point is 220 kV J K Nagar Substation connected with State Transmission Utility (STU) of West Bengal.
- 2.4 All charges and losses related to transmission of power from the project up to and including at the delivery point as notified by the competent authority / regulator shall be borne by the HPD and beyond the delivery point all charges and losses as notified by the competent authority / regulator from time to time shall be borne by IPCL. In case it is paid by SECI on behalf of IPCL/HPD, the same shall be recovered from IPCL/HPD.
- 2.5 SECI and IPCL shall comply with the provisions of the existing applicable laws of the Electricity Act, 2003, scheduling and dispatching under ABT, Grid Code Regulations, etc. Transparency in payment mechanism shall be adhered to by both IPCL and SECI.
- 2.6 IPCL has further submitted that, the wind-solar hybrid power will help IPCL to meet its solar as well as non-solar RPO. Further combination of wind and solar power will reduce the variability in daily and seasonal renewable power generation and shall result into efficient utilization of transmission infrastructure. Moreover, the tariff for procurement of such hybrid power is cheaper than the average power procurement cost of IPCL as per last approved tariff order.





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2.7 In view of above, IPCL has prayed before the Commission to approve the said PSA dated 15.01.2020.

3.0 The Commission after carefully analyzing the application directed IPCL to submit the following:

- i) Plan to manage the grid considering the intermittent nature of the hybrid.
- ii) Clarify the availability of capacity for drawing 100 MW hybrid power at the drawal point of 220 kV J K Nagar substation considering the present arrangement and transformation capacity of J K Nagar Substation.
- iii) The share of Solar and Wind Capacity in the hybrid power which is to be considered for fulfilment of RPO.

4.0 Accordingly, IPCL vide letter dated 06.11.2020 inter-alia had submitted the following:

- i) The proposal of Solar – Wind hybrid generation offers higher Capacity Utilization Factor (CUF) and better average hourly combined Solar and Wind Generation curve/profile compared to stand-alone solar or stand-alone wind power. Further, load drawal pattern at J K Nagar 220 kV substation for a said day and projected hybrid RE generation curve from a typical generation profile of a 300 MW solar wind power will complement each other.

IPCL has also confirmed that they will ensure proper scheduling so that any deviation under DSM remains within acceptable limit and as per the provisions of applicable regulations and grid code. IPCL has also submitted that any deviation from schedule will be mitigated through Real Time Market which is in place.

- ii) The existing capacity at 220 kV J K Nagar substation is sufficient for drawal of 100 MW Hybrid Power on long term basis. IPCL has also stated that they have applied before WBSETCL for enhancement of drawal capacity from 130 MVA to 180 MVA through J K Nagar 220 kV line.
- iii) The proportion of solar and wind capacity in 100 MW Hybrid power quantum shall be 75% Solar and 25% Wind in terms of project capacity. IPCL also stated that SECI shall





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provide a certificate identifying the quantum of energy supplied by SECI within thirty days after the end of each year.

5.0 The Commission had directed IPCL to publish the gist of their application as approved by the Commission in terms of paragraph 9.17 of Tariff Order dated 21.07.2016 of IPCL. IPCL, accordingly had published the gist of the petition in (i) "The Telegraph", (ii) the "Ananda Bazar Patrika" and (iii) the "Sanmarg" on 01.12.2020 inviting suggestions and objections on their petition to be submitted within 14 (fourteen) days of publication of the gist. No suggestion and objection were received by the Commission within the stipulated time-period.

Point of determination:

6.0 Clause (b) of sub-section (1) of section 86 of the Electricity Act 2003 inter-alia specifies that, while discharging its function, the State Commission shall regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State. Further, in terms of Regulation 7.4.1 of the Tariff Regulations, prior approval of the Commission is required for every agreement or arrangement for power procurement by a licensee entered into after 09.02.2007, except for short term procurement.

7.0 Accordingly, provision of prior approval of Power Purchase Agreement (PPA) has been specified in the Tariff Regulations notified by the Commission. The extent of review of the PPA as specified in the regulation 7.4.2 of the Tariff Regulations is produced below:

"7.4.2 The Commission shall review an application for approval of power purchase agreement / arrangement for a period exceeding one year having regard to the following factors, as appropriate.

- (a) Requirement for power procurement;
- (b) Adherence to a transparent process of bidding in accordance with guidelines issued by the Central Government;
- (c) Adherence to the tariff determined by the Central Electricity Regulatory Commission for the purchase of power from Central generating company;
- (d) Adherence to the agreed tariff for purchase of energy from international sources;
- (e) Adherence to policy approved by the Commission for purchase of power from captive and non-conventional sources;
- (f) Availability (or expected availability) of capacity in the Intra-State transmission system for evacuation and supply of power procured under the agreement / arrangement;

