



**ORDER  
OF THE  
WEST BENGAL ELECTRICITY REGULATORY COMMISSION  
IN CASE NO. PPA- 103 /20-21**

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 AT A TARIFF DETERMINED THROUGH REVERSE AUCTION PROCESS IN TERMS OF SUB-SECTION 1 OF SECTION 86 OF THE ELECTRICITY ACT, 2003 AND IN TERMS OF REGULATIONS 2.1.12, 7.4.1, 7.8.1, 7.8.2 AND 7.8.3 OF THE WEST BENGAL ELECTRICITY REGULATORY COMMISSION (TERMS AND CONDITIONS OF TARIFF) REGULATIONS, 2011, AS AMENDED.

**PRESENT:**

**SRI SUTIRTHA BHATTACHARYA, CHAIRPERSON  
SRI DURGADAS GOSWAMI, MEMBER  
SRI PULAK KUMAR TEWARI, MEMBER**

**DATE: 18.01.2021**

**Certified true Copy**







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.



### **Facts in brief:**

- 1.0 India Power Corporation Limited (IPCL), in terms of sub-section (1) of section 86 of the Electricity Act, 2003 and regulations 2.1.12, 7.4.1, 7.8.1, 7.8.2 and 7.8.3 of the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011, as amended (in short 'Tariff Regulations'), has submitted an application on 09.06.2020 for approval of long-term Power Sale Agreement (PSA) executed on 15.01.2020 by and between IPCL and Solar Energy Corporation of India Limited (SECI). The PSA is for purchase of 100 MW hybrid power by IPCL for a period of 25 (twenty-five) years from the date of commercial operation at a tariff determined through reverse auction process conducted by SECI as per Rfs. No. SECI/C&P/HPD/1200MW/HYB/T2/Rfs/032013 dated 08.03.2019 under the National Wind-Solar Hybrid Policy issued by Ministry of New and Renewable Energy (MNRE), Government of India dated 14.05.2018. IPCL has submitted a copy of the Power Sale Agreement dated 15.01.2020 along with their application. Subsequently, IPCL through their letter dated 06.11.2020 has submitted required clarifications as asked for by the Commission vide its letter dated 21.09.2020. The Commission admitted the application along with additional information/ clarification submitted by IPCL on 20.11.2020 in Case No. PPA – 103/20-21.
- 2.0 The application of IPCL read with the Power Sale Agreement dated 15.01.2020 inter-alia state the following:
  - 2.1 SECI is the Nodal Agency for developing and facilitating the establishment of the Grid connected Wind – Solar Hybrid Power capacity in India by the Ministry of New and Renewable Energy (MNRE) through competitive bidding process. SECI had initiated a Tariff Based Competitive Bid Process based on the guidelines issued by MNRE for procurement of 600 MW power vide Rfs. No. SECI/C&P/HPD/1200MW/HYB/T2/Rfs/032013 dated 08.03.2019 and has entered into a Power Purchase Agreement with Hybrid Power Developer (HPD) namely Adani Renewable Energy Park (Gujarat) Limited. Now, based on the requisition of IPCL, SECI has agreed to sell 100 MW hybrid power to IPCL from the pool of 600 MW hybrid power to be procured from the HPD under a long- term contract for a







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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;







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- (g) Adherence to Purchase of power from any source, other than those mentioned from (a) to (e) above in pursuance to different provisions of these regulations;  
(h) Need to promote cogeneration and generation of electricity from renewable sources of energy."

### **Observations of the Commission:**

#### **8.0 Requirement of power procurement:**

- 8.1 IPCL has presented a Load Generation Balance Report (LGBR) from 2019 – 2020 along with their application. The LGBR has been prepared considering the average demand of IPCL and the source wise availability of power both in terms of power (MW) and energy (MU). From the LGBR it is observed that the power from SECI will not only help IPCL to meetup their balance requirement from 2021-22 onwards, but also there will be a surplus during initial two years (surplus of 31 MW in 2021-22 and 17 MW in 2022-23).
- 8.2 IPCL vide letter dated 06.11.2020 claimed that the 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 the solar wind power will complement each other. Further, IPCL assured that any deviation under DSM will be within acceptable limit as per the provisions of applicable regulations and grid code by way of proper scheduling. IPCL also proposed to mitigate any deviation from schedule through Real Time Market.
- 8.3 From paragraph 8.1 and 8.2 above, it is inferred that the power purchase is prima-facie found to be beneficial for IPCL to meet their demand as well as it will help IPCL to meet their Solar RPO and Non-Solar RPO for the ensuing years.

#### **9.0 Price of power purchase:**

- 9.1 The Commission observes that as per the Power Sale Agreement, IPCL will purchase 100 MW Wind-Solar Hybrid power from SECI at Rs. 2.69 per kWh for 25 years with effect from August, 2021. The Tariff has been discovered through competitive bidding and is well below the average power purchase cost of IPCL approved in the Tariff Order of 2016 – 17.







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- 9.2 It is also noted that, CERC in its order in petition no. 307/AT/2020 dated 21.05.2020 had examined the adherence of SECI to the competitive bidding guideline issued by MNRE, Government of India under section 63 of the Act and found it in affirmative.
- 9.3 In view of the paragraph 9.1 and 9.2 above, the Commission observes that the tariff as mentioned in the Power Sale Agreement is discovered following the competitive bidding guidelines issued by Government of India under section 63. Further, the discovered price is also beneficial for the end consumer. Thus, the tariff is admitted by the Commission.
- 9.4 From the application read with the Power Sale Agreement, the Commission noted that IPCL and SECI have agreed to a trading margin of 7 paise/ kWh over and above the price discovered under competitive bidding. Regulation 8 (1) (d) of the Central Electricity Regulatory Commission (Procedure, Terms and Conditions for grant of trading license and other related matters) Regulations, 2020 (in short 'CERC Trading License Regulations') states that the trading margin shall be as mutually decided between the Trading Licensee & the seller for transaction under long-term contracts. The Commission observes that the trading margin as agreed by both IPCL and SECI in this PSA is within the limit of Trading margin allowed by CERC for short-term contracts.
- 10.0 The Commission also notes that existing capacity at 220 kV J K Nagar substation is sufficient for drawal of 100 MW Hybrid Power on long term basis thus availability of adequate capacity in the Intra State Transmission System for supply of the power in terms of clause (g) of regulation 7.4.2 of the Tariff Regulations is confirmed.

**Order:**

- 11.0 The Commission after considering the above facts and in order to promote Renewable source of energy in terms of clause (e) of sub-section (1) of section 86 of the Act approves the Power Sale Agreement dated 15.01.2020 executed by and between IPCL and SECI for purchase of 100 MW power by IPCL from SECI for a period of 25 (twenty-five) years at a tariff determined through the reverse auction process conducted by SECI which is Rs. 2.69/kWh along with trading margin of 7 paise/kWh in terms of regulation 7.4.1







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of the West Bengal Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2011 as amended.

12.0 The Commission also directs IPCL to comply with the provisions of applicable law regarding scheduling as per the provisions of intra-state ABT, State Grid Code, etc. IPCL shall ensure the any deviation shall be within the acceptable limits under DSM.

13.0 The petition is thus disposed of. Let a copy of the order be served upon IPCL.

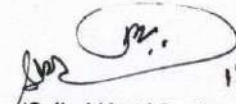
sd/-  
(PULAK KUMAR TEWARI)  
MEMBER

sd/-  
(DURGADAS GOSWAMI)  
MEMBER

sd/-  
(SUTIRTHA BHATTACHARYA)  
CHAIRPERSON

Dated: 18.01.2021

**Certified true Copy**

  
(Saibal Kanti Das)  
Secretary

