# BEFORE THE HARYANA ELECTRICITY REGULATORY COMMISSION BAYS No. 33-36, SECTOR-4, PANCHKULA- 134112, HARYANA

Case No. HERC/PRO – 05 of 2021

DATE OF HEARING : 28.04.2021 DATE OF ORDER : 29.04.2021

#### IN THE MATTER OF

Application under section 86(1) (B) and section 63 of the Electricity Act, 2003 for seeking approval of source for quantum of 500 MW power discovered in NIT-88/HPPC Dated 10.02.2021 floated for procurement 500 MW power on short term basis through Tariff Based Competitive Bidding process

#### Petitioner

Haryana Power Purchase Centre, Panchkula (HPPC)

#### Present on behalf of the Petitioner

Ms. Sonia Madan, Advocate, HPPC

### Quorum

Shri Pravindra Singh Chauhan Member Shri Naresh Sardana Member

## **ORDER**

## **Brief Background of the case**

- 1. HPPC has filed the present petition vide Memo No. Ch-25/CE/HPPC/STP/20-12 dated 09.4.2021 for approval of source by the Commission for procurement of 500 MW power on short term basis through Tariff Based Competitive Bidding process.
- 2. Submissions of the Petitioner is set out, in brief, hereunder:
  - i. That, the Petitioner, Haryana Power Purchase Centre (hereinafter referred to as 'HPPC') is a joint forum created and owned by the Distribution Licensees, i.e., Uttar Haryana Bijli Vitran Nigam Limited and Dakshin Haryana Bijli Vitran Nigam Limited (hereinafter collectively referred to as 'Haryana Distribution Utilities' or 'Discoms'), with a mandate to arrange/procure economical, reliable and cost effective power including renewable and non-conventional sources for the Haryana Distribution Utilities in order to meet the universal service obligations of providing electricity to their consumers.
  - ii. That, besides creation of the forum HPPC, the Haryana Government, in exercise of powers conferred under section 131 of Electricity Act, 2003 (hereinafter may also be referred to as 'Act'), vide Gazette notification no. 1/1/2008-1 Power dated 11th April 2008 inter-alia constituted a Steering Committee for Power Planning (hereinafter referred to as 'SCPP') comprising of Secretary/Power, Haryana; Chairman, Haryana Power Utilities and Managing Directors of Haryana Power Utilities to take strategic decisions with respect to the procurement of short term and long term power for the State of Haryana and finalizing policy issues.

iii. That, the demand availability scenario for the period 01.05.2021 to 30.9.2021 on the basis of "mode" of peak demand computed on actual peak demand (met) from the FY 2011-12 to the FY 2019-20 has been prepared. The details of the same alongwith Demand Supply Gap, including banking arrangements, for this period is as under:

(Qtm in MW)

| Month   | Mode of | Long Term    | Banking      | Total        | Surplus     |
|---|---------|--------------|--------------|--------------|-------------|
|   | Peak    | availability | Arrangements | Availability | (+)/        |
|   | Demand  |              |              |              | Deficit (-) |
| May-21  | 9227    | 9551         | 0            | 9551         | 324         |
| June-21 (01st to 15th)                          | 10159   | 10239        | 0            | 10239        | 80          |
| June-21 (16 <sup>th</sup> to 30 <sup>th</sup> ) | 10159   | 10239        | 230          | 10469        | 310         |
| Jul-21  | 10840   | 10248        | 514          | 10762        | -78         |
| Aug-21  | 10014   | 10527        | 539          | 11066        | 1052        |
| Sept-21 (01 <sup>st</sup> -10 <sup>th</sup> )   | 11140   | 9950         | 353          | 10303        | -837        |
| Sept-21 (11 <sup>th</sup> -30 <sup>th</sup> )   | 11140   | 9950         | 229          | 10179        | -961        |

iv. That, RGTPS Khedar Unit no. II (capacity 600MW) was boxed up since 18.09.2020 due to high turbine vibrations and it is not confirmed when it will be back on bars. The demand supply gap, after reducing the quantum of RGTPPS Khedar unit-2, is as under:-

(Qtm in MW)

|   |         |              |              |              | (            | ,       |
|---|---------|--------------|--------------|--------------|--------------|---------|
| Month   | Mode of | Long Term    | Availability | Banking      | Total        | Surplus |
|   | Peak    | availability | reduced      | Arrangements | Availability | (+)/    |
|   | Demand  |              | due to       |              |              | Deficit |
|   |         |              | RGTPP        |              |              | (-)     |
|   |         |              | unit-2       |              |              |         |
| May-21  | 9227    | 9551         | -510         | 0            | 9041         | -186    |
| June-21 (01st to 15th)                          | 10159   | 10239        | -510         | 0            | 9729         | -430    |
| June-21 (16 <sup>th</sup> to 30 <sup>th</sup> ) | 10159   | 10239        | -510         | 230          | 9959         | -200    |
| Jul-21  | 10840   | 10248        | -510         | 514          | 10252        | -588    |
| Aug-21  | 10014   | 10527        | -510         | 539          | 10556        | 542     |
| Sept-21 (01 <sup>st</sup> -10 <sup>th</sup> )   | 11140   | 9950         | -510         | 353          | 9793         | -1347   |
| Sept-21 (11 <sup>th</sup> -30 <sup>th</sup> )   | 11140   | 9950         | -510         | 229          | 9669         | -1471   |

v. That, at present the industrial load of Haryana state is running at about 25% higher as compared to last year as observed during Jan 2020 & Feb 2020 i.e. before the lockdown due to COVID-19.

| Period   | Average consumption during | %age increase |       |
|----------|----------------------------|---------------|-------|
|          | 2020 2021                  |               |       |
| January  | 298.72                     | 368.50        | 23.36 |
| February | 308.98                     | 382.16        | 23.73 |

The details of category wise consumption for the period January 2020 & February 2020, January 2021 & February 2021are placed at Annexure-A to D in the petition respectively.

vi. That the maximum demand felt during FY 2019-2020 is 11030 and FY 2020-2021 is 10894 (COVID-19 period).

- vii. That, in order to bridge the gap between demand and availability of power during 01.05.2021 to 30.09.2021, NIT was floated through NIT No. 88/HPPC dated 10.02.2021 for purchase of 500 MW RTC power during this period through tariff based competitive bidding process using National e-bidding portal i.e. DEEP Portal as per Gol, MoP guidelines dated 30.3.2016 on procurement of power for short term (i.e. for a period more than one day to one year) by the Distribution Licensees.
- viii. That, on the last date of submission of bid i.e. 23.02.2021 seven bidders namely M/s Tata Power, M/s Manikaran Power Ltd, M/s Sembcorp Energy India Ltd, M/s PTC India Ltd., M/s NVVN, M/s Adani and M/s GMR submitted their respective bids.
- ix. That, the technical bid was opened on the scheduled date i.e. 24.02.2021. The financial bid was opened on scheduled dated i.e. 25.02.2021, it was found that all the bidders has submitted different quantum and different rates in different months. The bids/offers are valid upto 25.04.2021. The details of financial bids of all the bidders is placed at Annexure E of the petition.
- x. That, the e-reverse auction was held on 25.02.2021. The rate discovered for bucket filling after e-reverse auction is as under:-

| SI.<br>No. | Period                           | Name of Bidder                        | Source   | Quantum<br>(In MW) | Rate<br>Quoted<br>(Rs/unit) | Weighted<br>Avg. Rate<br>(Rs/unit) |
|------------|----------------------------------|---------------------------------------|--|--------------------|-----------------------------|------------------------------------|
|            |                                  | Adani Enterprises Ltd                 | Adani Power (Mundra)<br>Limited                  | 200                | 3.28                        |                                    |
| 1          | 01.05.2021<br>to                 | PTC India Limited                     | JAYPEE NIGRIE (JNSTPP) MP                        | 150                | 3.28                        | 3.31                               |
| 1          | 31.05.2021                       | Adani Enterprises Ltd                 | Raipur Energen Limited (REL)                     | 50                 | 3.28                        | 5.51                               |
|            | 31.03.2021                       | SEMBCORP Energy India<br>Ltd          | SembCorp Energy India<br>Limited, Andhra Pradesh | 100                | 3.45                        |                                    |
|            |                                  | Manikaran Power<br>Limited            | KSK Mahanadi Power CO<br>Ltd, Chhattisgarh       | 94                 | 3.13                        |                                    |
| 2          | 01.06.2021<br>to                 | SEMBCORP Energy India<br>Ltd          | SembCorp Energy India<br>Limited, Andhra Pradesh | 150                | 3.13                        | 3.19                               |
|            | 30.06.2021                       | PTC India Limited                     | JAYPEE NIGRIE (JNSTPP) MP                        | 200                | 3.25                        |                                    |
|            |                                  | Adani Enterprises Ltd                 | Adani Power (Mundra)<br>Limited                  | 56                 | 3.28                        |                                    |
|            |                                  | Tata Power Trading Company Limited    | GoHP power entitlement in<br>Karcham Wangtoo     | 65                 | 3.13                        |                                    |
|            | 01.07.2021                       | Manikaran Power<br>Limited            | KSK Mahanadi Power CO<br>Ltd, Chhattisgarh       | 94 3.13            |                             |                                    |
| 3          | to                               | PTC India Limited                     | JAYPEE NIGRIE (JNSTPP) MP                        | 50                 | 3.21                        | 3.22                               |
|            | 31.07.2021                       | SEMBCORP Energy India<br>Ltd          | SembCorp Energy India<br>Limited, Andhra Pradesh | 150                | 3.27                        |                                    |
|            |                                  | Adani Enterprises Ltd                 | Adani Power (Mundra)<br>Limited                  | 141                | 3.28                        |                                    |
|            |                                  | PTC India Limited                     | J&K State Power J&K                              | 120                | 2.96                        |                                    |
|            |                                  | Tata Power Trading<br>Company Limited | Jindal India Thermal Power<br>Limited (JITPL)    | 150                | 2.96                        |                                    |
|            | 01.08.2021<br>4 to<br>31.08.2021 | Adani Enterprises Ltd                 | Raipur Energen Limited (REL)                     | 50                 | 2.98                        |                                    |
| 4          |                                  | GMR Energy Trading<br>Limited         | DB POWER LIMITED (DBPL)                          | 50                 | 3.12                        | 3.04                               |
|            |                                  | Manikaran Power<br>Limited            | KSK Mahanadi Power CO<br>Ltd, Chhattisgarh       | 94                 | 3.18                        |                                    |
|            |                                  | PTC India Limited                     | JAYPEE NIGRIE (JNSTPP) MP                        | STPP) MP 36        |                             |                                    |
| 5          | 01.09.2021                       | PTC India Limited                     | J&K State Power J&K                              | 180                | 3.08                        | 3.11                               |

| SI.<br>No. | Period           | Name of Bidder             | Source                                  | Quantum<br>(In MW) | Rate<br>Quoted<br>(Rs/unit) | Weighted<br>Avg. Rate<br>(Rs/unit) |
|------------|------------------|----------------------------|---|--------------------|-----------------------------|------------------------------------|
|            | to<br>30.09.2021 | Manikaran Power<br>Limited | KSK Mahanadi Power CO Ltd, Chhattisgarh |                    | 3.08                        |                                    |
|            |                  | Adani Enterprises Ltd      | Raipur Energen Limited (REL)            | 50                 | 3.08                        |                                    |
|            |                  |                            | DB Power Limited,<br>Chhattisgarh       | 50                 | 3.10                        |                                    |
|            |                  | PTC India Limited          | JAYPEE NIGRIE (JNSTPP) MP               | 126                | 3.20                        |                                    |
|            |                  | Weighted average rate f    | or the period May 2021 to Sept 2        | 2021               |                             | 3.17                               |

xi. The average variable rates of the major thermal units for last year i.e. April 20 to January 21 are as under:-

| Sr. No. | Project Name  | Average (Rs/unit) |
|---------|---|-------------------|
| 1       | Panipat Thermal Plant Unit- V   | 3.89              |
| 2       | Panipat Thermal Plant Unit- VI  | 3.61              |
| 3       | Rajiv Gandhi Thermal Power Plant Hisar (Khedar)                           | 3.54              |
| 4       | Panipat Thermal Plant Unit - VII  | 3.49              |
| 5       | Panipat Thermal Plant Unit - VIII   | 3.49              |
| 6       | Deenbandhu Chhotu Ram Thermal Power Plant<br>Yamunanagar unit-1 - 2 YTPP) | 3.41              |
| 7       | Aravali Co. Pvt. Ltd.   | 3.40              |
| 8       | Jhajjar Power Ltd.(CLP)   | 3.39              |

The month wise details are placed at Annexure F in the petition.

- xii. The average variable cost of merit order (average from April 20 to Jan 21) is in the range of Rs. 3.39/unit to Rs. 3.89/ unit. The average power purchased cost approved in the ARR for the FY 2021-22 is Rs. 3.84/unit without transmission charges. The copy of ARR for FY 2021-22 is placed at Annexure G of the petition. The weighted average rate for the period May 2021 to Sept 2021against NIT-88 works out Rs. 3.17/unit.
- xiii. That, SCPP in its 57th meeting held on 30.03.2021 considered the proposal and approved the purchase of 500 MW power on RTC basis from 01.05.2021 to 30.09.2021.
- xiv. That in view of the above, the petitioner has prayed as under:
  - a. To approve the source for procurement of 500 MW power on short term basis, from 01.05.2021 to 30.09.2021 at the tariff discovered through transparent process of competitive bidding (NIT-88) under Section 63 of the Electricity Act, 2003.
  - b. Allow HPPC to issue LOI for purchase of 500 MW power from 01.05.2021 to 30.09.2021.
  - c. Pass such further order or order(s) as may be deemed necessary and fit in the circumstances of the case.

# **Proceedings in the Case**

3. In order to take a reasoned view in the matter, the Commission sought additional information vide letter memo no 182 dated 19.04.2021. The additional information sought is re-iterated below:

- i. A copy of the NIT 88 / HPPC dated 10.02.2021 may be provided and it may also be clarified whether the tariff discovered is at Haryana periphery or generators' bus-bar. In case of latter, HPPC may work out the landed cost of such power from each source in terms of the Commission's Order in the Discoms ARR / Tariff for the FY 2021-22 i.e. "..the Commission is of the considered view that the Discoms while evaluating any new proposal for purchase of power in future, shall give due weightage to the landed cost of power at its interface with the STU".
- ii. It has been submitted that RGTPS Unit 2 (600 MW) has been boxed up w.e.f. 18.09.2020 and it is not confirmed when it will be back on bar seems to be too vague statement to rely on. Moreover, while determining Generation Tariff for the current year wherein the Commission has pegged the PLF at 85% for 2X600 MW RGTPS the issue of indefinite non-availability of RGTPS Unit 2 was never flagged by any party including HPGCL. Hence, HPPC needs to confirm, in writing, from HPGCL regarding the expected / planned date of bringing the said machine on bar.
- iii. Given the fact that the situation, due to pandemic, may continue in the FY 2021-22 as well. HPPC may inform the peak load met during the months of May to September, 2020 and during the said months whether CLP (Jhajjar), APCL, FGTPS (including RLNG), other NTPC Power Plants and IPPs (for which PPAs have been approved by the Commission) in which Haryana has allocated share, were scheduled to its full capacity entitlement for which the entire Fixed Cost, as determined by the Hon'ble CERC or as per the PPA, is payable.
- iv. Additionally, during the FY 2020-21, the Commission had determined tariff (Fixed & ECR) as well as quantum of power that would be available from HPGCL's Power Plants i.e. PTPS (Units 6 to 8), DCRTPS and RGTPS, to what extent these Generators were scheduled during the said months. Lower schedule given to HPGCL may also lead to claims of penalty on short lifting of coal.
- v. The Commission, in the FY 2021-22, has pegged PLF of PTPS 2 X 250 MW (7&8) at 53% given the lower actual generation due to backing down on MoD during the previous years and also reduced R&M and A&G Cost to 50%, despite the fact that these machines are available for generation at 85% PLF or even more. The per unit fixed cost payable, as per the Commission's Order is Rs. 1.37 / kWh i.e Rs. 291 Crore for ex-bus generation of 212.4 Crore Units.
- vi. Hence, given the trade-off available for meeting the power requirement from HPGCL as well as other approved sources vis-à-vis the proposed short-term sources, HPPC may justify the rationale for the proposed quantum and cost savings of the proposed 500 MW Power at the rates discovered through competitive bidding.

- 4. HPPC filed reply to the queries raised by HERC vide memo no Ch-28 /CE/HPPC/XEN/STP-20-12 dated 23.04.2021 and is given below:
  - Copy of NIT No 88/HPPC dated 10.02.2021 is enclosed as Annexure-I for your ready reference. The tariff discovered in the bid is at Haryana Periphery.
  - ii. The e-mail from Xen, Khedar is enclosed as Annexure-II wherein it is intimated that to rectify the problem of high turbine vibrations, the work was allotted to OEM i.e. M/s SEC China and has commenced from 02.03.2021. However, after dismantlement of turbine, a crack has been observed on the entire periphery of HIP rotor. OEM and M/s BHEL have concluded that this rotor cannot be repaired and recommended for replacement of the rotor with new rotor. Supply of new rotor has a long delivery period. Action for purchase of new rotor from OEM/BHEL has already been taken. In present situation It is unlikely that unit No. 2 will be available for service during coming summer season.
  - iii. During FY 2020-21 there was complete lockdown during the summer season due to which the industrial load was affected severely. The industrial load has already been revived to the pre-COVID level and likely to increase further. The same scenario is unlikely during the coming summer season. The details of Industrial Load of Haryana State during January 2021 to March 2021 as compared to last year:-

| Month    | Average consumption of Industrial load | % ago increase |                |
|----------|--|----------------|----------------|
| Month    | 2021                                   | 2020           | % age increase |
| January  | 368.50                                 | 298.72         | 23.36          |
| February | 382.16                                 | 308.98         | 23.73          |
| March    | 372.23                                 | 212.29         | 75.34          |

Due to less demand on account of the lock down (due to COVID-19) the various generating plants were not scheduled to their full capacity. Further, there is load variation of about 1500-2000 MW during the peak & non-peak hours as such, the power is scheduled as per load trend of the day. The details of power purchased/scheduled from various generating stations during May 2020 to September 2020 is placed at Annexure-III. The peak demand met during April 2020 to September 2020 is tabulated below:

| Month        | Peak Demand (In MW) |
|--------------|---------------------|
| April-20*    | 6430                |
| May-20       | 8009                |
| June-20      | 10368               |
| July-20      | 10894               |
| August-20    | 10161               |
| September-20 | 10008               |

<sup>\*</sup>The peak demand during April 2019 was 8168 MW on 29.04.2019 and also peak demand during April 2021 is 7606 MW on 19.04.2021 which is likely to increase further in coming days. The peak demand during April 2020 remained low due to unprecedented COVID-19

- pandemic year (Lockdown). It is evident from the above that load will increase in coming months and it is expected that the peak demand may cross 12000 MW during July 2021.
- iv. The details of power purchased/scheduled from HPGCL power plants is placed as Annexure-III. The exchange rates during summer season last year was exceptionally low due to which the power was purchased from power exchange and the HPGCL plants were scheduled less. The month wise exchange rates are tabulated below:-

| Month   | Average Rate/unit |
|---------|-------------------|
| May-20  | 2.57              |
| June-20 | 2.35              |
| July-20 | 2.47              |
| Aug-20  | 2.43              |
| Sept-20 | 2.69              |

- v. The PTPS Unit 7&8 were scheduled less as compared to other generating units due to its higher position in MoD. They were scheduled less due to the seasonal variation of load during winter and summer months and load variation of about 1500-2000 MW during the peak & non-peak hours on any particular day.
- vi. The demand supply gap on the basis of which NIT-88 was floated is placed as Annexure-IV. The demand supply gap was worked out on the basis of mode of peak demand. The demand supply gap without RGTPP Unit II is as under:-

(In MW)

|   |         |              |              |              |              | · ,         |
|---|---------|--------------|--------------|--------------|--------------|-------------|
| Month   | Mode of | Long Term    | Availability | Banking      | Total        | Surplus     |
|   | Peak    | availability | reduced      | Arrangements | Availability | (+)/        |
|   | Demand  |              | due to       |              |              | Deficit (-) |
|   |         |              | RGTPP        |              |              |             |
|   |         |              | unit-2       |              |              |             |
| May-21  | 9227    | 9551         | -510         | 0            | 9041         | -186        |
| June-21 (01 <sup>st</sup> to 15 <sup>th</sup> ) | 10159   | 10239        | -510         | 0            | 9729         | -430        |
| June-21 (16 <sup>th</sup> to 30 <sup>th</sup> ) | 10159   | 10239        | -510         | 230          | 9959         | -200        |
| Jul-21  | 10840   | 10248        | -510         | 514          | 10252        | -588        |
| Aug-21  | 10014   | 10527        | -510         | 539          | 10556        | 542         |
| Sept-21 (01 <sup>st</sup> -10 <sup>th</sup> )   | 11140   | 9950         | -510         | 353          | 9793         | -1347       |
| Sept-21 (11 <sup>th</sup> -30 <sup>th</sup> )   | 11140   | 9950         | -510         | 229          | 9669         | -1471       |

From the table, it is evident that there is deficit of power during May, June, July & September even in the scenario for mode of peak demand (without the Khedar Unit). However, the peak demand may cross 12000 MW in July 2021. In view of the above, this power is required to fulfil the above deficit.

## **Commission's Order**

5. The matter was heard on 28<sup>th</sup> April 2021, as scheduled, through virtual court in view of the pandemic.

- 6. During the hearing in the matter held on 28.04.2021, the Ld. Advocate submitted that variable cost / fuel cost of all HPGCL power stations as well as from sources such as CLP, APCL etc. are higher than the landed cost of the proposed short-term power from 01.05.2021 to 30.09.2021. Hence, the present proposal is cost effective.
- 7. The Commission has taken note of the submissions of the petitioner including the fact that the cost of the proposed short-term power is at Haryana periphery, hence, no additional cost in terms of transmission charges etc. is applicable.
- 8. Given the justifications for source approval in terms of the demand supply gap during the months of May to September 2021, as well as competitive advantages of the proposed sources, the Commission approves procurement of short-term power from 01.05.2021 to 30.09.2021 from the sources and cost as proposed by the petitioner. However, this would be subject to merit order dispatch principle. Petition allowed.

The present Petition is disposed of accordingly.

This order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 29.04.2021.

Date: 29.04.2021 (Naresh Sardana) (Pravindra Singh Chauhan)
Place: Panchkula Member Member