CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No. 587/MP/2020

Coram: Shri P.K.Pujari, Chairperson Shri I.S.Jha, Member Shri Arun Goyal, Member

Date of Order: 7th August, 2020

In the matter of

Petition under Section 79(1)(k) of the Electricity Act, 2003 read with Regulation 8 (7) of the Central Electricity Regulatory Commission (Grant of Connectivity, Long Term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009 seeking permission for injection of infirm power beyond six months in case of Parbati Hydroelectric Project-Stage-II.

And In the matter of

NHPC Limited NHPC Office Complex, Sector-33, Faridabad-121 003

...Petitioner

Vs.

 Executive Director
Regional Load Despatch Centre
(Power System Operation Corporation Limited)
18-A, Shaheed Jeet Singh Sansanwal Marg, Katwaria Sarai, New Delhi-110 016

Member Secretary,
Northern Regional Power Committee
18-A, Shaheed Jeet Singh Sansanwal Marg,
Katwaria Sarai, New Delhi-110 016

3. Chairman, Central Electricity Authority Sewa Bhawan, R.K.Puram Sector-1, New Delhi110 066

4. Chairman and Managing Director Power Grid Corporation of India Limited Saudamini, Plot No. 2, Sector-29, Near IFFCO Chowk, Gurgaon, Haryana-122 001

...Respondents

<u>ORDER</u>

This Petition has been filed by the Petitioner, NHPC Limited, seeking permission of the Commission for injection of infirm power into the grid up to 31.3.2022 or till declaration of commercial operation of 800 MW (4X200 MW) Parbati Hydroelectric Project, Stage-II (hereinafter referred to "the generating station") in the State of Himachal Pradesh in terms of clause (7) of Regulation 8 of the Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State transmission and related matters) Regulations, 2009 (hereinafter referred to as 'Connectivity Regulations'). The Petitioner has made the following prayers:

"(a) Allow extension of time for injection of infirm power from all four units of Parbati Hydroelectric Project-Stage II beyond 31.8.2020 and upto 31.3.2022 or actual COD of individual units, whichever is earlier, as per provisions of Regulation 8(7)(b) of Central Electricity Regulatory Commission (Grant of Connectivity, Long-term Access and Medium-term Open Access in inter-State Transmission and related matters) Regulations, 2009

(b) Pass such further order or orders as may be deemed fit and proper in the facts and circumstances of the case."

2. The Petitioner has submitted that the generating station consists of four units (4x200 MW). Scheduled COD of the generating station was 11.9.2009. The Petitioner has submitted that Unit-I and Unit-II of the generating station was first synchronized with grid on 14.9.2018 and 22.9.2018 respectively with available water from Jiwa Nallah. However, due to unavailability of surplus water, Unit-I and Unit-II could not be declared under commercial operation. Accordingly, with the

prior permission of NRLDC, Unit-I and Unit-II of the generating station were resynchronised with the grid on 5.7.2019 and 6.7.2019 respectively.

3. The Commission in its order dated 6.9.2019 in Petition No. 217/MP/2019 had allowed injection of infirm power of all fours units of the generating station up to 31.8.2020 or actual date of commercial operation, whichever is earlier. The Petitioner has submitted that the units could not be declared under commercial operation within given time frame due to the following reasons:

(a) Headrace Tunnel (HRT) through Face-4: HRT from Face-4 i.e. TBM (Tunnel Boring Machine) Face is passing through highly abrasive and high strength quartzite rock. Major hindrances resulting in delay in past one year is as under:

- Rock bursting during and after excavation resulted in increase in quantum of support system like forepoling, continuous installation of ribs and McNally plates, etc. which consumed considerable time.
- Hard rock conditions resulted in frequent change of cutters.
- Frequent faults in hydraulic systems in TBM.
- Second scheduled stopover for maintenance was taken from 1.8.2019 to 7.8.2019.
- Ingress of water of the order of 4000 lpm in the month of August, 2019 hampered the excavation progress.
- Formation of large cavities (up to 4 meter high) due to rock fall from the crown areas affected the excavation progress badly.
- Forepoling was carried out in order to arrest the rock-fall which further reduced the excavation time resulting in slow progress.
- Third scheduled stopover for maintenance of cutter head buckets, gripper cylinders and thrust cylinder was taken from 30.12.2019 to 10.1.2020.
- Problem with primary conveyor motor hampered the work in the month of February, 2020.

- Excessive Rock-fall and formation of large cavities during the month of March, 2020 hampered the progress.
- Work came to standstill due to lockdown w.e.f 22.3.2020 enforced by Government of India as a preventive measure to avoid spread of COVID-19 pandemic and re-started with minimum workforce w.e.f 23.4.2020.

(b) HRT through Face-2, Face-3 and Face-6: These HRT works were awarded to Valecha Engineering Ltd. in the year 2013. However, due to poor performance, the contract was terminated in December 2018. The tender for balance works (DBM package) was floated in the year 2019. However, it was extended multiple times due to poor response/ high rates from the bidders. Finally, 1500 meter stretch and downstream of Face-3 have been awarded to Gammon Engineers and Contractors Private Limited on 2.6.2020. Thus, the work which was planned to be awarded in March 2019 as per completion schedule of December 2021 was awarded with a delay of about 14 months. The contractor is in process of signing of Agreement. 106 meter of HRT from Face-6 will be excavated after completion of excavation from Face-4.

(c) Sheelagarh Diversion works: These works were part of Lot-PB2B package awarded to Valecha Engineering Ltd. in the year 2013. However, due to poor performance, the contract was terminated in December 2018. The tender for balance Nallah works was floated in the year 2019. However, it was extended multiple times due to poor response from the bidders.

(d) The following works were affected due to country-wide lockdown on account of COVID-19 pandemic:

(i) Excavation of 52 meter long approach tunnel of Hurla Nallah.

(ii) Construction of balance civil works of Manihar Trench Weir, feeder tunnel and outfall structure (Lot PB 2D-1).

(iii) Construction of balance civil works of Pancha Trench Weir, feeder tunnel and associated works (Lot PB 2D-2).

(iv) Construction of balance civil works of Hurla Trench Weir, de-silting chamber, SFT, escape tunnel outfall & other Misc. works (Lot PB 2D-3).

(v) Construction of balance civil works of plugging of Adit-3 (lot PB 2D-4).

(vi) Construction of balance works of Road at Sheelagarh area (Lot PB 2D-5).

(vii) Balance HM works of Nallah Diversion.

4. The Petitioner has submitted that in view of the above reasons, the entire project is expected to be completed in March 2022 against the earlier completion schedule of December 2021.

5. The Petition is admitted by circulation.

6. We have considered the submissions of the Petitioner. The fourth and fifth provisos to Regulation 8(7) of the Connectivity Regulations provides as under:

"Provided that the Commission may in exceptional circumstances, allow extension of the period for inter-change of power beyond the period as prescribed in this clause, on an application made by the generating station at least two months in advance of completion of the prescribed period:

Provided further that the concerned Regional Load Despatch Centre while granting such permission shall keep the grid security in view."

7. The Petitioner has submitted that it has made all efforts to ensure completion of activities of the units of the generating station within stipulated time but could not succeed for reasons beyond its control. The Petitioner has submitted that due to COVID-19 pandemic, entire country was under lockdown for the period from 25.3.2020 to 31.5.2020. Therefore, the site activities of the units have been hampered and it could not start the balance works i.e. HRT through Face-2, Face-3 & Face-6 and Sheelagarh Diversion, etc. The Petitioner has submitted that due to reasons enumerated in paragraph 3 above, it was not able to complete testing including full load testing within the prescribed period from the date of first synchronization of unit-I and unit-II of the generating station. The Petitioner has submitted that the project as a whole is expected to be commissioned by March 2022. The Petitioner has submitted that time is required to complete the balance

works and to carry out the operation of testing and commissioning including injection of infirm power into the grid. Considering these facts, the Petitioner has requested for permission to inject infirm power till 31.3.2022 or actual date of commercial operation, whichever is earlier. According to the Petitioner, revenue earned from injection of infirm power will be reduced from the capital cost of the Project which would decrease the tariff and the same shall be beneficial to the beneficiary States of the Project.

8. Taking into consideration the difficulties expressed by the Petitioner and in terms of the proviso to Regulation 8(7) of the Connectivity Regulations as quoted in paragraph 6 above, we allow injection of infirm power into the grid for commissioning tests including full load test of all fours units of the generating station for further period of one year i.e. up to 31.8.2021. The Petitioner is directed to approach the Commission with details of efforts undertaken till then so that the Commission may decide on further extension of period for injection of infirm power. It is, however, clarified that extension of time granted as above shall not automatically entitle the Petitioner for IEDC/IDC for the delay in declaration of COD from the scheduled COD which will be decided in accordance with the relevant provisions of the Tariff Regulations.

9. With the above, the Petition No. 587/MP/2020 is disposed of.

Sd/-(Arun Goyal) Member Sd/-(I.S. Jha) Member Sd/-(P.K. Pujari) Chairperson