

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 295/MP/2024**

**Coram:**

**Shri Jishnu Barua, Chairperson  
Shri Ramesh Babu V, Member  
Shri Harish Dudani, Member  
Shri Ravinder Singh Dhillon, Member**

**Date of Order: 30<sup>th</sup> November, 2025**

**In the matter of:**

Petition seeking recovery/adjustment of Transmission Deviation Charges paid by SJVN Limited with regard to Nathpa Jhakri Hydro Power Station (6 x 250 MW) and Rampur Hydro Power Station (6 x 68.67 MW) in terms of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020 during the period from 01.11.2020 to 30.09.2023 while providing primary response to the Grid.

**And in the matter of:**

**SJVN Limited**

Shakti Sadan, Corporate Headquarters  
Shanan, Shimla 171006 (H.P.)

**.....Petitioner**

**Versus**

- 1. Punjab State Power Corporation Limited (PSPCL)**  
The Mall, Patiala – 147001 (Punjab)
- 2. Haryana Power Purchase Centre (HPPC)**  
2nd Floor, Shakti Bhawan, Sector 6, Panchkula – 134108 (Haryana)
- 3. Jaipur Vidyut Vitaran Nigam Ltd.**  
Vidyut Bhawan, Janpath  
Jyoti Nagar, Jaipur – 302005 (Rajasthan)
- 4. Ajmer Vidyut Vitaran Nigam Ltd.**  
Vidyut Bhawan, Janpath  
Jyoti Nagar, Jaipur – 302005 (Rajasthan)
- 5. Jodhpur Vidyut Vitaran Nigam Ltd.**  
Vidyut Bhawan, Janpath  
Jyoti Nagar, Jaipur – 302005 (Rajasthan)

- 6. Himachal Pradesh State Electricity Board Ltd.**  
Vidyut Bhawan, Kumar House, Shimla – 171004 (H.P.)
- 7. JK Power Corporation Ltd (JKPCL)**  
Narewal Grid Station, Giladini, Jammu-180001 (J&K)
- 8. Engineering Deptt (Chandigarh),**  
UT Secretariat (Deluxe) Building, Sector 9D, U.T., Chandigarh.
- 9. Uttar Pradesh Power Corporation Ltd. (UPPCL)**  
Shakti Bhawan Exten., 14 Ashok Marg, Lucknow – 226001 (U.P.)
- 10. Uttarakhand Power Corporation Ltd (UPCL)**  
Victoria Cross Vijeyta Gabar Singh Urja Bhawan, Kanwali Road,  
Dehradun- 248001 (Uttarakhand)
- 11. Directorate of Energy, Govt. of Himachal Pradesh**  
Shanti Bhawan, Phase-III, Sector-VI,  
New Shimla, Shimla-171002 (H.P.)
- 12. M.P. Power Management Company Limited**  
Shakti Bhawan, Rampur, Jabalpur- 482008 (M.P.)
- 13. Tata Power Delhi Distribution Limited,**  
NDPL House, Hudson Lane, Kingsway Camp, New Delhi-110019
- 14. BSES Rajdhani Power Limited**  
2nd Floor, B-Bock, BSES Bhawan  
Nehru Place, New Delhi-110019
- 15. BSES Yumuna Power Limited**  
3rd Floor, Shakti Kiran Building  
Karkardooma Near Court Road, New Delhi-110032
- 16. Northern Regional Power Committee**  
18-A, Qutab Institutional Area,  
Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi-110 016
- 17. Grid Controller of India**  
Northern Regional Load Dispatch Centre  
18-A, Qutab Institutional Area, Shaheed Jeet Singh Marg,  
Katwaria Sarai, New Delhi-110 016

## 18. National Load Despatch Centre (NLDC)

B-9 (1<sup>st</sup> Floor), Qutab Institutional Area,  
Katwaria Sarai, New Delhi-110 016

..... Respondents

**Parties Present:** Ms. Anushree Bardhan, Advocate, SJVN  
Ms. Dalima Gupta, Advocate, SJVN  
Shri Ashok Kumar, Advocate, SJVN  
Shri Rajeev Agarwal, Advocate, SJVN  
Ms. Lata Tewari, Advocate, SJVN  
Shri Manav Malhotra, Advocate, BRPL  
Shri Mohit K Mudgal, Advocate, BRPL  
Shri Mohit Jain, Advocate, BRPL  
Shri Adarsh Tripathi, Advocate, BYPL  
Shri Ajitesh Garg, Advocate, BYPL  
Shri Vikram Singh, Advocate, BYPL  
Shri Kamaldeep, NLDC & NRLDC  
Ms. Priyanshi, NLDC & NRLDC  
Shri Prashant Garg, NLDC & NRLDC  
Shri Alok Mishra, NLDC & NRLDC  
Shri Ashok Rajan, NLDC & NRLDC  
Ms. Himani Dutta, NLDC & NRLDC

### ORDER

The present petition has been filed by the SJVN Limited (hereinafter referred to as 'Petitioner') seeking recovery/adjustment of Transmission Deviation Charges paid by SJVN Limited with regard to Nathpa Jhakri Hydro Power Station (6 x 250 MW) and Rampur Hydro Power Station (6 x 68.67 MW) in terms of the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020 ('2020 Sharing Regulations') during the period from 01.11.2020 to 30.09.2023 while providing primary response to the Grid. The Petitioner has made the following prayers:

- (a) *Admit the petition and direct proceedings to be initiated for considering the aspects which have arisen in the present petition;*
- (b) *Direct that no penalty on account of Transmission Deviation Charges may be payable by NJHPS and RHPS for the period from 01.11.2020 to 30.09.2023 and an adjustment/refund of Rs 2,08,29,442/- with regard to the Transmission Deviation Charges to be undertaken by NRLDC/NRPC for injection beyond ex-bus installed capacity/ GNA during the lean season and beyond the permissible limit of additional 10% during the peak season for the purposes of primary response;*

*(c) pass such further order or orders as this Hon'ble Commission may deem just and proper in the circumstances of the case.*

**Submissions of the Petitioner:**

1. The Petitioner has mainly submitted as follows:

- (a) Petitioner has established the Nathpa Jhakri Hydro Power Station (hereinafter referred to as the 'NJHPS') comprising six units of 250 MW each aggregating to 1500 MW in Shimla and Kinnaur Districts in the State of Himachal Pradesh. NJHPS is a run-of-river with pondage scheme to hold water sufficient for at least three hours of peaking and to be released for the generation of electricity, keeping in view the optimum use of water for the generation and supply of electricity to the beneficiaries.
- (b) Petitioner has also established the Rampur Hydro Power Station (hereinafter referred to as the 'RHPS') comprising six units of 68.67 MW at the downstream of NJHPS to harness and have optimum use of water getting released from the NJHPS again for generation and supply of electricity.
- (c) The generating units of NJHPS were commissioned during the year 2004-05, and the units of RHPS were commissioned during the year 2014-15. RHPS is built to operate in tandem with the generation of the upstream project, i.e., NJHPS and is dependent on the availability of water released during the operation of the NJHPS. RHPS is a unique generating station that does not have its own storage/pondage at all and is operating with water coming out from the Tail Race Tunnel (TRT) of NJHPS and thus is acting as a tail race extension of NJHPS. The water, so flowing after being used for generation at NJHPS, is diverted into the RHPS intakes through the TRT pond. The discharge of water from NJHPS is utilised by RHPS in steady state conditions, avoiding any spillage at the TRT of NJHPS to generate electricity, as mentioned above.
- (d) The scheduling of NJHPS and RHPS is being done by NRLDC in accordance with the provisions of prevailing Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2023 (hereinafter referred to '2023 Grid Code') and earlier in terms of Central Electricity Regulatory Commission (Indian Electricity Grid Code) Regulations, 2010 (hereinafter referred to '2010 Grid Code') & its amendments from time to time. With the droop setting in the range of 5 to 6 %, SJVN generating stations, viz., NJHPS and RHPS, are giving primary response to the Grid in accordance with the applicable provisions of the Grid Code.

- (e) For the period from 01.11.2020 to 30.09.2023, in accordance with the provisions of the 5<sup>th</sup> Amendment of 2010 Grid Code, RLDC scheduled the generating stations corresponding to 100 % of the Ex-Bus Installed capacity of generating stations, and additionally, a margin of 10 % overloading was permitted during peaking hours.
- (f) However, the transmission deviation charges have been levied on the generating stations as per the provisions of 2020 Sharing Regulations, even for giving primary support for Grid stability i.e. during the non-peak season if it exceeds 1482 MW for NJHPS and 407.90 MW for RHPS i.e. beyond the Ex-Bus injection in a time block in excess of the sum of Long-Term Access, Medium-Term Open Access and Short-Term Open Access and in peak season if it exceeds 1630.50 MW for NJHPS and 448.67 MW for RHPS that is beyond Ex-Bus injection in a time block in excess of the sum of Long-Term Access, Medium-Term Open Access and Short-Term Open Access and the additional margin of 10% overloading. Thus, for the period from 01.11.2020 to 01.10.2023, there is a contradiction between the 5<sup>th</sup> Amendment of the 2010 Grid Code, notified on 12.04.2017 and Regulation 12(1), notified under the 2020 Sharing Regulations, notified on 04.05.2020.
- (g) The Northern Regional Power Committee (NRPC) vide letter dated 31.01.2023 had issued the Regional Transmission Deviation Account in respect of Petitioner's power stations - NJHPS and RHPS, along with other utilities of Northern Region, for the period from April 2022 to December 2022 and thereafter regularly on a Monthly basis. During the high inflow period, SJVN's generating stations have been levied with substantial penalties due to the consideration of the peak season from June to September during FY: 2022-23.
- (h) Thereafter, NRPC vide letter dated 31.07.2023 has amended the Regional Transmission Deviation Account for the billing period November 2020 to April 2023, and the high inflow season for FY 2021-22 and FY 2022-23 was also finalised for NJHPS and RHPS under Special cases.
- (i) In the 212<sup>th</sup> Operation Co-ordination Sub-Committee Meeting of NRPC held on 20.10.2023, the High Flow Season during FY: 2023-24 for SJVN's Power Stations viz NJHPS & RHPS was again finalised from June to September in compliance with Regulation 45.8 (a) of 2023 Grid Code. For hydro generating stations, to confine high flow months to only 4 months and low flow months to 8 months does not take into

consideration the actual water inflow, i.e. the water inflow will slowly transition from low inflow months to high inflow months and vice versa. The same is dependent on various factors such as seasonal variations and precipitation patterns, etc. In light of the above considerations, strictly defining the peak season or high-inflow months as June to September and treating the rest as the non-peak season is not an accurate way to understand the implications of deviations caused by primary response.

- (j) The generators should not be penalised by imposition of Transmission Deviation Charges for giving primary response to the Grid, i.e., in case the Grid frequency decreases below the frequency band defined as per CERC DSM Regulations and the generator provides additional primary support to the Grid by the way of over injection, then such over injection should be excluded while calculating transmission deviation charges. Therefore, NRPC ought to have computed the transmission deviation charges, taking into account the exigencies arising from fluctuations in Grid frequency.
- (k) This Commission vide notification dtd. 07.02.2023 issued the first amendment of 2020 Sharing Regulations, effective from 01.10.2023 onwards, wherein the primary response given by generating stations has been excluded while calculating the transmission deviation charges. However, as per the CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020, transmission deviation charges amounting to Rs. 2.08 Crore has been levied upon NJHPS and RHPS during the period from 01.11.2020 to 30.09.2023 while giving primary response for Grid stability, which is in contradiction to the “5<sup>th</sup> Amendment of 2010 Grid Code” and “1<sup>st</sup> Amendment of CERC Sharing Regulations, 2020”.
- (l) Petitioner vide letter dated 29.08.2023 has requested to the Commission for wavier of transmission deviation charges levied on SJVN generating stations (NJHPS and RHPS) for over injection up to 110 % MCR during peaking hrs of lean season (from October to April months) for the period from 01.11.2020 to 30.09.23 in line with first amendment of CERC Sharing of Transmission Charges and Losses Regulations, 2020.
- (m) Issue of Transmission Deviation charges levied on NJHPS and RHPS was taken up in the 47<sup>th</sup> Commercial Sub-Committee Meeting of NRPC held on 28.08.2023 and the 48<sup>th</sup> Technical Coordination Committee and 70<sup>th</sup> NRPC Meeting held on 18.11.2023.

- (n) NRPC forum acknowledged the issue of generators and agreed that generators shall not be penalised for supporting the grid and also submitted that relaxation from a Regulation is not a mandate of NRPC; therefore, generators may approach the Commission for waiver of transmission deviation charges for the period 01.11.2020 to 30.09.2023.
- (o) Petitioner has requested to invoke powers to remove difficulties and relax as per Part 7 – “Miscellaneous” of the 2010 Grid Code, Chapter 10- of 2023 Grid Code, read with Section 27 and 28 of the 2020 Sharing Regulations to take into consideration that Transmission Deviation charges may not be applicable on the generating stations of SJVN Limited i.e. NJHPS and RHPS if stations are providing primary response and providing peaking support to the Grid.

**Hearing dated 22.11.2024:**

2. The counsel for the Petitioner submitted that the present Petition had been filed seeking relaxation of the provisions of transmission deviation charges provided under the 2020 Sharing Regulations and seeking the refund/ adjustment of the transmission deviation charges for over injection amounting to Rs. 2.08 crore levied upon its generating stations, namely, NJHPS and RHPS during the period from 1.11.2020 to 30.9.2023. After considering the submissions of the Petitioner, the Commission admitted the Petition.

**Hearing dated 19.05.2025:**

3. The Commission directed the Petitioner to implead the National Load Despatch Centre (NLDC) as a party to the Petition. The Commission directed the Petitioner to file the following information:
- (a) Clarify under which provision of the Sharing Regulations 2020 has been invoked for the waiver from payment of transmission deviation charges.
- (b) When was bill for such transmission deviation charges was raised on the Petitioner and whether he has paid the bill? If yes, details of payment.
- (c) Whether the Petitioner has sought permission to inject more than 10% overload capacity from any Authority, including CEA?
- (d) Proof to the effect that the Petitioner injected power under primary response, the corresponding SCADA data for injection, along with frequency dip data maintained by the Petitioner for each such event.

- (e) Whether the Petitioner injected power more than 100 % Installed capacity (which was billed under transmission deviation) when frequency was more than 50 Hz? List of such time blocks/ incidents for the disputed period.
4. The Commission also directed NLDC to submit the status of transmission deviation charges on other thermal, gas and hydro generating stations across India during the disputed period (i.e. 1.11.2020 to 30.9.2023). Whether other hydro generating stations also injected more than 10% overload capacity, as claimed by the Petitioner. If yes, provide the details of such hydro generating stations. Whether such an injection of more than 10% overload capacity is allowed under the CEA Standards.
5. In compliance with the RoP, the Petitioner impleaded NLDC as a party to the present Petition and revised the memo of parties.

**Submission by Petitioner in Compliance with the RoP for hearing dated 19.05.2025:**

6. The Petitioner vide affidavit dated 12.06.2025 has mainly submitted as under:
- (a) Petitioner has sought the relief from the Commission under the power vested in Part 7 – “Miscellaneous” of 2010 Grid Code, Chapter 10 of 2023 Grid Code, read with Section 27 and 28 of the 2020 Sharing Regulations.
- (b) The Bills were raised for Transmission Deviation Charges for the period from 01.11.2020 to 30.09.2023, and the Petitioner has made payments to the said bills. The Petitioner has also furnished a copy of the bills raised on the Petitioner along with payment details.
- (c) Petitioner has not obtained permission from any authority to inject power beyond the stipulated 10% overload capacity. The instances of injection exceeding the 10% overload threshold (excluding those attributable to primary response) are attributable to the inherent characteristics of the tandem operation between Nathpa Jhakri Hydro Power Station (NJHPS) and Rampur Hydro Power Station (RHPS), as elaborated below.

RHPS is built to operate in tandem with the generation of the upstream project, i.e. NJHPS, and is dependent on the availability of water released during the operation of the NJHPS. RHPS is a unique generating station which does not have its own storage / pondage at all and is operating with water coming out from the Tail Race Tunnel (TRT)

of NJHPS and thus is acting as a tail race extension of NJHPS. The water, so flowing after being used for generation at NJHPS, is diverted into the RHPS intakes through the TRT pond. It is the inherent property of Tandem operation that the discharge of water from NJHPS is utilised by RHPS in steady-state conditions, thereby avoiding any spillage of water at TRT of NJHPS to generate electricity.

The Tail Pond of NJHPS has a very limited storage capacity, i.e., approximately 19 seconds only. This minimal/limited storage capacity leads to water surges in the Tail pond during tandem operation of both generating stations. The tandem operation system, by design, attempts to manage and utilise the available discharge to the fullest extent without causing spillage. These transient surges lead to fluctuations in the net head available to both stations, i.e., during high surges, the net head at RHPS increases while it decreases at NJHPS, and conversely, during low surges, the net head at NJHPS increases while it decreases for RHPS. Consequently, during the high surges, the generation of RHPS increases slightly beyond 10 % overloading, and during the low surges, the generation of NJHPS increases slightly beyond 10 %.

- (d) Additionally, apart from the inherent properties of tandem operation, some deviations in power output beyond the 10% limit may also occur due to the technical tolerance limits of measurement instruments such as power transducers, which typically have an accuracy margin of  $\pm 1\%$ .
- (e) With regard to Proof to the effect that the Petitioner injected power under primary response, the Petitioner has furnished the details of effective scheduled generation, actual generation and frequency of the Grid, as compiled from the supporting files of DSM issued by NRPC, for the affected period from 01.11.2020 to 30.09.2023. Petitioner has also submitted the SCADA data of Rampur HPS for the affected period from 01.11.2020 to 30.09.2023.
- (f) Regarding the specific query of the commission, i.e., whether the Petitioner injected power more than 100% Installed capacity (Which was billed under transmission deviation) when the frequency was more than 50 Hz? List of such time blocks/incidents for the disputed period: the Petitioner has submitted the required data.

#### **Reply of NLDC:**

- 7. NLDC vide affidavit dated 12.06.2025 has mainly submitted as under:



- (a) The following generating stations had injected above more than 10% overload capacity on certain occasions during the period (i.e. 01.11.2020 to 30.09.2023) [while scheduling by RLDCs was restricted to 110% of (MCR-Aux)]. The % time duration during which the generators injected more than 10% of their maximum continuous rating-MCR, is tabulated below –

| Sl. No. | Name of the Plant | % time duration considering entire disputed period (i.e. 1.11.2020 to 30.9.2023) | % time duration considering the high hydro seasons (Jul-Oct) of the disputed period (i.e. 1.11.2020 to 30.9.2023) |
|---------|-------------------|----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| 1       | Chuzachen (ER)    | 0.00                                                                             | 0.01                                                                                                              |
| 2       | Tashiding (ER)    | 19.46                                                                            | 53.95                                                                                                             |
| 3       | Dikchu (ER)       | 17.40                                                                            | 37.96                                                                                                             |
| 4       | Rangit (ER)       | 0.00                                                                             | 0.01                                                                                                              |
| 5       | Salal (NR)        | 0.00                                                                             | 0.01                                                                                                              |
| 6       | Tanakpur (NR)     | 0.56                                                                             | 1.75                                                                                                              |
| 7       | Dulhasti (NR)     | 0.01                                                                             | 0.02                                                                                                              |
| 8       | Sewa 2 (NR)       | 0.00                                                                             | 0.00                                                                                                              |
| 9       | Rampur (NR)       | 1.61                                                                             | 5.00                                                                                                              |
| 10      | Koldam (NR)       | 0.12                                                                             | 0.33                                                                                                              |
| 11      | Karcham (NR)      | 4.29                                                                             | 13.01                                                                                                             |
| 12      | Ad Hydro (NR)     | 6.06                                                                             | 16.24                                                                                                             |
| 13      | Budhil (NR)       | 0.11                                                                             | 0.21                                                                                                              |
| 14      | Sainj (NR)        | 0.26                                                                             | 0.73                                                                                                              |
| 15      | Singoli (NR)      | 0.01                                                                             | 0.03                                                                                                              |
| 16      | Sorang (NR)       | 0.08                                                                             | 0.18                                                                                                              |

- (b) As per Regulation 35 of the CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022, the operating capacity of generating unit shall be the maximum continuous overload capacity up to 110% of rated capacity of the unit at the generator terminals during the high head conditions or high discharge conditions or both as guaranteed by the manufacturer shall be based on hydraulic parameters of the stations. As per the above, hydro generating units are permitted to inject up to the maximum continuous overload capacity of 110% of their rated capacity.

**Hearing dated 31.07.2025:**

8. The learned counsels for the Petitioner and Respondents made detailed submissions in the matter. The Commission permitted the parties to file their respective written submissions and reserved the matter for order.

**Written Submission of the Petitioner:**

9. The Petitioner in its written submission dated 22.08.2025, reiterated its earlier submissions and has mainly submitted that the Petitioner ought not to have been levied a penalty of Rs 2.08 Crore due to Transmission Deviation Charges for the period 01.11.2020 to 30.09.2023 for injection beyond ex-bus installed capacity/ GNA during the lean season and beyond the permissible limit of additional 10% during the peak season for the purposes of primary response.

**Analysis and decision:**

10. Petitioner has submitted that from 01.11.2020 to 30.09.2023, the transmission deviation charges have been levied on the generating stations of the Petitioner as per the provisions of 2020 Sharing Regulations, even for giving primary support for Grid stability for Ex-Bus injection in a time block in excess of the sum of Long-Term Access, Medium-Term Open Access and Short-Term Open Access during the non-peak season and in peak season for Ex-Bus injection in a time block in excess of the sum of Long-Term Access, Medium-Term Open Access and Short-Term Open Access and the additional margin of 10 % overloading. Thus, there is a contradiction between the 5<sup>th</sup> Amendment to the 2010 Grid Code, notified on 12.04.2017, and Regulation 12 (1) of the 2020 Sharing Regulations, notified on 04.05.2020.
11. Petitioner has also submitted that it should not be penalised by imposition of Transmission Deviation Charges amounting to Rs. 2.08 Crore for giving primary response to the Grid, i.e., in case the Grid frequency decreases below the frequency band defined as per CERC DSM Regulations and the generator provides additional primary support to the Grid by the way of over injection, then such over injection should be excluded while calculating transmission deviation charges.
12. NLDC has submitted that as per Regulation 35 of the CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022, the operating capacity of generating unit shall be the maximum continuous overload capacity up to 110% of rated capacity of the unit at the generator terminals during the high head conditions or high discharge conditions or both as guaranteed by the manufacturer shall be based on hydraulic parameters of the stations. As per above, hydro generating units are permitted to inject up to the maximum continuous overload capacity of 110% of their rated capacity.

13. We have considered the submissions of Petitioner and Respondents. The issue which arises for determination is:

**Issue No. 1: Whether the Petitioner is liable to pay the transmission deviation charges on NJHPS and RHPS for injection beyond ex-bus installed capacity during the lean season and beyond the permissible limit of an additional 10% during the peak season for the purposes of primary response during the period from 01.11.2020 to 30.09.2023?**

**Issue No. 2: If answer to issue no. 1 above is in affirmative, whether the Petitioner is eligible for a refund of Rs 2.08 Crore levied on account of transmission deviation charges during the period 01.11.2020 to 30.09.2023?**

14. Now we proceed to discuss the above issues.

15. The Petitioner has contended that it is not liable to pay the transmission deviation charges in respect of NJHPS and RHPS for injection beyond ex-bus installed capacity/GNA during the lean season and beyond the permissible limit of additional 10% during the peak season for the purposes of primary response during the period from 01.11.2020 to 30.09.2023 and sought to refund the transmission deviation Charges amounting to Rs. 2.08 Crore levied on the Petitioner's Projects which have already been paid by the Petitioner.

16. Regulation 12 (1) of the 2020 Sharing Regulations provides as under:

***"12. Transmission Deviation***

*(1) Transmission Deviation, in MW, shall be computed as under:*

*(a) For a generating station, net metered ex-bus injection, in a time block in excess of the sum of Long Term Access, Medium Term Open Access and Short Term Open Access:*

*Provided that for a hydro-generating station, overload capacity of 10% during peak season shall be taken into account.*

*(b) For a State net metered ex-bus injection or net metered drawal, in a time block, in excess of the sum of Long Term Access and Medium Term Open Access.*

*(c) For any drawee DIC, which is a regional entity other than distribution licensees, net metered drawal in a time block in excess of the sum of Long Term Access, Medium Term Open Access and Short Term Open Access."*

As per Regulation 12(1) stated above, a generating station, including a hydro generating station, is liable to pay the transmission deviation charges for any injection in excess of the sum of Long Term Access, Medium Term Open Access and Short Term Open Access. Further, for a hydro generating station during the peak season, injection up to

an overload capacity of 10% shall not be considered for transmission deviation.

In terms of the above, the Petitioner's projects, being hydro generating stations, are liable to pay the transmission deviation charges for any injection in excess of the sum of Long Term Access, Medium Term Open Access and Short Term Open Access for the period 01.11.2020 to 30.09.2023 and during the peak season, for the injection beyond the overload capacity of 10%.

17. The Petitioner has relied on the provisions of the 2010 Grid Code (including the 5<sup>th</sup> Amendment) and contended that it should not be liable to pay the transmission deviation charges as it has over-injected for the purpose of providing the primary response to the grid. The relevant provisions of the 2010 Grid Code (including the 5<sup>th</sup> Amendment) provide as under:

***"5.2 System Security Aspects***

*All coal/lignite based thermal generating units of 200 MW and above, Open Cycle Gas Turbine/Combined Cycle generating stations having gas turbines of more than 50 MW each and all hydro units of 25 MW and above operating at or up to 100% of their Maximum Continuous Rating (MCR) shall have the capability of (and shall not in any way be prevented from) instantaneously picking up to 105%, 105% and 110% of their MCR, respectively, when the frequency falls suddenly. After an increase in generation as above, a generating unit may ramp back to the original level at a rate of about one percent (1%) per minute, in case continued operation at the increased level is not sustainable. Any generating unit not complying with the above, requirement, shall be kept in operation (synchronized with the Regional grid) only after obtaining the permission of RLDC.*

*For the purpose of ensuring primary response, RLDCs/SLDCs shall not schedule the generating station or unit(s) thereof beyond ex-bus generation corresponding to 100% of the Installed capacity of the generating station or unit(s) thereof. The generating station shall not resort to Valve Wide Open (VWO) operation of units whether running on full load or part load, and shall ensure that there is margin available for providing Governor action as primary response. In case of gas/liquid fuel based units, suitable adjustment in Installed Capacity should be made by RLDCs/SLDCs for scheduling in due consideration of prevailing ambient conditions of temperature and pressure vis-à-vis site ambient conditions on which installed capacity of the generating station or unit(s) thereof have been specified:*

*Provided that scheduling of hydro stations shall not be reduced during high inflow period in order to avoid spillage:*

*Provided further that the VWO margin shall not be used by RLDC to schedule Ancillary Services."*

As per the above, all hydro units of 25 MW and above should be capable of operating up to 110% of MCR in the event of a frequency drop. It has also been provided that RLDCs/SLDCs shall not schedule the generating station or unit(s) thereof beyond ex-bus generation corresponding to 100% of the installed capacity of the generating station

or unit(s) for the purpose of ensuring the primary response.

- 18.** We note that the 2010 Grid Code does not put any restriction on the application of the transmission deviation charges while giving the primary response, which is to be levied as per the 2020 Sharing Regulations. Therefore, the Petitioner's contention that it should not be liable to pay the transmission deviation charges as it has over-injected for the purpose of providing the primary response to the grid, is incorrect.
- 19.** It is also noted from the data furnished by the Petitioner that the Petitioner actually over-injected when the frequency was high, whereas the primary response in case of high frequency should have led to under-injection; hence, the Petitioner's contention that it always over-injected due to primary response is also not correct. On a specific query of the Commission as to how it could over inject beyond 10% when CEA Standards permit an overload capacity of 10%, Petitioner submitted that it has not obtained permission from any authority to inject power beyond the stipulated 10% overload capacity and the instances of injection exceeding the 10% overload threshold (apart from the ones where the same is on account of primary response) are actually due to the inherent characteristics of the tandem operation between NJHPS and RHPS. The above provisions of the Grid Code do not support the contention of the Petitioner that it over injected beyond 10% for the primary response. Further, the inherent operating characteristics of a project do not permit the Petitioner to get a relief from the applicability of transmission deviation charges which are levied as per the relevant Regulations.
- 20.** The Petitioner has also relied on CERC (Sharing of inter-State Transmission Charges and Losses) (First Amendment) Regulations, 2023, which were made effective from 01.10.2023. In this regard, we are of the view that as the period of dispute in the present Petition is from 01.11.2020 to 30.09.2023, the Petitioner's reliance on CERC (Sharing of inter-State Transmission Charges and Losses) (First Amendment) Regulations, 2023 is not legally sustainable.
- 21.** In view of the above discussions, we are of the considered view that the transmission deviation charges have been levied on to the Petitioner's Project as per the prevailing Sharing Regulations, therefore, we are not inclined to accept the prayer of the Petitioner to refund the transmission deviation charges amounting to Rs. 2.08 Crores levied for the period 01.11.2020 to 30.09.2023 in respect of NJHPS and RHPS.

**22.**As per the data furnished by NLDC, it is observed that a number of hydro generating stations over injected beyond 10% overload capacity. As per Regulation 35 of the CEA (Technical Standards for Construction of Electrical Plants and Electric Lines) Regulations, 2022, the operating capacity of a hydro generating unit shall be the maximum continuous overload capacity up to 110% of rated capacity of the unit at the generator terminals during the high head conditions or high discharge conditions or both as guaranteed by the manufacturer shall be based on hydraulic parameters of the stations. Any over-injection beyond the limits may lead to stress on the civil works and the electro-mechanical equipment of the Hydro plant. 2023 Grid Code requires the generating station to obtain approval from CEA in case it has an overload capability of more than 10%. NLDC is directed to instruct the generating stations to obtain approval from the Authority before they can inject more than 10% overload.

**23.**The Petition No. 295/MP/2024 is disposed of in terms of the above discussion and findings.

**sd/-  
(Ravinder Singh Dhillon)  
Member**

**sd/-  
(Harish Dudani)  
Member**

**sd/-  
(Ramesh Babu V)  
Member**

**sd/-  
(Jishnu Barua)  
Chairperson**