



नईदिल्ली  
NEW DELHI

Petition No.:261/MP/2019

कोरम/ Coram:

श्रीआई. एस. झा, सदस्य/ Shri I. S. Jha, Member  
श्रीअरुण गोयल, सदस्य/ Shri Arun Goyal, Member  
श्री पी. के. सिंह, सदस्य/ Shri P. K. Singh, Member

आदेश दिनांक/ Date of Order: 05<sup>th</sup> of April, 2023

**IN THE MATTER OF:**

Petition under Regulation 12 of the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2014 as amended from time to time read with the Central Electricity Regulatory Commission (Cross Border Trade of Electricity) Regulations, 2019.

**AND IN THE MATTER OF**

PTC India Limited,  
2<sup>nd</sup> Floor, NBCC Towers,  
15, Bhikaji Cama Place,  
New Delhi – 110066

...Petitioner

**VERSUS**

1. National Load Despatch Centre  
B-9, 1st Floor, Qutab Institutional Area,

Shaheed Jeet Singh Sansanwal Marg,  
Katwaria Sarai, New Delhi – 110 016

2. Bihar State Power Holding Company Limited,  
1<sup>st</sup>Floor, Vidyut Bhawan,  
Bailey Road, Jawahar Lal Nehru Marg,  
Patna-800001, Bihar.
3. South Bihar Power Distribution Company Limited,  
2<sup>nd</sup>Floor, Vidyut Bhawan,  
Bailey Road, Jawahar Lal Nehru Marg,  
Patna-800001, Bihar.
4. North Bihar Power Distribution Company Limited,  
3<sup>rd</sup>Floor, Vidyut Bhawan,  
Bailey Road, Jawahar Lal Nehru Marg,  
Patna-800001, Bihar.
5. West Bengal State Electricity Distribution Company Limited,  
Vidyut Bhawan, Block-DJ,  
Sector-II, Bidhan Nagar,  
Kolkata-700091, West Bengal.
6. GRIDCO Limited,  
Janpath,  
Bhubaneswar -751022, Odisha.
7. Assam Power Distribution Company Limited  
4<sup>th</sup>Floor, Bijulee Bhawan Paltan Bazar,  
Guwahati-781001, Assam

...Respondents

**Parties Present:**      **Shri Ravi Kishore, Advocate, PTC**  
                                 **Shri Keshav Singh, Advocate, PTC**  
                                 **Shri Navin Prakash, Advocate, BSPHCL**  
                                 **Shri Alok Mishra, NLDC**

## आदेश/ ORDER

The Petitioner, PTC India Limited (hereinafter referred as “PTC”) has been designated as a nodal agency for transfer of power generated by Mangdechhu HEP, located in Bhutan, to various beneficiary States of India. The Petitioner has filed the petition under Regulation 12 of the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2014 (hereinafter referred as “DSM Regulations, 2014”) as amended from time to time read with the Central Electricity Regulatory Commission (Cross Border Trade of Electricity) Regulations, 2019 (herein after referred as “CBTE Regulations, 2019”). The Petitioner is seeking not to levy DSM charges on the power exported from Mangdechhu HEP to India.

2. The Respondent No.1, National Load Despatch Centre (herein after referred to as “NLDC”) is responsible for ensuring integrated operation of national power system, coordination for trans-national exchange of power etc.
3. The Respondent No. 3 is responsible for promoting a coordinated development of generation, supply and distribution of electricity in the State of Bihar.
4. The Respondent No.’s 3 to 7 are the distribution utilities of the State of Bihar, West Bengal, Odisha and Assam.
5. The Petitioner has made the following prayers:
  - a) *Grant relaxation to the effect that the provisions of Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations, 2014 shall not be applicable to the power exported from Mangdechhu HEP to India;*
  - b) *pass such other order(s) as this Hon’ble Commission may deem fit and proper in the facts and the circumstances of the case.*

### **Brief Background:**

6. Mangdechhu Hydro Electric Project (4x180=720 MW) is a run-of river scheme, located on river Mangdechhu in Bhutan and is being implemented under Inter-Governmental (IG) Mode by the Royal Government of Bhutan (RGoB) and the Government of India (GoI). As

per the agreement dated 30.04.2010, amended through the Protocol of Agreement dated 23.04.2019, the Government of India has provided 30% of the project cost as grant and the balance 70% of the project cost as loan. The project is expected to generate 3008 MU in 90% dependable year. Further, it has been agreed by the Royal Government of Bhutan to sell all surplus power from Mangdechhu HEP to the Government of India at mutually agreed tariff. The Ministry of Power (MoP) through its letter dated 07.03.2019 allocated surplus power from Mangdechhu HEP to the beneficiary States in India i.e. Assam, Bihar, Odisha and West Bengal in the following ratio respectively 17.01 %, 31.34%, 9.33%, and 27.32%. The balance 15% is unallocated power.

7. Through its letter dated 06.05.2019 MoP directed the PTC to submit a Memorandum expressing its willingness to be the nodal agency for transfer of power from Mangdechhu HEP to India. As per the MoU, PTC accepted (a) to be the nodal agency for transfer of power from Mangdechhu HEP to India (b) to sign Power Purchase Agreement (PPA) with Government of Bhutan or its authorized entity and (c) to sign Power Sales Agreement (PSA) with the States/ power utilities in India in accordance with the allocation scheme decided by the Ministry of Power (MoP).
8. The Ministry of Power (MoP), Government of India vide letter dated 06.08.2019, informed the Commission that the commissioning of Unit-1 & II of the Mangdechhu HEP have been achieved on 28.06.2019 and 05.07.2019 respectively and the remaining two units will be commissioned soon. However, the Power Purchase Agreement (PPA) between the PTC India and Druke Green Power Corporation (DGPC) Limited, Bhutan could not be executed as Bhutan has expressed its reservation in adopting the Deviation Settlement Mechanism (DSM) applicable in India for the power being transferred to India from the Mangdechhu HEP on various grounds including the following:
  - (i) The Inter-Governmental Agreement for Mangdechhu plant pre-dates to GoI's Cross Border Transfer of Electricity Guidelines and the DSM Regulations, 2014.
  - (ii) In the past DSM has not been applied to hydro electric projects (HEPs) set up in Bhutan in Inter Governmental Mode under the agreement for bilateral cooperation between India and Bhutan.
  - (iii) The RGoB has agreed to consider applicability of DSM regulations for future HEPs including projects being implemented under Inter Governmental mode.

9. Through this letter, it was also informed to the Commission that the Government of India has agreed to the request of the RGoB only specific to the Mangdechhu HEP and accordingly advised the Commission to extend necessary exemption to Mangdechhu HEP from the provision of DSM Regulations, 2014 for the power being exported to India from the Mangdechhu HEP.
10. On 13.8.2019, the PTC India filed the present petition under which the PTC prayed to grant exemption to Mangdechhu HEP from the provisions of DSM Regulations, 2014 for the power exported from the HEP to India.
11. Subsequently, on 15.08.2019, the PPA has been signed between PTC India and DGPC, Bhutan. On 30.08.2019, PTC signed Power Sales Agreement (PSA) with power utilities in India which are beneficiaries of the Mangdechhu HEP.

**Submission of the Petitioner (PTC):**

12. The Petitioner has submitted as follows:
  - a) The Royal Government of Bhutan requested the Government of India not to levy DSM charges on the power exported to India from the Mangdechhu HEP because Inter-Governmental Agreement pre-dates CBTE Regulations, 2019 and DSM Regulations, 2014. In the past, DSM charges were not applied on the projects developed under Inter-Governmental mode.
  - b) That the Royal Government of Bhutan agreed to consider application of DSM Regulations on future projects.
  - c) That the Government of India has agreed to the request of the Royal Government of Bhutan for relaxation of DSM charges only specific to Mangdechhu HEP.
  - d) That the Ministry of Power, Government of India vide letter No.23/29/2019-R&R dated 06.08.2019, has advised this Commission that necessary exemption may be provided to the Mangdechhu HEP from the provisions of DSM Regulations, 2014 for the power exported from Mangdechhu HEP to India.
  - e) That this Commission under Regulation 12 of DSM Regulations, 2014 has power to relax any provision of the Regulations.

**Hearing dated 26.11.2019:**

13. After hearing the learned counsels for the parties, the Commission admitted the Petition and

directed the Petitioner to issue notice to the Respondents. The Petitioner was further directed to file revised memo of parties impleading all beneficiary States as Parties to the petition. The Respondents were directed to file their respective reply and the Petitioner was directed to file its Rejoinder, if any, subsequently.

**Submissions of Respondent No.1 (NLDC):**

14. NLDC has submitted as under:

- a) The installed capacity and Power Purchase Agreement (PPA) rates of the various HEPs of Bhutan from which India is purchasing power are as indicated in table below:

| <b>Station Name</b> | <b>Installed Capacity</b> | <b>PPA rate (Rs./unit)</b>                                            |
|---------------------|---------------------------|-----------------------------------------------------------------------|
| Tala HEP            | (6X170 MW): 1020 MW       | Rs. 2.12                                                              |
| Chukha HEP          | (4X84 MW): 336 MW         | Rs. 2.55                                                              |
| Kurichu HEP         | (4X15 MW): 60 MW          | Rs. 2.12                                                              |
| Mangdechhu HEP      | (4X180 MW): 720 MW        | Rs. 4.12<br>(up to 5 years thereafter escalation @ 10% every 5 years) |
| Dagachhu HEP        | (2X63 MW): 126 MW         | Selling in Short Term market                                          |

- b) The percentage share allocation of Indian beneficiaries from various HEPs located in Bhutan is provided in the following table:

| <b>Beneficiaries</b> | <b>TALA HEP (%)</b> | <b>CHUKHA HEP (%)</b> | <b>KURICHU HEP (%)</b> | <b>MANGDECHHU HEP (%)</b> |
|----------------------|---------------------|-----------------------|------------------------|---------------------------|
| Assam                | 0                   | 0                     | 0                      | 20.02                     |
| Bihar                | 25.5                | 29.63                 | 0                      | 36.87                     |
| Delhi                | 2.94                | 0                     | 0                      | 0                         |
| DVC                  | 5.54                | 10.37                 | 50                     | 0                         |
| Haryana              | 1.47                | 0                     | 0                      | 0                         |
| J&K                  | 1.77                | 0                     | 0                      | 0                         |
| Jharkhand            | 11.46               | 10.74                 | 0                      | 0                         |
| Odisha               | 4.25                | 15.19                 | 0                      | 10.97                     |
| Punjab               | 2.94                | 0                     | 0                      | 0                         |
| Rajasthan            | 1.47                | 0                     | 0                      | 0                         |
| Sikkim               | 0                   | 2.22                  | 0                      | 0                         |
| Uttar Pradesh        | 4.41                | 0                     | 0                      | 0                         |
| West Bengal          | 38.25               | 31.85                 | 50                     | 32.14                     |
| <b>Total</b>         | <b>100</b>          | <b>100</b>            | <b>100</b>             | <b>100</b>                |

- c) That a meeting was conducted on 19.08.2019 at NLDC, India between Bhutan, NLDC and Druk Green Power Corporation, regarding scheduling and accounting methodology of Bhutan HEPs. During the meeting it was informed by the Bhutan Power System Operator (BPSO) that BPSO calculates the next day export capability of each HEP (except Dagachhu HEP as it is selling power under STOA) at Bhutan boundary. The same is informed to ERLDC by 6 AM on the day preceding the date of delivery of power based on the ex-bus declared capability of the respective HEP, the historical data of the power flow through the export feeders (to India) and the forecasted Bhutan load. The actual injection by Tala HEP, Chuka HEP, and Dagachhu HEP is computed based on the methodology developed as per the direction of Honorable Commission in the petition no 187/ MP/ 2014. The computation of actual injection from each HEP of Bhutan is performed on weekly basis by ERLDC with the help of data collected from the SEMs installed at the corresponding Indian substations.
- d) That the ERPC secretariat publishes the weekly DSM account based on the schedule and actual injection data provided by ERLDC. As per the present methodology, the DSM liability of Tala HEP, Chukha HEP, Kurichu HEP and Mangdechhu HEP (interim arrangement) are borne by their respective Indian beneficiaries in the ratio of percentage share in the corresponding generator. The energy rate of the corresponding generator is considered as the deviation rate (irrespective of grid frequency) for settlement of DSM account. Only the charges computed for the deviation of Dagachhu HEP is borne by M/s Tata Power Trading Company Ltd. (TPTCL), on behalf of Dagachhu HEP. The charges for deviation for any time block for Dagachhu HEP is based on the actual deviation rate in the corresponding time block.
- e) 15% share of Tala HEP is with the Norther Region beneficiaries. Thus, the deviation of Tala HEP corresponding to 15% share is adjusted post facto in the inter-regional schedule of ER-NR path, after deducting the transmission loss of Eastern Region.
- f) The monthly payment of generation charges to the Bhutan HEPs (except Dagachhu HEP) are being paid by the Indian beneficiaries on actual power receipt (unlike on schedule power) at Indo-Bhutan periphery.
- g) That the royalty energy to Bhutan for hydro generation at Jaldhaka HEP, owned and operated by West Bengal DISCOM is 1.73 MU per year. The equivalent monthly

energy for royalty power is adjusted in West Bengal's share (in MWh) from Chukha HEP in monthly Regional Energy Account (REA) prepared by ERPC.

- h) That the Monthly Regional Energy accounting of Mangdechhu is computed based on the energy receipt at 400kV Jigmeling substation through 400kV Mangdechhu – Jigmeling quad lines.
- i) NLDC also indicated the issue being faced in following the present methodology for the computation of Energy Accounting as indicated below:
  - i. Presently Mangdechhu HEP is radially connected with 400kV Alipurduar (India) ISTS substation through 400kV Mangdechhu-Jigmeling quad circuit and 400kV Jigmeling- Alipurduar double circuit line. The 400kV/220kV ICTs at Jigmeling and 400kV/132kV ICTs at Mangdechhu HEP are not loaded and kept at switched off position. It has been further submitted that after charging of these ICTs, the generation of Mangdechhu HEP will get mixed with Tala HEP, Chukha HEP, Kurichu HEP and Dagachhu HEP and it will increase the complexity in segregation of plant wise energy.
  - ii. In some part of the year the actual station wise as well as cumulative injection from the Bhutan HEPs (after Bhutan internal consumption) computed based on the energy accounting methodology adopted are more than the cumulative installed capacity of the plants indicating that there may be a fundamental fallacy in the present adopted methodology. Therefore, there is a need of a more scientific approach towards accounting methodology.
  - iii. Further, as per DSM data for the FY 2018-19, the maximum deviation was to the tune of -900 MW to 600 MW in a time block. Such large deviation may hamper grid security.
  - iv. The methodology adopted sometimes leads to delay in the publication of Regional Energy Accounting (REA) data by the ERPC secretariat. This is because Bhutan also imports power to the tune of maximum 100-200 MW from India during lean generation period especially during the months of December to March. Thus, the issuance of Regional Energy Accounts by the ERPC gets delayed till there is net export by Bhutan in the future months and the entire import energy by Bhutan has been squared off. For example, the publication of REA data by ERPC for the month of November, 2019 was delayed as the net energy injection of Kurichu HEP after segregation of power was negative during the month.



- v. As per Kurichu amendment PPA, Bhutan will export the excess power to India from its HEPs after meeting its internal consumption from its cheapest source of power. Further, Bhutan and Indian power system are synchronously connected with each other in a mesh network. Thus, any internal consumption of Bhutan drawn through import of power from India through any feeder shall be considered as met from the cheapest source. Also, in future as the load growth happens in Bhutan, Indian constituents will be receiving less power from the cheaper power plants of Bhutan.
  - vi. Further, there exists no suitable tariff and settlement mechanism for import of power by Bhutan from India.
  - vii. In view of commissioning of new generating stations and interconnected network in Bhutan, the accounting, segregation of plant wise energy & settlement will get more complicated. Thus, the relaxation, if any, granted to Mangdechhu HEP from the provisions of DSM Regulations, 2014 would not be applicable to the power exported only from Mangdechhu HEP to India and will spill over to other HEPs also located in Bhutan.
- j) That in a special meeting held at ERPC, Kolkata on 17.05.2019, the matter regarding scheduling methodology, metering arrangements, accounting of power etc. with respect to Mangdechhu Hydro Project was discussed. It was decided in the meeting that:

*“Since power from five different hydro stations of Bhutan are now programmed to be injected into the Indian grid, there is a need for comprehensively look into the entire network of Bhutan for rationally segregating the power from different sources through installation of meters at suitable locations. For this, PTC shall furnish the necessary details of the Bhutan grid for study by ERPC, ERLDC and NLDC. Thereafter, meeting shall be convened by ERPC where ERLDC, NLDC, PTC and Bhutan would be involved to resolve the issue.*

*Till the above is implemented, the energy accounting w.r.t Mangdechhu power shall be done by ERPC Secretariat as per methodology suggested by Bhutan with prudence check by ERPC Secretariat”*

- k) That as per the Guidelines for Import/Export (Cross Border) of Electricity issued by Ministry of Power dated 18.12.2018

*“The transmission charges, scheduling, metering, accounting, deviation settlement, secure grid operations involving the Indian Grid and any other*

*related operational mechanism shall be governed in accordance with the applicable Regulations of the Government of India. The Ministry of Power shall notify Nodal Agency for each neighboring country which shall be responsible for settlement of grid operation related charges as per CERC regulations.”*

- l) NLDC also submitted that the CBTE Regulations, 2019 on the matter of metering, energy accounting and settlement for cross border transactions stipulate as under:

*“26. Metering, Energy Accounting & Settlement*

*(1) The Energy Accounting for all the electricity imported from a neighbouring country to India or exported from India to a neighbouring country shall be carried out on a net basis for each country by the concerned Regional Power Committee(s) (RPC(s)) in India.*

*(2) The Settlement Nodal Agency shall be a member of the Regional Deviation Pool Account acting on behalf of the selling entity or buying entity of the neighbouring country. In case a neighbouring country is connected to more than one region of India, Settlement Nodal Agency shall be member of respective Regional Deviation pool.*

*(3) The Settlement Nodal Agency shall pay or receive charges on account of deviation to or from Regional Deviation Pool maintained by NLDC as per Deviation Pool account issued by Regional Power Committee. The Settlement Nodal Agency shall settle the same with the selling entity or buying entity of the neighbouring country, as the case may be.*

*(4) Reactive Energy Charges shall be paid by the Settlement Nodal Agency in accordance with Grid Code, and the said charges shall be collected from the selling entity or buying entity of the neighbouring countries, as the case may be.*

*(5) Weekly meter readings (import or export in terms of MWh and MVarh) for actual injection or drawl by entities located in neighbouring country shall be provided to the concerned RLDC(s) or NLDC through Settlement Nodal Agency by Tuesday noon for the previous week so as to facilitate energy accounting.*

*(6) The charges for deviation from schedule at the inter-connection point shall be as per the DSM Regulations in India. The segregation of charges within the neighbouring country shall be carried out by the agency designated by the concerned neighbouring country.*

*(7) All payments shall be settled by the parties through the Settlement Nodal Agency as per timeline specified in the DSM Regulations.”*

- m) That in accordance with the CBTE Regulations, 2019, the Government of India vide order no. 14/1/2017- Trans-Pt (1) dated 26.11.2019 has nominated NTPC Vidyut

Vyapar Nigam Ltd. (NVVN) as Settlement Nodal Agency (SNA) for settlement of grid operation related charges with Bhutan.

- n) That the methodology adopted for computation of monthly regional energy account and computation of net generation from the hydro plants on 15 min basis for settlement of deviation are not the same due to complexity and interconnection within Bhutan. Based on the available past data of schedule and actual generation of individual Bhutan plant, it has been observed that there are significant deviations in each individual Bhutan plant. However, when the schedule and actual energy of individual generator is aggregated to arrive at Bhutan net schedule and actual, then deviation between Bhutan net schedule and Bhutan net actual injection is improved.
- o) NLDC has suggested that:
- i. SEMs should be installed on all the feeders connected between India and Bhutan, which shall be used for computing DSM liability and monthly REA.
  - ii. The net injection from Bhutan may be computed after considering the algebraic sum of all 400kV, 220kV, 132kV, 33kV, 11kV feeders between India and Bhutan. The net injection from Bhutan so computed after deducting the injection of Dagachhu HEP may be segregated for Tala HEP, Chukha HEP, Kurichu HEP and Mangdechhu HEP proportional to their ex Bhutan capability as declared by BPSO on a day ahead or on the day of operation (for revision) basis.
  - iii. The Commission has given exemption from DSM to the nuclear plants and that the DSM calculated for the nuclear plants are borne by their beneficiaries in proportion to their share. NLDC suggested that similar arrangement may be undertaken for DSM liabilities for all Bhutan HEPs i.e. the DSM liability may be calculated as per the DSM Regulations, 2014 for all Bhutan HEPs (ex-Bhutan), including those which are given exemption from DSM and the liability may be borne by the respective beneficiaries.
  - iv. Suitable imbalance handling mechanism for the upcoming projects as well as existing projects, is needed for better, safe and secure operation of Indian Grid as well as Bhutan Grid.
  - v. Suitable imbalance handling mechanism should be evolved to handle deviations in power transactions with reference to schedule of export and

import of power. The seasonal / diurnal energy transactions between two countries should be converted into separate reciprocal contracts with distinct buyer and seller in each direction.

- vi. Implementation of scheduling mechanism based on coordinated multilateral model should help the System Operator to take security related decisions and the market players to take commercial decisions.
- vii. In accordance with the recommendation of the Forum of Regulators (FOR) as indicated in FOR report on Scheduling, Accounting, Metering and Settlement of Transactions in Electricity (SAMAST), Deviation should be computed with reference to the implemented schedule and that the Deviation Settlement Mechanism should be based on “causer pays” principle, similar to the mechanism at the Inter State level.
- viii. The power transactions between India and Bhutan being transnational in nature, involves different departments of both the governments. Hence, the transactions should be in line with the policy Guidelines for Import/Export (Cross Border) of Electricity, 2018 of Government of India and CBTE Regulations, 2019.

**Submissions of the utilities of the State of Bihar (Respondent No. 2, 3 and 4):**

15. The Respondents have jointly submitted as follows:

- a) The Petitioner has not mentioned which provision(s) of the said regulations need to be relaxed. The Petitioner is seeking to invoke the provision related to ‘*Power to Relax*’ under the DSM Regulations, 2014 but no regulation or regulations have been cited from which relaxation has been sought as no blanket provision for non-applicability of the DSM can be effected by the Commission.
- b) Advisory issued to the Commission by the Union Government can be a justification for applying the provisions of the ‘*Power to Relax*’ but keeping the entire power imported from the Mangdechhu HEP out of the ambit of the DSM Regulations, 2014 should not be permitted. The exemption will further cause serious problems in the operation of the Grid especially during off period of the day.
- c) If DSM Regulations, 2014 are to be relaxed, it should be relaxed both for drawee entity and the Mangdechhu HEP.
- d) The Eastern Region and the North-Eastern Region are small regions in comparison to other regions of the Country in so far as the power consumption is concerned and

accordingly it is also a matter for evaluation whether these regions can absorb the generation from this power station without sacrificing the concept of '*Economic Despatch of Electricity*'. As National Load Despatch Centre will act as the System Operator for cross border trade of electricity, this Commission may also like to hear their views on the issue.

**Rejoinder on behalf of the Petitioner:**

16. The Petitioner has filed the rejoinder on 07.02.2020 vide which it has reiterated the submissions already made in the plaint. Hence, the same is not being reproduced here for the sake of brevity.

**Hearing dated 18.10.2022:**

17. During the hearing the Petitioner was directed to submit the details of PPAs and methodology already under implementation within two weeks. Subject to the above the Commission reserved the matter for order.
18. In compliance with the directions of the Commission dated 18.10.2022, the following was submitted by the petitioner:
- a) Copy of PPA dated 15.08.2019 entered between PTC and Drunk Green Power Corporation Limited, Bhutan.
  - b) Copy of PSA dated 30.08.2019 entered between PTC and North Bihar Power Distribution Company Ltd., South Bihar Power Distribution Company Ltd., West Bengal Electricity Distribution Company Ltd., GRIDCO Ltd., Assam Power Distribution Company Ltd.
  - c) Note on Energy Accounting and Settlement Methodology for Mangdechhu HEP.

**Analysis and Decision:**

19. We have heard the learned counsels for the Petitioner and the Respondents and have carefully perused the records and considered the submissions of the parties.
20. The only issue that arises for adjudication is "*whether relaxation to the Petitioner in the manner of non-application of the provisions of Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related Matters) Regulations 2014 can be granted for the power exported from Mangdechhu HEP to India*".

21. We observe that the Mangdechhu HEP has been developed under Inter-Governmental mode by the Royal Government of Bhutan and the Government of India and the beneficiaries of the project are the utilities located in the state of Assam, Bihar, Odissa and West Bengal. The Unit – I and Unit – II of the HEP were commissioned on 28.06.2019 and 05.07.2019 respectively. All the units of the HEP were declared to be under commercial operations by 16.08.2019. Further, Power Trading Corporation (PTC) India has been designated as a nodal agency for transfer of power from Mangdechhu project to India through the Ministry of Power (MoP)'s letter dated 06.05.2019.
22. We further observe from the letter issued by the MoP, Government of India dated 06.08.2019 that the Royal Government of Bhutan had expressed its reservation on applicability of DSM on power to be exported to India from Mangdechhu HEP. Based on the request of Bhutan, the MoP Government of India through the above indicated letter, has requested this Commission that necessary exemption may be provided to Mangdechhu HEP from the provision of the DSM Regulations, 2014 for the power exported from Mangdechhu HEP to India as a special case. PTC, the designated nodal agency for the transfer of Power from Mangdechhu HEP to India, has filed this petition requesting to grant exemption to the power exported from Mangdechhu HEP from the DSM Regulations, 2014.
23. *Per contra*, NLDC has raised a number of issues in the present methodology for the computation of Energy Accounting and Settlement. NLDC has also pointed out that there is a need for more scientific approach for energy accounting and deviation settlement. Further, it has been pointed that there is also a need for a suitable settlement mechanism for import of power by Bhutan from India during lean generation period when Bhutan draws power to the tune of 100-200 MW from India. Due to the import of power by Bhutan during lean generation period, issuance of Regional Energy Accounts by the ERPC gets delayed till there is net export by Bhutan in the future months and the entire import of energy by Bhutan is squared off. NLDC has further submitted that as per DSM data for the FY 2018-19, the maximum deviation is to the tune of (-)900 MW to 600 MW in a time block, which may hamper grid security. Further, the Bihar Utilities submitted that while relaxing the provisions of the DSM Regulations, 2014 for Mangdechhu HEP, the important aspect of grid discipline should be considered by this Commission.

24. We observe that DSM mechanism was introduced with the objective of maintaining grid discipline as envisaged under the Grid Code. Through the DSM Regulations 2014, the Commission introduced the volume limit for buyer and seller depending on their schedule, and further tightened the range of frequency and increased the charges for deviation. The objective of the DSM Regulations, 2014 was to help maintain grid discipline and grid security as envisaged under the Grid Code. DSM was further strengthened by amendments to the DSM Regulations, 2014 to ensure inter alia the grid entities adhere to their schedule and deviation, if any, should be inadvertent only. The Commission feels that the deviation of the tune of -900 MW to 600 MW in a time block, is a matter of concern from grid security point of view. It remains a fact that there can be instances when the system frequency is within range and large unscheduled power flows on certain elements can result in grid failure.
25. We observe that PTC was designated as the nodal agency on 06.05.2019 for the transfer of power from Mangdechhu HEP and was subsequently authorized to sign PPA with the Government of Bhutan or its authorized representative and signing of PSA with the Indian beneficiaries of the project. PTC was well aware about the existence of the DSM Regulations, 2014 when it was designated as the nodal agency from India. Thus, it was incumbent upon PTC to apprise the contracting parties about the provisions and implication of the DSM Regulations, 2014 for the power exported from Mangdechhu HEP. It is also understood that subsequent to the request from Bhutan, the Government of India agreed only specific to Mangdechhu HEP that DSM should not be applicable which led to the signing of PPA between PTC India and Druke Green Power Corporation of Bhutan on 15.08.2019.
26. We note that the Indian beneficiaries of the project and the allocation of power amongst them were notified by the MoP through its letter dated 07.03.2019. PTC was obliged to sign PSA with these beneficiaries, i.e. North Bihar Power Distribution Company Ltd., South Bihar Power Distribution Company Ltd., West Bengal State Electricity Distribution Company Ltd., GRIDCO Ltd and Assam Power Distribution Company Ltd., subsequent to signing of the PPA with the authorized representative of Bhutan. Thus, subsequent to signing of the PPA on 15.08.2019, PTC should have discussed with the Indian Beneficiaries about the issues about DSM liability on them, and factored them in the PSA which was signed between PTC and the Indian beneficiaries. However, such treatment of the DSM

liabilities by the Indian beneficiaries does not find place in PSA which was signed on 30.08.2019.

27. The Indian beneficiaries of the Mangdechhu HEP have objected to the request for its exemption from the DSM Regulations, 2014. They have stated that keeping the entire power imported from the Mangdechhu HEP out of the ambit of the DSM Regulations, 2014 should not be permitted, as this will further cause serious problems in the operation of the Grid especially during off-peak period of the day. It has been further argued that if exemption from the DSM Regulations, 2014 is granted, it should be applicable for the Mangdechhu HEP as well as the Indian beneficiaries.
28. The Commission is sensitive to the issue of grid security and has expressed its intent through the Deviation Settlement Regulations issued from time to time that all entities connected with the grid should adhere to their schedule and maintain grid discipline so as to ensure that operation of the grid is not affected adversely, as envisaged in the Grid Code. Being an entity connected with the Indian grid, the scope of DSM Regulations, 2014, as amended from time to time, also extends to the Mangdechhu HEP. Thus, in accordance with the scope of DSM Regulations, Mangdechhu HEP is also expected to adhere to its schedule and ensure that operations of the grid are not affected adversely.
29. However, it remains a fact that the project is located in Bhutan and has been implemented under Inter-Governmental mode by the Royal Government of Bhutan and Government of India and that the Government of India has agreed to the request of Royal Government of Bhutan to exempt, only specific to 720 MW Mangdechhu HEP, from the provisions of DSM Regulations, 2014 for the power exported to India. Further, the NLDC has indicated that there are past practices of exemption from the DSM Regulations granted by this Commission, e.g. exemption given to the nuclear power plants and some HEPs of Bhutan. In such cases, the deviation is accounted for such plants and the DSM charges to this account are borne by their beneficiaries in proportion of their share. NLDC has also suggested that the DSM liabilities may be calculated as per the DSM Regulations for all Bhutan HEPs (ex-Bhutan), including those which are given exemption from DSM and the liabilities may be borne by the respective beneficiaries.
30. The units of the generating station achieved commercial operation in 2019. DSM Regulations, 2014 have been repealed by the DSM, Regulations 2022. In terms of



Regulations 13 (2) of the DSM Regulations 2022, anything done or any action taken under the repealed DSM Regulations 2014 shall be deemed to have been done or taken under the DSM Regulations, 2022. It is pertinent to note that both the DSM Regulations, 2014 and the DSM, Regulations, 2022 have provisions for the determination and recovery of DSM charges. Therefore, the liability of the Deviation Charges of Mangdechhu HEP arising under the DSM Regulations, 2014 are saved under the DSM, Regulations 2022.

31. In view of the special circumstances of the present case and with due consideration of the reference received from the Ministry of Power on the request of Royal Government of Bhutan, this Commission has decided that Mangdechhu HEP be exempted from the payment of Deviation Charges and the corresponding Deviation Charges shall be borne by the beneficiaries in India in proportion to their share in the generating station.

32. We observe that Regulation 12 of DSM Regulations, 2014 stipulates as under:

*“12. Power to Relax.*

*The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected by grant of relaxation, may relax any of the provisions of these regulations on its own motion or on an application made before it by an interested person.”*

We also observe that Regulation 11 of DSM Regulations, 2022 stipulates as under:

*“11. Power to Relax*

*The Commission may by general or special order, for reasons to be recorded in writing, and after giving an opportunity of hearing to the parties likely to be affected, may relax any of the provisions of these regulations on its own motion or on an application made before it by the affected party.”*

33. In exercise of the “Power to relax” under Regulation 12 of the DSM Regulations, 2014 and under Regulation 11 of DSM Regulations, 2022, this Commission hereby exempts the Mangdechhu HEP (specific to 720 MW) from payment of Deviation Charges under the DSM Regulations, 2014 and DSM Regulations, 2022, as amended from time to time. Further, the DSM liability of Mangdechhu HEP shall continue to be borne by the respective Indian beneficiaries in the ratio of their percentage share in the Mangdechhu HEP. The energy rate of the Mangdechhu HEP shall be considered as the deviation rate irrespective of grid frequency for settlement of DSM Account. The issue is decided accordingly.

34. The Commission further would like to observe that even though exemption is being granted to Mangdechhu HEP from payment of Deviation Charges, the Petitioner should take up the matter with Druke Green Power Corporation of Bhutan for making all efforts to minimise the deviation in the interest of grid security and reducing burden of DSM liability on the beneficiaries. Let an extract copy of this Order be sent to Ministry of Power so that the matter may be taken up with Government of Bhutan for persuading Druke Green Power Corporation of Bhutan to minimise the deviation in the interest of grid security.

35. The Petition no. 261/MP/2019 is disposed of in terms of the above.

Sd/-  
पी. के. सिंह  
(सदस्य)

Sd/-  
अरुण गोयल  
(सदस्य)

Sd/-  
आई. एस. झा  
(सदस्य)