

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Draft Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) (Fourth Amendment) Regulations, 2024.

No. L-1/250/2019/CERC

Explanatory Memorandum

1. Background

1.0 Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2020 was notified on 4.5.2020 and effective from 1.11.2020. The first, second, and third Amendment to these Regulations were notified on 07.02.2023, 20.10.2023, and 26.10.2023 and made effective from 01.10.2023, 01.11.2023 and 27.10.2023 respectively (amended Regulations are hereinafter collectively referred to as “2020 Sharing Regulations”).

1.1 The draft Fourth Amendment mainly covers the following:

- a) Ministry of Power, vide orders dated 29.05.2023 and 9.6.2023, specified provisions regarding the waiver of inter-State Transmission Charges to facilitate the execution of offshore wind power projects, Green Hydrogen/ Green Ammonia Plants, Hydro PSPs, and Hydro Projects.
- b) Calculation of transmission deviation for generators having dual connectivity to both inter-State and intra-State transmission systems,
- c) treatment of mismatch charges towards the terminal bay (s).
- d) Calculation of availability for the ISTS, including the projects under tariff based competitive bidding.

1.2 The explanations for each of the proposed amendments are covered in detail in the subsequent paragraphs.

2. Proposed amendment to Regulation 12: Transmission Deviation

2.1 NTPC vide letter dated 17.02.2023 while giving their comments on Draft CERC (Connectivity and General Network Access to the inter-State Transmission System)

(First Amendment) Regulations, 2023 submitted as under:

“It is submitted that methodology has been provided for the state only for the computation of the Transmission deviation charges having direct drawal from a Regional generating station which is connected to STU and ISTS or only STU system.

However, as the power flow in the ISTS and STU lines may vary based on the system conditions i.e. the flow in ISTS lines may be more than the GNA of the Generator hence the methodology for the computation of transmission deviation charges for Regional Generator which is connected to both STU and ISTS network (e.g. upcoming station of NTPC Talcher III) needs to be provided.

The suggestive clause is:

“In case of a Regional Generator which is connected to both ISTS and STU the transmission deviation in a block shall be injection over and above the GNA of the generator and access taken from the State network.”

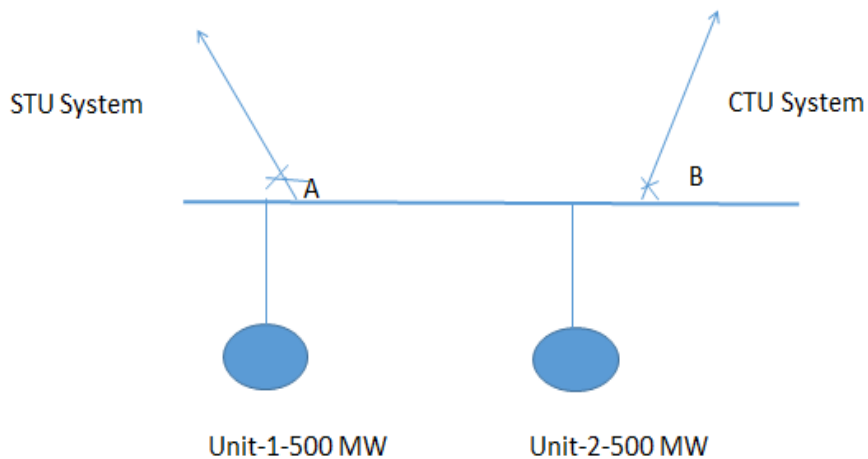
2.2 Sub-clause (a) of Clause (1) of Regulation 12 of Principal Regulations pertains to the calculation of transmission deviation charges for a generating station, including ESS and captive generating power plant connected to the inter-State transmission system. The formula for calculating transmission deviation for generators connected to both the CTU system and STU system is not specified explicitly.

2.3. We have perused the RTDA account issued by WRPC for the billing month of January 2024 for a sample generating station which is connected to both the CTU system and STU system. The RTDA provides as follows:

“Note:-

1) Since Total Injection of Dhariwal is available and CTU ISTS of Dhariwal is not separately available, therefore the deviation for Dhariwal is calculated as Total Injection of Dhariwal- (State GNA+ CTU GNA)”

2.4 A need is felt to clearly specify the formula for calculating transmission deviation for generators connected to both the CTU system and STU system. It is observed that actual flow through ISTS or intra-state transmission systems shall vary depending on load and generation scenario. The actual injection for such a generating station shall be the sum of injection at ISTS and intra-State points. Transmission deviation charges are proposed to be calculated on actual injection with respect to total access combined on STU and CTU system. An Illustration is provided below for clarity.



Suppose a generating station with 2 units of 500 MW each has obtained Access to the ISTS and STU system as follows:

- a. Access with ISTS: 400 MW
- b. Access with STU System: 500 MW

The actual injection is taken as the sum of injections at points “A” and “B”. If for a particular time block injection at point B is 550 MW and at point A is 400 MW, the Transmission Deviation for the said block shall be calculated as $\{950 - (400+500)\}$ MW = 50 MW.

Accordingly, it is proposed that for the generating station having dual connectivity to both ISTS and STU system, the transmission deviation shall be calculated as “net metered ex-bus injection, in a time block in excess of (GNA to the inter-State transmission system + Connectivity with STU system)”

However, it is clarified that while considering the above formula, the adequate capacity of the STU system (the connectivity with the STU system shall be the effective capacity that can be evacuated, satisfying the Transmission planning criteria) and ISTS should be commissioned to consider access to such access with such systems.

3. Proposed amendment to Regulation 13: Treatment of transmission charges and losses in specific cases:

3.1 Waiver for Offshore wind power projects, Green Hydrogen/Green Ammonia Plants and Hydro PSP plants:

- (a) MOP vide Order dated 29.05.2023 with regard to waiver of ISTS charges for Offshore wind power projects, Green Hydrogen/Green Ammonia Plants, and Hydro PSP, provides as follows:

“ORDER

Subject: Waiver of Inter-State Transmission Charges on transmission of the electricity generated from solar and wind sources of energy under Para 6.4 (6) of the Tariff Policy, 2016 - Addendum reg.

In continuation to the Ministry of Power Orders No. 23112/2016-R&R dated 23.11.2021, 30.11.2021, 01.12.2022 and 06.12.2022 on the waiver of Inter-State Transmission (ISTS) Charges on transmission of the electricity generated from solar and wind sources of energy, the following addendum is being issued.

2. Whereas it is deemed necessary to facilitate the execution of offshore wind energy initiatives, to promote the expansion of Green Hydrogen/Green Ammonia Projects, to promote development of Pump Storage Plants, and to encourage the off take of renewable energy from Energy Storage System Projects, it is duly resolved that:

- a. Offshore wind power projects commissioned on or before 31.12.2032 and established via Power Purchase Agreements (PPAs) or under merchant basis, shall be granted exemption from the payment of Inter-State Transmission (ISTS) Charges for a period of 25 years, starting from the date of commissioning of the project. Further, the offshore wind power projects commissioned after 31.12.2032 shall be levied ISTS charges as per the trajectory specified below:*

S. No.	Period of Commissioning of Offshore Wind Power Projects	Applicable ISTS Charges
1	01.01.2033 to 31.12.2023	25% of the applicable ISTS charges
2	01.01.2034 to 31.12.2034	50% of the applicable ISTS charges
3	01.01.2035 to 31.12.2035	75% of the applicable ISTS charges
4	From 01.01.2036	100% of the applicable ISTS charges

- b. Green Hydrogen/Green Ammonia Plants commissioned on or before 31.12.2030, and which utilize renewable energy from Solar, Wind, Large Hydro commissioned after 8th March, 2019, or Energy Storage Systems (ESS) (such as Pump Storage Plants or Battery Energy Storage Systems) or any hybrid combination of aforementioned technologies, for the production of Green Hydrogen or Green Ammonia, shall be granted exemption from the payment of ISTS Charges for a period of 25 years, starting from the date of commissioning of the project. Further, the Green Hydrogen/Green Ammonia Plants commissioned after 31.12.2030 shall be levied ISTS charges as per the trajectory specified below:*

S. No.	Period of Commissioning of Green Hydrogen/ Green Ammonia Plants	Applicable ISTS Charges
1	01.01.2031 to 31.12.2031	25% of the applicable ISTS charges

2	01.01.2032 to 31.12.2032	50% of the applicable ISTS charges
3	01.01.2033 to 31.12.2033	75% of the applicable ISTS charges
4	From 01.01.2034	100% of the applicable ISTS charges

c. Further in partial modification of clause 3.2 of the order dated 23.11.2021, the waiver of ISTS charges for Hydro PSP project has been made subject to 'award of construction work' instead of 'commissioning' mentioned earlier

d. Drawee entities, including Green Hydrogen/Green Ammonia Plants and Discoms, which contract energy (or capacity) from an ESS Project/ Scheme, shall be granted exemption from the payment of ISTS Charges if they draw a minimum of 51% of the annual energy contracted with or consumed from ESS as renewable energy.

e. The waiver shall be allowed only for ISTS charges but not for ISTS losses.

3. Further, if a Renewable Energy Project, which is eligible for ISTS waiver in terms of extant orders, is granted extension in Date of Commercial Operation (COD) by the competent authority, the project would not be deprived from applicable waiver of ISTS charges based on the original COD.

4. This order shall be applied prospectively i.e., from the date of issue of this order.

5. This issues with the approval of **Hon'ble Minister of Power and New and Renewable Energy.**"

(b) The waiver provisions for scheduling of power from Offshore wind power projects are proposed to be incorporated in the Principal Regulations, and the waiver provisions in respect of the Hydro PSP Project are proposed to be amended in line with the MoP order dated 29.05.2023 as quoted above. Accordingly, the draft amendment has been proposed in Regulation 13(2) of the Principal Regulations.

(c) With regard to the Green Hydrogen/ Green Ammonia Plant, the MoP Order dated 29.05.2023 provides for waiver of 100% of transmission charges to such plant, which is commissioned by 31.12.2030 and utilizes renewable energy from the solar, wind, and hydro sources irrespective of any reference to COD of such generation projects. However, in terms of the MoP order dated 23.11.2021, the waiver of 100% transmission charges is applicable only for electricity generated from solar, wind, and hydro sources commissioned up to 30.06.2025. Accordingly, there is some intermixing in the waiver provisions as per the MoP order dated 23.11.2021 and 29.05.2023, which needs to be clearly dealt with. The same has also been observed by the Commission in the minutes of the meeting held on 31st May 2024. The relevant extract of the minutes of the meeting of the Commission dated 31.05.2024 is as

under:

“5.0 Eligibility of ISTS charges waiver for Green Hydrogen/ Green Ammonia Plants commissioned on or before 31.12.2033

5.1 MoP’s order dated 29th May 2023 provides that the Green Hydrogen/Green Ammonia Plants commissioned on or before 31.12.2030, and which utilize renewable energy from Solar, Wind, Large Hydro commissioned after 8th March, 2019, or Energy Storage Systems (ESS) (such as Pump Storage Plants or Battery Energy Storage Systems) or any hybrid combination of aforementioned technologies, for the production of Green Hydrogen or Green Ammonia, shall be granted exemption from the payment of ISTS Charges for a period of 25 years, starting from the date of commissioning of the project. The Green Hydrogen/Green Ammonia Plants commissioned after 31.12.2030 shall be levied ISTS charges as per the trajectory specified below:

S. No.	Period of Commissioning of Green Hydrogen/ Green Ammonia Plants	Applicable ISTS Charges
1	01.01.2031 to 31.12.2031	25% of applicable ISTS charges
2	01.01.2032 to 31.12.2032	50% of applicable ISTS charges
3	01.01.2033 to 31.12.2033	75% of applicable ISTS charges
4	From 01.01.2034	100% of applicable ISTS charges

5.2 Discussions of the Commission

(i) MOP’s Order dated 29.5.2023 on green hydrogen /green ammonia plants provides 100% waiver to green hydrogen /green ammonia plants (as consumer), commissioned by 31.12.2030 (which utilize renewable energy from Solar, Wind, specified large hydro) and from 1.1.2031 and beyond as per specified trajectory.

(ii) MoP’s Order dated 23.11.2021, provides 100% waiver of inter-State transmission charges for electricity generated from the solar, wind, Hydro PSP and BESS projects commissioned up to 30.6.2025 and beyond 30.06.2025 as per the trajectory. This provision has already been incorporated in the 2020 Sharing Regulations vide the First Amendment.

(iii) A combined reading of MoP’s Orders dated 23.11.2021 and 29.05.2023 provide as follows:

a) Consumption by a green hydrogen /green ammonia plant commissioned by 31.10.2030 is eligible for 100% waiver of transmission charges for electricity if such consumption is from specified sources (irrespective of commissioning date of such sources). However, the electricity generated from solar generating station commissioned during the period July 2027- June 2028 is exempted for only 25% ISTS charges.

b) Similarly, a green hydrogen /green ammonia commissioned on 1.2.2031 is not eligible for 100% waiver ISTS charges as per Order dated 29.5.2023, whereas if it consumes power generated from a solar source that was commissioned before 30.6.2025, such green hydrogen plant becomes eligible for waiver for 100% charges for such consumption (under MoP’s Order dated 23.11.2021)
.....”

(d) Considering the MoP order dated 23.11.2021 and 29.05.2023 in the context of the waiver for green hydrogen/ green ammonia plants, it is proposed that the higher of

the possible waiver shall be considered for such green hydrogen/green ammonia plant. The following is proposed to be incorporated in the Principal Regulations under regulation 13(2) (f-ii):

*“As a drawee DIC, a Green Hydrogen or Green Ammonia Plant having drawl schedule from (i) REGS or RHGS based on wind (including off shore wind) or solar source, (ii) ESS which is meeting at least 51% of its annual electricity requirement for pumping of water or charging of battery with electricity generated from REGS or RHGS based on wind or solar source and (iii) hydro generating station, **shall be eligible to waiver** considering drawl schedule as per Table under sub-clause (f-iii) or as per sub-clauses(a) to (f-i) of Clause (2) of this Regulation, whichever is higher.”*

Illustrative examples have also been included in the proposed draft for clarity as follows:

“(i) A Green Hydrogen plant, which declares COD on 01.01.2032 (eligible for 50% waiver as per Table under sub-clause (f-iii)), is scheduling power from a REGS based on wind source which has declared commercial operation on 01.07.2025 (eligible for 75% waiver under sub-clause (f)). In this case, the drawl schedule from such REGS to such Green Hydrogen plant will be considered @ 75% under Annexure-III.

(ii) A Green Hydrogen plant, which declares COD on 01.01.2030, is scheduling power from a REGS based on a wind source, which has declared commercial 5 operation on 01.07.2027. In this case, the drawl schedule from such REGS to such Green Hydrogen plant will be considered @ 100% under Annexure-III.”

3.2 Waiver for Hydro Power plants:

(a) Clause 2(e) of Regulation 13 of the Principal Regulations provides as under:

“(e) Hydro generating station where (a) PPAs are signed on or after 1.12.2022 but on or before 30.06.2025 and (b) construction work is awarded on or before 30.06.2025 shall be considered for waiver of transmission charges under this Regulation, for a period of 18 years from the date of COD of the hydro generating station.”

(b) NSEFI, vide its letter dated 03.01.2024, requested clarification with respect to the waiver of ISTS charges for Hydro power plant as under:

“10. ISTS waiver of Hydro projects:

Request: We request Hon'ble Commission to issue clarification that if a hydro generating station commissioned in Dec. 20 and selling power through exchange till date, signs PPA with a trader on or before 30.06.2025, whether such hydro generating station will be eligible for waiver of transmission charges for use of ISTS under Regulation 13(2)(e) of the Sharing Regulations, 2020? Also, we need clarification that whether PPA mentioned in the said regulation refers to short, medium or long term PPA?”

(c) On perusal of the aforementioned letter of NSEFI, it is observed that there is a

need to include clarity in Regulation 13(2)(e) of the Principal Regulations. Accordingly, it is proposed to include words “ **on or after 1.12.2022 but** “ after the words “(b) construction work is awarded” in sub-clause (e) of Clause (2) of Regulation 13 of the Principal Regulations.

- (d) With regard to the clarifications sought by the NSEFI, it is clarified that for eligibility of the 100% waiver of transmission charges, both the conditions, i.e., signing of the PPA as well as an award of the construction work to be met after 01.12.2022 but on or before 30.06.2025. For example, a Hydro project wherein the construction works are awarded on 01.12.2020, but the PPA is signed on 30.06.2025, such hydropower plant shall not be eligible for a waiver of the transmission charges under this clause.

3.3 Extension of timelines for a waiver for the project with SCOD up to 30.06.2025:

- (b) The MOP Order dated 09.06.2023 provides as follows:

“ORDER

Subject: Waiver of Inter-State Transmission Charges on transmission of the electricity generated from solar and wind sources of energy under Para 6.4 (6) of the Tariff Policy, 2016 Addendum- regarding.

In continuation to the Ministry of Power Order Nos. 23/12/2016-R&R dated 23.11.2021, 30.11.2021, 01.12.2022, 06.12.2022 and order No. 12/07/2023-RCM dated 29.05.2023 on the waiver of Inter-State Transmission (ISTS) Charges on transmission of the electricity generated from solar and wind sources of energy, the para 3.1 (vii) of the Order dated 30.11.2021 shall be substituted as under:

“(vii) For any solar, wind and sources mentioned in para 3.1(i),(ii) and (iii) of the Order dated 23.11.2021, which is eligible for waiver of inter-state transmission charges and is having its scheduled date of commissioning on or before 30th June 2025 is granted extension of time from the commissioning by Ministry of New and Renewable Energy after careful consideration, on account of Force Majeure or for delay on the part of the transmission provider in providing the transmission even after having taken the requisite steps in time; or on account of delays on the part of any Government Agency, and the power plant is commissioned before the extended date; it will get benefit of waiver of inter-state transmission charges on the transmission of electricity generated by such power plant as if the said plant had been commissioned on or before 30th June 2025.

Provided that where a Renewable Energy generation capacity which is eligible for ISTS waiver in terms of the extant orders, is granted extension in COD by the competent authority, the commencement and the period of the LTA shall also get extended accordingly, and it will be deemed that the period of ISTS waiver is extended by the said period.

Provided also such extension in Date of Commissioning (CoD) of a project shall be

granted for a period of six months at a time and not more than 2 times.”

*2. This issues with the approval of the approval of the **Hon'ble Minister of Power and New and Renewable Energy.**”*

(c) The MoP order dated 09.06.2023 provides for the extension of timelines for waiver of inter-state transmission charges for REGS based on wind or solar sources, having its scheduled date of commissioning on or before 30th June 2025 and is granted an extension of time to achieve COD by the MNRE. It is observed that the renewable generation project may be implemented consequent to tariff based competitive bidding by the distribution licensee or REIA under which such generation project is bound by terms and conditions of PPA (issued under standard bidding guidelines of Gol, including that for extension of SCOD and COD. Accordingly, it is proposed that the extension of SCOD in such cases should be as per the provisions of the PPA. However, if PPA permits for extension, as per the MoP Order dated 9.6.2023, for the purpose of waiver, a maximum 2 extensions up to a period of 6 months, each time, shall only be considered.

(d) For other cases, an extension of SCOD for this purpose shall be adjudicated by the Central Commission for the purpose of waiver of transmission charges.

3.4 Amendment to Regulations 13(3), 13(6) and 13(7) of the Principal Regulations:

a) CTUIL vide its letter dated 17.02.2023, with regard to the sharing of the transmission charges of the terminal bay(s) suggested as under:

“(a) Generation projects granted connectivity under Connectivity Regulations 2009 may have a new date of Connectivity/GNA after transition under GNA Regulations. However, the bays under ISTS may be already awarded/commissioned for the subject generation project based on Connectivity sought date as per intimation of grant of Connectivity/Transmission Agreement. It is proposed that in case, COD of the Connectivity Bay at ISTS Pooling Station is achieved as per timeline of grant of Connectivity to the Generator under CERC Connectivity Regulations 2009 and generation is commissioned beyond above mentioned timeline, the liability for payment of transmission charges shall continue to be borne by generator for delayed period. Suitable provision needs to be incorporated in Sharing/GNA Regulations in this regard.

Further, as per Sharing Regulation, Transmission charges are payable by generation developer where COD of a generating station or unit(s) is delayed and the Associated Transmission System (ATS) has achieved COD, which is not earlier than its SCOD. However, as per the GNA Regulations, terminal bay at ISTS Pooling Station has been excluded from ATS. Accordingly, suitable provision regarding transmission charges payable by generation

developer, in case of COD of generation project is delayed and terminal bay at ISTS pooling station has achieved COD may be incorporated in the extant Sharing Regulations.

- b)** We observe that Regulation 13(3) provides for treatment of transmission charges in case the Connectivity Grantee/ Renewable Power Park Developer is delayed but its Associated Transmission System (ATS) has achieved commercial operation.
- c)** As per the GNA Regulations, the ATS shall not include the “Terminal bay,” and the “Terminal bay” is defined as under:

“Terminal bay” means the bay at ISTS sub-station where dedicated transmission lines of a Connectivity grantee terminate.

- d)** In terms of the GNA Regulations, the Connectivity Grantee/ Renewable Power Park Developer may construct the terminal bay(s) at its own cost or may seek Connectivity at terminal bay(s) constructed or being constructed by a transmission licensee. In case the terminal bay(s) is being constructed by a transmission licensee, as suggested by the CTUIL, suitable provision is required to be incorporated in the Regulations so as to cover the treatment of transmission charges towards such terminal bay(s) in case the terminal bay constructed by a transmission licensee has achieved COD and the connectivity grantee is delayed.
- e)** Accordingly, the second Proviso to Regulation 13 (3) is proposed to be substituted to incorporate the provisions for liability of payment of yearly transmission charges towards ‘Terminal bay’ in case of a mismatch between the COD of the Connectivity Grantee/ Renewable Power Park Developer and the COD of the ‘Terminal bay’ in the scope of a transmission licensee:

“Provided further that for cases of augmentation without ATS and where the Terminal Bay(s) at the ISTS sub-station, in the scope of the transmission licensee have achieved COD, which is not earlier than start date of Connectivity, and the COD of a Connectivity grantee or the Renewable Power Park Developer, as the case may be, has not been achieved, the Connectivity Grantee or the Renewable Power Park Developer, as the case may be, shall pay Yearly Transmission Charges for the Terminal Bay(s) corresponding to the Connectivity capacity which has not achieved COD:

Provided also that Yearly Transmission Charges in respect of Associated Transmission System and terminal bay(s) corresponding to the Connectivity capacity which have achieved COD shall be included for determination of transmission charges of DICs in accordance with Regulations 5 to 8 of these regulations.”

- f)** Consequential changes have also been made under Clauses (6) and (7) of Regulation 13 of the Principal Regulations.

3.5 New Provision regarding the Availability of Project under Regulation 13:

- a) The Transmission Service Agreement for the transmission system being executed as per the TBCB guidelines 2006 provides that the calculation of the availability for the elements of the transmission project shall be as per the Tariff Regulations, as applicable seven (7) days prior to the Bid deadline. The relevant extract of Article 8 of one such TSA is as under:

“8 AVAILABILITY OF THE PROJECT

8.1 Calculation of Availability of the Project:

Calculation of Availability for the Elements and for the Project, as the case may be, shall be as per Appendix-III of the Central Electricity Regulatory Commission (terms and Conditions of Tariff) Regulations, 2014, as applicable Seven (7) days prior to the Bid Deadline and as appended in Schedule 9.

8.2 Target Availability:

The Target Availability of the Project shall be ninety eight percent (98%).”

Further, Schedule 9 of the TSA provides as under:

“Schedule: 9

[Appendix of Regulations applicable seven (7) days prior to the Bid Deadline to be inserted by BPC]

Appendix III of Central Electricity Regulatory Commission (terms and Conditions of Tariff) Regulations, 2014

Appendix-III Procedure for Calculation of Transmission System Availability Factor for a Month

1. Transmission system availability factor for a calendar month (“TAFM”) shall be calculated by the respective transmission licensee, verified by the concerned RLDC and certified by the Member-Secretary, Regional Power Committee of the region concerned, separately for each AC and HVDC transmission system and grouped according to sharing of transmission charges. Transmission System Availability shall be calculated separately for each Regional Transmission System and inter-regional transmission system.

.....

2. The transmission elements under outage due to following reasons shall be deemed to be available:

- i. Shut down availed for maintenance or construction of elements of another transmission scheme. If the other transmission scheme belongs to the transmission licensee, the Member-Secretary, RPC may restrict the deemed availability period to that considered reasonable by him for the work involved.*

- ii. *Switching off of a transmission line to restrict over-voltage and manual tripping of switched reactors as per the directions of the concerned RLDC.*

.....”

As per above, the above-quoted TSA, signed as per TBCB guidelines 2006, hard codes the formula of availability as per the appended Schedule 9 of the TSA.

- b) Similarly, the Transmission Service Agreement for the transmission system being executed as per the TBCB guidelines 2021 provides a similar clause for the calculation of the availability of the elements of the transmission project. The relevant extract of Article 8 of one such TSA is as under:

“8 AVAILABILITY OF THE PROJECT

8.1 Calculation of Availability of the Project:

Calculation of Availability for the Elements and for the Project, as the case may be, shall be as per Appendix-II to Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019, as applicable on the Bid Deadline and as appended in Schedule 6 of this Agreement.

8.2 Target Availability:

Target Availability of each Element and the Project shall be 98%

Payment of monthly transmission charges based on actual availability will be calculated as per para 1.2 of Schedule 4 of this Agreement.

....”

Further, the relevant extract of Schedule 6 of the TSA is as under:

“Schedule: 6

Appendix II of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 as amended from time to time

Procedure for Calculation of Transmission System Availability Factor for a Month

1. Transmission system availability factor for nth calendar month (“TAFP_n”) shall be calculated by the respective transmission licensee, got verified by the concerned Regional Load Dispatch Centre (RLDC) and certified by the Member-Secretary, Regional Power Committee of the region concerned, separately for each AC and HVDC transmission system and grouped according to sharing of transmission charges. In the case of AC system, transmission System Availability shall be calculated separately for each Regional Transmission System and inter-regional transmission system. In the case of the HVDC system, transmission System Availability shall be calculated on consolidate basis for all inter-state HVDC systems.

.....

5. The transmission elements under outage due to following reasons shall be deemed to be available:

i. Shut down availed for maintenance of another transmission scheme or construction of new element or renovation/upgradation/additional capitalization in an existing system approved by the Commission. If the other transmission scheme belongs to the transmission licensee, the Member Secretary, RPC may restrict the deemed availability period to that considered reasonable by him for the work involved. In case of a dispute regarding deemed availability, the matter may be referred to the Chairperson, CEA, within 30 days.

ii. Switching off of a transmission line to restrict over-voltage and manual tripping of switched reactors as per the directions of the concerned RLDC.”

As per above, the TSA signed as per TBCB guidelines 2021 covers the formula of availability as per the appended Schedule 9 of the TSA.

- c) MoP vide OM dated 03.08.2022 specifically requested the Commission to incorporate certain provisions in the Tariff Regulations to enable calculation of deemed Availability for RTM and TBCB projects. MoP OM dated 03.08.2022 is quoted as follows:

“OFFICE MEMORANDUM

Subject: Policy on shifting of transmission lines by transmission licensee for other infrastructure projects — regarding

The undersigned is directed to say that a number of references have been received from other infrastructure departments like National Highways Authority of India Ltd (NHAI) for waiver of transmission charges for the shutdown period availed by transmission licensee for shifting of their transmission lines.

2. *The matter has been considered in the Ministry. It has been noted that generally customers of transmission lines are not affected by shutdown of a particular transmission line during the period of shifting of utilities, because of redundancy in the power system. Accordingly, it has been decided that:*

(i) *RPC Secretariat shall provide deemed availability certificate for the shutdown period availed by transmission licensees (both RTM and TBCB) for shifting of their Inter State Transmission System (ISTS) lines for all national importance infrastructure projects of NHAI, Railways, BRO etc., provided that transmission customers are not affected by the shutdown of the line.*

(ii) *All such applications for deemed availability shall be considered irrespective of date of application. However, deemed availability for past shifting of lines, where the diversion work has already been completed, shall not be considered.*

(iii) *A consolidated Standard Operating Procedure for shifting of Transmission line by*

transmission licensees for other infrastructure projects shall be prepared by CEA and submitted to the Ministry. The same will be put up for approval of the Competent Authority in the Ministry.

(iv) The CERC shall make necessary changes quickly in the CERC (Terms and Conditions of Tariff) Regulations to enable declaration of deemed availability certificate by Regional Power Committees for shifting of transmission lines for other infrastructure projects, provided that transmission customers are not affected by the shutdown of the line.

3. This issues with approval of the Hon'ble Minister of Power and New & Renewable Energy.”

As per above, deemed availability for a transmission system is proposed to be considered for the shutdown period availed by transmission licensees (both RTM and TBCB) for shifting their Inter State Transmission System (ISTS) lines for all national importance infrastructure projects of NHAI, Railways, BRO, etc.

- d) Keeping in view the aforementioned policy, a new provision with regard to the deemed availability of the transmission system was incorporated vide Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (Third Amendment) Regulations, 2023, notified on 15.12.2023 as follows:

“(iii) Shut down of a transmission line due to shifting or modification of such transmission line or otherwise because of the Project(s) of NHAI, Railways, and Border Road Organisation. Member Secretary, RPC may restrict the deemed availability period to that considered reasonable by him for the work involved;

Provided that DICs are not affected by the shutdown of such a transmission Line;”

- e) Similar dispensations have been included in the CERC (Terms and conditions of Tariff) Regulations 2024 (applicable for the 2024-2029 control period) quoted as under:

“Appendix-IV

Procedure for Calculation of Transmission System Availability Factor for a Month

1. Transmission system availability factor for nth calendar month (“TAF_{Pn}”) shall be calculated by the respective transmission licensee, verified by the concerned Regional Load Dispatch Centre (RLDC) and certified by the Member-Secretary, Regional Power Committee of the region concerned, separately for each AC and HVDC transmission system and grouped according to sharing of transmission charges. In the case of the AC system, transmission System Availability shall be calculated separately for each Regional

Transmission System and inter-regional transmission system. In the case of the HVDC system, transmission System Availability shall be calculated on a consolidated basis for all inter-state HVDC systems.

4. The transmission elements under outage due to the following reasons shall be deemed to be available:

i. Shut down availed for maintenance of another transmission scheme or construction of new element or renovation/upgradation/additional capitalization in an existing system approved by the Commission. If the other transmission scheme belongs to the transmission licensee, the Member Secretary, RPC may restrict the deemed availability period to that considered reasonable by him for the work involved. In case of a dispute regarding deemed availability, the matter may be referred to the Chairperson, CEA, within 30 days.

ii. Switching off of a transmission line to restrict over-voltage and manual tripping of switched reactors as per the directions of the concerned RLDC.

iii. Shut down of a transmission line due to the Project(s) of NHAI, Railways and Border Road Organization, including for shifting or modification of such transmission line or any other infrastructure project approved by Ministry of Power. Member Secretary, RPC may restrict the deemed availability period to that considered reasonable by him for the work involved; Provided that apart from the deemed availability, any other costs involved in the process of such shutdown of transmission line shall not be borne by the DICs.

Provided that such deemed availability shall be considered only for the period for which DICs are not affected by the shutdown of such transmission line.”

The aforementioned provisions with regard to the Availability and deemed availability of the transmission system shall not be applicable for the TBCB projects since Tariff Regulations are, as such, not applicable to TBCB projects. Their availability would continue to be determined as per the TSA, which does not contain clauses as required as per MOP Policy dated 3.8.2022.

- f) It is observed that the recovery of transmission charges for both TBCB and RTM projects is carried out under the Sharing Regulations. Accordingly, it is proposed that the Availability for such systems should also be covered as per the Sharing Regulations to enable a uniform methodology to calculate Availability, including deemed availability for the ISTS.

- g) Accordingly, it is proposed that the Availability of the transmission system shall be as per the provisions of the prevailing Tariff regulations. As far as Target availability figures are concerned, it shall be in terms of the respective TSA. An illustration is given below:

Illustration:

1. The calculation of the availability of the transmission system for the month of January 2025 shall be done according to the provisions of Tariff Regulation 2024 (applicable for the 2024-2029 control period).
2. The calculation of the availability of the transmission system for the month of January 2030 shall be done according to the provisions of Tariff Regulation 2024 (applicable for the 2029-2034 control period).
