



DRAFT Central Electricity Regulatory Commission  
(Sharing of Inter-State Transmission Charges and Losses)  
(Third Amendment) Regulations, 2023

COMMENTS OF TANGEDCO DURING  
PUBLIC HEARING ON 29.08.2023

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## SHARING OF TRANSMISSION CHARGES OF HVDC SYSTEMS – APPROACHES AND PRINCIPLES FOLLOWED BY CERC

- i. **In the second amendment to the Sharing Regulations 2010, treatment of HVDC system was dealt with as below:**
  - *Step 4 under sub-para 2 of Para 2.7 of Annexure : “Provided that after the entire country is synchronously connected, the cost of all the HVDC systems shall be borne by all the DICs in the country by scaling up the YTC calculated without including the HVDC costs.”*
- ii. **Third Amendment to Sharing regulations 2010 notified on 1st April, 2015**
  - *45.17 For any new HVDC line, the Commission shall decide the methodology through an order. However, the above principle of sharing of transmission charges of HVDC lines may be reviewed based on the national transmission planning, if certain HVDC systems are planned to cater to multiple needs i.e. evacuation or reliability or Renewable integration or change in the benefits derived by the stakeholders.*

# SHARING OF TRANSMISSION CHARGES OF HVDC SYSTEMS – APPROACHES AND PRINCIPLES FOLLOWED BY CERC

## (iii) Treatment of Mundra-Mohindergarh HVDC Dedicated Transmission System Built Under Sec 63

Hon'ble CERC order dated 08.06.2013 in petition No.44/TL/2012 seeking grant of transmission license,

*“56. **The dedicated transmission lines constructed by the petitioner are interregional in nature. These lines cannot be left un-regulated. Therefore, the Commission feels it imperative to step in to regulate these transmission lines so as to ensure compliance of the regulatory framework in the overall interest of the grid.***

*59. The respondents have urged that only the beneficiaries of Mundra TPS should be made to bear the transmission charges after grant of licence. We are not inclined to accept the plea. The transmission charges for the regional transmission network shall be shared by all concerned in accordance with the Commission's Regulations in vogue at the relevant time.*

*Under Third amendment to SR 2010, the part capacity of this asset was put under national pool to be shared by all DICs*

## (iv) Treatment of Biswanath Chariali- Agra HVDC System – CERC Order in P No. 67/TT/2015

*“27. **The Commission agrees with POSOCO that the usefulness and importance of the subject transmission assets should not be seen in the narrow prism of its immediate utilization during the initial years but needs to be assessed over the entire life cycle of the assets which will carry the hydro power from the huge potential in Northeast for the benefit by the entire country. .... Thus, this vital link is a flagship endeavor of the Indian Power Sector which will benefit the entire country.***

*28. **Since the transmission assets are of strategic and national importance whose benefits shall be derived by the entire country, we are of the view that the charges for the HVDC assets covered in the present petition should be shared by all the regions of the Country.***

# Recommendations of POSOCO, CTUIL & SRPC for Treatment of HVDC Systems in Bakshi Committee Report

## POSOCO's views

- ✓ *HVDC assets are for benefit of the country as a whole and attributing usage to particular beneficiaries may not be appropriate.*
- ✓ *it is suggested that charges of HVDC lines may be socialized amongst all DICs.*
- ✓ *Considering the upcoming HVDCs, Raigarh-Pugalur and Pugalur- Thrissur which have bidirectional features (required under high RE scenario when substantial exports are expected from Southern Region), the Commission may consider socializing the same.*

## CTUIL's views

- ✓ *HVDC assets provide benefit to the country as a whole and attributing its usage to select beneficiaries may not be appropriate*

## SRPC's views

- ✓ *All HVDC systems are likely to be used to transfer bulk power in a perspective plan based on RE, Hydro and other energy resources potential. Some of the links may be used in both the directions based on season and sometimes on intra-day basis also. These links are conceived with national perspective in mind and could be shared by all the DICs of the country. 100% transmission charges of all HVDC system (including back-to-back) except 1,495 MW capacity of Mundra - Mohindergarh HVDC transmission system should be under NC-HVDC. Further 70% of transmission charges for 1,005 MW of Mundra Mohindergarh HVDC transmission system should be shared under Regional Component*
- ✓ *Vide letter dated 30.07.2019 & 07.01.2021 requested the Hon'ble Commission to consider the case of Raigarh-Pugalur-Trissur HVDC similar to Biswanath Chariali-Agra HVDC system and include the tariff under National component*

## SHARING OF TRANSMISSION CHARGES OF HVDC SYSTEMS – PROVISIONS UNDER THE SHARING REGULATIONS 2020

Regulations:

### **5. Components and sharing of National Component (NC)**

- (1) National Component shall be sum of the following components: (a) National Component-Renewable Energy (NC-RE); and (b) National Component-HVDC (NC-HVDC).*
- (2) National Component-Renewable Energy shall comprise of the Yearly Transmission Charges for transmission systems developed for renewable energy projects as identified by the Central Transmission Utility.*
- (3) National Component-HVDC shall comprise of the following:**
  - (a) 100% of Yearly Transmission Charges for “back-to-back HVDC” transmission system;**
  - (b) 100% of Yearly Transmission Charges for Biswanath-Chariali/ Alipurdwar to Agra HVDC transmission system;**
  - (c) Yearly Transmission Charges of Mundra–Mohindergarh 2500 MW HVDC transmission system corresponding to 1005 MW capacity: 8 Provided that Yearly Transmission Charges corresponding to 1495 MW for the said transmission system shall be borne by M/s Adani Power (Mundra) Limited or its successor company; and**
  - (d) 30% of Yearly Transmission Charges for all other HVDC transmission systems except those covered under sub-clauses (a), (b) and (c) of this clause of this Regulation.**
- (4) The Yearly Transmission Charges for the National Component shall be shared by all drawee DICs and injecting DICs with untied LTA in proportion to their quantum of Long Term Access plus Medium Term Open Access and untied LTA respectively.*

### **6. Components and sharing of Regional Component (RC)**

- (1) Regional Component shall be sum of the following components:*
  - (a) Regional Component of HVDC (RC-HVDC) comprising of 70% of Yearly Transmission Charges of HVDC transmission systems planned to supply power to the concerned region, except HVDC transmission systems covered under sub clauses (a),(b) and (c) of Clause (3) of Regulation 5; and .....*
- (2) Yearly Transmission Charges covered under sub-clause (a) of Clause (1) of this Regulation shall be shared by drawee DICs of the receiving region and injecting DICs with untied LTA in the receiving region, in proportion to their quantum of Long Term Access plus Medium Term Open Access and untied LTA, respectively.*
- (3) Yearly Transmission Charges covered under sub-clause (b) of Clause (1) of this Regulation shall be shared by drawee DICs of the region and injecting DICs (with untied LTA) of the same region, in proportion to their quantum of Long Term Access plus Medium Term Open Access and untied LTA, respectively.*

# SHARING OF TRANSMISSION CHARGES OF HVDC SYSTEMS –

Provisions under the Sharing Regulations 2020 – SOR to Principle Regulations

## 12.3. Analysis and Decision

- 12.3.1. *Sharing mechanism of HVDC transmission system by the beneficiary regions is based on the basic purpose of HVDC system i.e. bulk power transfer to receiving States and providing flexibility and stability to overall grid. Detailed explanation of the basis of sharing was provided in the Explanatory Memorandum to the Draft 2019 Sharing Regulations.*
- 12.3.2. *Allocation of transmission charges of HVDC system on **usage basis is not feasible** since marginal participation method cannot be used to determine the usage of HVDC. This was deliberated in the Statement of Reasons dated 26.10.2015, while issuing third amendment to the 2010 Sharing regulations.*
- 12.3.3. *HVDC system covered under Regional Component have been planned to cater to requirement of drawl by a particular region. **With developments in sector and change in load-generation mix, if need arises to consider the sharing based on bidirectional flow of power, the same shall be dealt with by the Commission at the appropriate time.***

## Sharing of transmission charges of HVDC systems – Recommendations of ministry of power

- Letter dated 30.05.2022 addressed to CERC from MoP
  - *“Accordingly, CERC is requested to consider transmission charges of all HVDC inter regional links under National component(100% transmission charges to be borne by all Designated Inter State transmission customers), provided that*
    - i) There is certain quantum to bi-directional power flow through the concerned HVDC inter-regional link*
    - ii) The quantum of bi-directional power flow [for considering 100% of transmission charges of the link under national component] may be decided by CERC in consultation with stake holders including POSOCO, CEA and CTU.”*
- Hon’ble Minister of Power, Union of India letter dated 20.02.2023 to the Hon’ble Minister for Electricity, Prohibition & Excise, Government of Tamil Nadu:
  - “MoP has already directed the CERC to consider declaration of 800 KV Raigarh-Pugalur-Thrissur HVDC link as asset of National and strategic importance based on the case study furnished by Grid-India.***
  - I hope this clarifies the position”*



## Sharing of transmission charges of HVDC systems – Hon'ble commission's orders in Raigarh-Pugalur –Trissur HVDC systems

- *“131. We are of the view that the Commission is not the appropriate forum for declaring any transmission asset to be of national and strategic importance. It is further observed that transmission system being of national importance and a transmission system considered as a National Component are two different aspects. Therefore, we are not inclined to approve the 100% yearly transmission charges of Raigarh-Pugalur-Trissur HVDC system under National Component”*
- *132. KSEB, TANGEDCO, BESCO, TSSPDCL and TSNPDCL have contended that the transmission asset will serve the purpose of evacuation of RE power from Southern Region to the rest of the country. We are of the view that if need be to consider the sharing based on bi-directional flow of Raigarh-Pugalur-Thrissur HVDC transmission system due to change in load-generation mix, the same shall be dealt with by the Commission at the appropriate stage.*

Order of Hon'ble High Court of Madras dated 28.06.2023 in writ petitions against CERC tariff orders in P.Nos. 172/TT/2021, 173/TT/2021 & 242/TT/2021 pertaining to Raigarh-Pugalur–Trissur HVDC system

- *“In view of the fair stand taken by the learned counsel on either side and also considering the stand expressed by the 4<sup>th</sup> respondent, this court without interfering with the order passed by the 2<sup>nd</sup> respondent, permits the petitioner to file appropriate appeal before APTEL on or before 07.07.2023 and subject to the action taken by the petitioner and orders if any passed by APTEL on the appeal filed by TANGEDCO and also the petitioner, the respondents are at liberty to proceed in the matter in accordance with law, if the petitioner has not obtained any restraint order from APTEL on or before 17.07.2023. **Till such time, the order passed by the 2<sup>nd</sup> respondent shall be kept in abeyance.**”*

Hon'ble APTEL order dated 18.07.2023 in Appeal No.433 of 2022 against CERC tariff order in P.Nos. 685/TT/2020 pertaining to Raigarh-Pugalur–Trissur HVDC system:

- 20 We find is absolutely unjust and unreasonable on the part of the Central Commission of ignoring the recommendations of the CTU, SRLDC and SRPC in addition to the submissions made by the Southern Region constituents and even not consulting the CEA, the technical Apex Statutory Technical Organisation, further, passing the order without considering the advice of the Ministry of Power.
24. We decline to accept the submission of the POWERGRID as the Central Commission ought to have considered the same and its failure to acknowledge the letter of the Government of India on its own cannot be appreciated.
25. It was also submitted by the CTU that during the consultation process concerning the draft Sharing Regulations, 2020, the Central Commission clarified that HVDC systems planned to cater to the requirement of drawl by a particular region were covered under Regional Component and, in case of change in load-generation mix, if need arose to consider the sharing based on bi-directional flow of power, the same could be dealt with by the Commission at an appropriate time, therefore, the issue of considering the HVDC link i.e. Raigarh-Pugalur-Trissur HVDC system in the National Component was discussed at the time of framing of the Sharing Regulations, 2020 and the Central Commission decided to consider the same at an appropriate stage to include it in the National Component based on bi-directional flow of power, the said position has been reiterated by the Central Commission in the Order impugned.
28. We find it totally inconsistent approach adopted in the present case, its decision to defer the consideration of the instant HVDC link under the components of National Importance to a later stage based on change in load generation and bi-directional flow of power is unreasonable as the Dehgam–Mundra– Mohindergarh–Bhiwani link, till date, has operated with only unidirectional flow, as submitted by the Appellant and also that the  $\pm 800$  kV Biswanath Chariali-Agra HVDC link is under utilized and the SR is not benefitted by either of the two.

Hon'ble APTEL order **dated 18.07.2023** in Appeal No.433 of 2022 against CERC tariff order in P.Nos. 685/TT/2020 pertaining to Raigarh-Pugalur–Trissur HVDC system:

29. Further, the Central Commission decided the issue after considering the comments of the CEA, POSOCO & CTU in earlier cases, however, passed the Impugned Order without considering these regulations in the instant case.
30. We appreciate the views of the CTU and in the light of the above mentioned Orders, Statement of Reasons to the Sharing Regulations, 2020, and the fact that Raigarh-Pugalur HVDC transmission link will also be utilized for export of power outside the Southern Region(bi-directional) (on account of surplus scenario and optimistic RE capacity addition projections), the HVDC transmission link is likely to be utilized for both import and export of power under various operating conditions and may be considered as National Component under the Sharing Regulations, 2020.
31. It cannot be disputed that Tamil Nadu and other Southern Regional States are RE rich States and the resources will be shared for the benefit of the entire country, it was also submitted by the Appellant that the loan for the instant asset was sought from the Asian Development Bank citing it as a Renewable Energy Corridor.
32. Therefore, the submissions of the Appellant under these circumstances find merit, for considering the Raigarh — Pugalur HVDC transmission system as assets of strategic and national importance in line with the other HVDC systems so that the charges are shared on all India basis.
33. We, therefore, find it appropriate to set aside the Impugned Order and direct the Central Commission to pass fresh order in the light of the observations recorded in the foregoing paragraphs and also duly consulting the statutory authorities i.e. CEA, CTU and POSOCO in the matter and also considering the aforementioned MoP's letter dated 30.05.2022.



Hon'ble Supreme Court of India order dated 18.08.2023 in Civil Appeal No.4959 of 2023 filed by M/s.PGCIL challenging the order of Hon'ble APTEL

1. We find no reason to entertain the appeal at this stage against the order of remand by the Appellate Tribunal for Electricity.
- 2 The Central Electricity Regulatory Commission (CERC) shall dispose of the proceedings on remand on or before 31 October 2023.
- 3 The Civil Appeal is accordingly dismissed.

# Draft CERC (Sharing of Inter-State Transmission Charges and Losses) (Third Amendment) Regulations 2023

## **“5. Components and sharing of National Component (NC)**

*National Component shall be sum of the following components: (a) National Component-Renewable Energy (NC-RE); and (b) National Component-HVDC (NC-HVDC).*

*(2) National Component-Renewable Energy shall comprise of the Yearly Transmission Charges for transmission systems developed for renewable energy projects as identified by the Central Transmission Utility.*

*(3) National Component-HVDC shall comprise of the following:*

*(a) 100% of Yearly Transmission Charges for “back-to-back HVDC” transmission system;*

*(b) 100% of Yearly Transmission Charges for Biswanath-Chariali/ Alipurdwar to Agra HVDC transmission system;*

*(c) Yearly Transmission Charges of Mundra–Mohindergarh 2500 MW HVDC transmission system corresponding to 1005 MW capacity: Provided that Yearly Transmission Charges corresponding to 1495 MW for the said transmission system shall be borne by M/s Adani Power (Mundra) Limited or its successor company; and*

*(d) 30% of Yearly Transmission Charges for all other HVDC transmission systems except those covered under sub-clauses (a), (b) and (c) of this clause of this Regulation.*

- Following proviso shall be inserted in sub-clause (d) of Clause (3) of Regulation 5 of the Principal Regulations:*
- “Provided that % of Yearly Transmission Charges shall be 30% or more in accordance with subclause (a) of clause (1) of Regulation 6 of these regulations.”*

## Draft CERC (Sharing of Inter-State Transmission Charges and Losses) (Third Amendment) Regulations, 2023

- *The following provision is proposed to be inserted under sub-clause of Clause (1) of Regulation 6 of the Principal regulations:*

*“Provided that where an interregional HVDC transmission system planned to supply power to a particular region is operated to carry power in reverse direction due to system requirements, the percentage Yearly Transmission Charges of such transmission system to be considered in the regional component and the National component shall be calculated as follows:*

HVDCr (in %) =

*$\frac{\sum \text{Maximum power flow in reverse direction (in MW) in any timeblock on } k\text{th day} \times 100}{\text{Capacity of HVDC transmission system in forward direction (MW)} \times \text{number of days in a month}}$*

*Capacity of HVDC transmission system in forward direction (MW) X number of days in a month*

Where k, is a day of a month with total ‘n’ days

where HVDCr >30%, the Yearly Transmission charges corresponding to HVDCr shall be considered in the National component and the balance in the regional component.

where HVDCr is < 30%, 30% of Yearly Transmission Charges shall be considered in the National component and 70% in the Regional component.”

## Legal validity of the proposed third amendment to Sharing Regulations 2020

- The assets of RPT were ready for commissioning when the Sharing Regulation 2010 was in force and the major assets (P685/TT/2020) were declared under commercial operation. Hence, as per the provisions under the SR2010 and the SOR, the RPT should have been declared it as National asset and billed under National pool.
- However, instead of applying the relevant amended Regulation, the Hon'ble Commission applied inapplicable provision of the SR 2010 for sharing of charges of RPT HVDC system in contrary to its own law.
- Hon'ble APTEL set aside the order of CERC vide its order dated 18.7.2023 and the same has been upheld by Hon'ble Supreme Court vide order dated 18.08.2023.
- The draft amendment dated 12.06.2023 notified prior to the order of Hon'ble Tribunal and Hon'ble Supreme Court with an intent to keep the RPT under Regional component and share a meagre portion of charges based on power flow has become infructuous.
- Any amendment against the direction of Hon'ble Tribunal and Hon'ble Supreme Court is contrary to the law



# Comments and views of TANGEDCO

- As per CERC, allocation of transmission charges of HVDC system on usage basis is not feasible.
- Other Bipolar HVDC system have been justified with benefit to the entire country, stability and reliability provided by the HVDC - same not extended for RPT.
- TANGEDCO alone has paid Rs 800 Crore (Approx) so far due to BCA and MM corridors.
- Hon'ble Commission has not considered the recommendation of the Ministry of power in the true spirit that the RPT HVDC system is benefiting the entire nation and is a strong inter regional tie line facilitating promotion of RE at the cost of SR beneficiaries.
- The sample working based on the proposed methodology reveals that there is absolutely nothing beneficial to the SR States. The sample calculation is enclosed as Annexure
- The Hon'ble Commission has not clarified why the usage based methodology has been diluted and uniform charges methodology has been introduced in the case of AC systems(contributing major part of YTC) and a specific usage based methodology is proposed of this specific HVDC system which is benefitting the entire nation.
- Third amendment is intended to provide a sharing methodology specific to RPT which is against the Orders of Hon'ble APTEL and Supreme Court and not sustainable in law.
- 3rd Amendment is specifically proposed for Raigarh-Pugalur – Trissur HVDC System against TANGEDCO's contention to declare it as assets of national importance and to share the transmission charges under national component.
- Mundra-Mohindergarh HVDC dedicated transmission system and Biswanath Chariali- Agra HVDC System built for evacuation of power from Hydro Power Plants from NER to NR have not been brought in to the ambit of proposed 3<sup>rd</sup> amendment.
- TANGEDCO has filed a writ petition WP. No. 26159 /2023 against the draft third amendment SR 2023

# Conclusion:

- ✓ Hence, we request the Hon'ble Commission to withdraw the notification of the draft Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) (Third Amendment) Regulations, 2023 immediately in the interest of larger public and render justice.



Thank you