# KERALA STATE ELECTRICITY BOARD LIMITED

*Incorporated under the Companies Act, 1956*
*Corporate identity Number: U40100KL201 ISGC0272424*
*Regd Office: VydyuthiBhavanam, Pattom, Thiruvananthapuram – 695004*
***Office of the Deputy Chief Engineer, Tariff and Regulatory Affairs Cell***
IX Floor, Phone (O) +91 471 2514617, 2514317, 2514650
E-mail: trac@kseb.in, web: www.kseb.in


KSEB/TRAC/CG/Draft Regulations/CERC Regulations/2019-20/625 28 -1-2020

***To***
***The Bench Officer,***
***Central Electricity Regulatory Commission,***
***Chanderlok Building, Janpath Marg,***
***New Delhi.***

Sir,

Sub: Draft Central Electricity Regulatory Commission(Sharing of Inter-State Transmission Charges and Losses) Regulations, 2019– Additional submission –reg:

Ref: 1. Notification No.L-1/250/2019/CERC Dated: 31st October 2019 of CERC.
2. Initial submission of KSEBL on 31-12-2019

Kind attention of the Hon'ble Commission is invited to the draft Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2019. KSEBL has filed its initial comments on the draft regulation on 31-12-2019. Hon'ble Commission had conducted an interactive workshop on the draft regulation on 6-1-2020.Hon'ble commission was kind enough to allow further time to file additional submissions based on insights gained during the workshop. Further, during the deliberations, KSEBL sought additional details regarding ISTS lines that are under utilized presently, level of utilization of major ISTS Systems, impact of each such systems on various DICs, specific data on DICs whose incorrect projections on LTA, demand etc that has lead to under utilization in each such cases etc for a proper appraisal of the proposed regulation. Even though it was agreed to share data, the same is not yet made available. It is respectfully submitted that all necessary and sufficient details may kindly be shared to all stakeholders and opportunity to submit response based on such complete information be provided. Presently, KSEBL is constrained to file this additional submission based on the limited information gained during the workshop and by relying on data compiled from CTU website relating to LTA, relinquishment, connectivity etc and on RTA data used for ISTS billing purpose etc., in view of scheduling of hearing by this Hon'ble Commission on the draft regulations. The following additional submission may kindly be taken together for consideration along with the initial submission made on 31-12-2019.

1. The existing PoC mechanism for sharing of transmission charges is a scientifically derived mechanism in line with the mandate under EA, 2003 and Tariff Policy.

   a) As per Section 61 of the EA,2003, the tariff determined by Commission shall be based on the following principles:

      - The factors which would encourage optimum investments.
      - Safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner.

   b) Tariff Policy stipulates that transmission charges should be sensitive to distance, direction and quantum of flow.

2. The efficacy of the existing PoC mechanism has been examined and acknowledged by the taskforce formed for reviewing the framework of Point of Connection charges and concluded that POC has served its purpose as enshrined in the mandate under EA, 2003 and Tariff Policy namely sensitive to distance, direction and quantum of flow. Further the mechanism has enabled the power market and has helped in reducing congestion by improvement in investment in the sector. The taskforce further observed that the current mechanism has not inhibited the development of transmission system and has rather led to development of transmission system which grew @20% CAGR. And the congestion is almost nil with single market price across India for most of the time. Further, PoC mechanism is a scientifically based mechanism.

3. Being so, the change in methodology of sharing of Transmission charges now proposed by Hon'ble Commission is only due to the request of some stakeholders for a change as their transmission charges are high under the existing PoC mechanism. The Committee for studying the efficacy of PoC mechanism and also Hon'ble CERC have concluded that the following factors resulted in the increase of PoC charges of some DICs.

   1. Non equitable sharing of National Assets under PoC mechanism
   2. Non equitable sharing of cost of transmission system constructed for evacuation of large Renewable Energy projects in RE rich states.
   3. Transmission system created as per LTA applications are grossly underutilized and States having these transmission assets are loaded with higher PoC charges.
   4. PoC charges computed based on projected load flow (which significantly differ from actual scenario) leads to skewing of transmission charges

4. KSEBL acknowledges the above issues presently faced in the Country. On the solutions and proposals evolved by Hon'ble Commission for addressing the above issues, following comments are submitted.

a. **Determining sharing of transmission charges on post facto basis instead of projection.**

- This is acceptable as it will avoid gaming by DICs and skewing of PoC charges due to wrong LGB projection.

b. **Treating few HVDC lines as National Asset**

In the matter of treating HVDC lines as National Asset, following are additionally submitted for kind consideration. As per the proposed Regulations, only following HVDC lines are considered as National assets.

(a) 100% transmission charges for "Back to Back HVDC" Transmission System;
(b) 100% transmission charges for Biswanath Chariali/Alipurdwar – Agra HVDC Transmission System;
(c) Proportionate transmission charges of Mundra–Mohindergarh HVDC Transmission System corresponding to 1005 MW capacity; and
(d) 30% of transmission charge for all other HVDC Transmission Systems

It is submitted that Raigarh-Pugalur-Madakkathara HVDC system is being created in view of long term necessity for surplus RE evacuation from SR to the rest of the Nation and also for strengthening of the transmission system connecting SR with NEW grid in view of huge surplus thermal generation capacity created in Chattisgarh. The ±800 kV Raigar –Pugalur HVDC Corridor is being constructed as a system strengthening scheme for inter regional power transfer between SR and WR. It is clearly evident that the system was not based on any LTA applications. In the present context of huge RE target of 175 GW by 2022 and 450 GW by 2030, the 6 GW Raigar-Pugalur HVDC corridor is an asset of national importance, similar to Biswanath - Agra HVDC system. Hence the transmission charges for this corridor shall also be included under 100% National Component category and shared by all DICs.

c. **Treating transmission lines constructed purely for RE evacuation as National Component**

KSEBL acknowledges the approach taken by Hon'ble Commission to treat the transmission lines constructed for RE evacuation as National asset which will help to reduce the transmission charges payable by the States where such assets are located. However, KSEBL has apprehensions on the approach taken by Hon'ble Commission in fixing 'zero cost' to such transmission lines during load flow study while computing the 'AC-UBC' Component as submitted below:

This proposal of assigning 'zero cost' to transmission systems developed for RE will double benefit the DICs using such transmission lines as submitted below.

- The cost of transmission system developed for RE is socialized and so the DICs presently using such systems is relieved from paying the entire transmission charges of such systems even while continuing to use these system for meeting their specific requirements.
- Over and above this, due to existence of actual power flow in these lines, the power flow in the other lines of the DIC taken for computing AC-UBC is reduced, which leads to further reduced usage based charges for these DICs.

Therefore, it is requested that the regulation and the methodology under Annexure I to the regulation be modified to the extent that while carrying out load flow studies for peak block the lines assigned with zero cost shall be switched off for study purpose and usage of rest of the lines under this scenario to be assessed. No significant issue of convergence is anticipated as solar RE generation at peak block is little and rest of ISTS is already designed to cater entire conventional generation. **It is also requested that assigning 'zero cost' in the load flow study may be carried out only for dedicated lines from RE generating station and lines evacuating power upto the pooling station and this may be clearly specified in the Regulation.** Alternatively, while KSEBL suggestion in subsequent paragraphs 5 is accepted by Hon'ble Commission, wherein it is proposed that the full cost of the transmission lines are shared by its users, this issue of double benefit can be addressed.

**Further, it is requested to specify in the regulation that socialization of only balance cost of ISTS systems meant for RE evacuation will be allowed after accounting for fiscal benefits already availed through schemes such as Green Energy Corridors, Solar Parks etc through which significant capital costs of such systems are already socialized.**

d. **Regional Component & Transformer Component:** KSEBL also acknowledges the proposal of Hon'ble Commission to consider the cost of STATCOMS, STATIC VAR Compensators and bus reactors under Regional transmission system by the entities in the region where they are located as well as the proposal for sharing the cost of ICTs under Transformer Component by the State in which the ICT is located.

5. While, most of proposals in the draft regulations are generally agreeable with observations as above, KSEBL has serious objection to the proposal in the draft Regulation to segregate the cost of AC transmission lines to AC-UBC and AC-BC components. This is totally against the mandate of EA,2003, Tariff Policy and the Regulations and not based on any scientific principles as already submitted in the initial submission filed on 31-12-2019. Further, on the

basis of insights gained during the workshop on 6-1-2020 and compilation of data available from CTU, the following are submitted:

a) Firstly, ascertaining the usage of a line based on its loading during peak block as against its SIL capability does not align with transmission planning criteria of CEA which insists for satisfying N-1 and N-1-1 contingencies for all transmission systems. Thus, by design, every system is not expected to be loaded to SIL capabilities and to treat the free capacity as balance capacity for socializing cost is not sound in view of the statutory planning criteria notified by CEA. Analysis show that such balance capacity would get utilized during contingent situations, and the benefit of such balance capacity will accrue mostly to those who use it in the normal scenario itself. Analysis of National scenario makes it evident that the benefit of such planned redundant capacities by way of enhanced reliability are not uniform across DICs and many DICs including KSEBL are facing power flow curtailments during many planned and forced outages of various ISTS. Since the benefits of redundant capacities are not same among DICs, sharing of balance component (without taking into account genuine contingencies) on prorate of LTA and MTOA may not be allowed by the Hon'ble Commission.

b) Secondly, and most importantly, it is respectfully submitted that the creation of significant underutilized ISTS capacities is a larger issue, the full extent of which is missed in the reports relied on by the Hon'ble Commission. It is submitted that the transmission assets are planned and constructed based on the LTA applications of generators and demand entities. The generation DICs apply for LTA, based on generation capability and need of expected demand customers while demand DICs apply based on their demand, internal generation and requirement from ISTS. As per the information available in the public domain (website of CTU), the LTA granted by CTU as on 30-11-2019 and for which transmission assets are constructed is 1,14,625MW. Out of which around 36,118MW of LTA has been relinquished/revoked. Out of the balance available LTA of 69,523.3 MW, only around 43,021.3MW LTA is in operation

| | | |
|---|---|---|
| LTA granted as on 30-11-2019 | 114625 | MW |
| LTA Relinquished/revoked | 36118.4 | MW |
| Present LTAO/LTA | 69523.3 | MW |
| LTA under operation | 43021.3 | MW |
| **% utilization** | **37.5** | **%** |

c) On an analysis of the LTA utilization by CGS and IPPS following are observed:

| | | |
|---|---|---|
| **LTA granted (from PGCIL website) (Nov-2019)** | 114625.4 | MW |
| CGS LTA | 19814.43 | MW |
| IPP LTA | 94810.94 | MW |

Out of the total LTA of 1,14,625.4 MW granted as on 30-11-2019, IPP LTA contributes to 94,810.94MW. The utilization of this LTA by the IPPs can be analyzed from the details in the RTA of all the regions. On analyzing the RTA of all the regions, the total utilization of LTA by IPPs is only 41.85% as submitted below.

| As per RTA (all Regional RTAs) (November 2019) | LTA utilized | |
|---|---|---|
| CGS LTA | 70136.16* | MW |
| **IPP LTA** | **39681.61** | **MW** |
| **LTA granted to IPPs** | **94810.94** | **MW** |
| **% utilization by IPPs** | **41.85** | **%** |

*CGS LTA includes deemed LTAs in respect of central generating stations whose systems were planned prior to LTA regulations.

d) **It can be noted that a huge quantum of 55,129 MW (94810 - 39,681) of LTA granted to IPPs are not currently being utilized. This is a huge figure in comparison with the total LTA now being billed, which is only a little over 1,00,000 MW. It is respectfully submitted in light of the above data, that both the committees which have examined the PoC mechanism has not gone into the entire magnitude of the issue and has limited their analysis to the high capacity corridors alone. The proposal to socialize the cost attributable to the failure of these IPPs by transferring the entire burden to DISCOMs which are already financially stressed will have huge ramifications on the consumers of these states. It is genuinely apprehended that the proposal fails on the statutorily mandated test of safeguarding the interest of consumers while ensuring recovery of reasonable costs. The proposal is likely to foster non optimum investments, which is also against the statutory framework.**

e) Transmission systems created based on the LTA application made by these IPPs and now underutilized by them is a serious malady and at present various DISCOMs using those underutilized systems are bearing the burden. While this is not an ideal situation, the proposal to socialize this cost among DICs on their LTA and MTOA is equally problematic. It succeeds only in transferring the burden from one set of DISCOMs to another set of DISCOMs. In fact it is more problematic since the estimated burden on some DISCOMs, including KSEBL, is arduous, even while they are not even remotely benefitted by those underutilized ISTS.

f) It is respectfully submitted that the existing Sharing and connectivity Regulations addresses these issues as follows and had taken care that such lapses from the part of any DIC is not socialized.

i. If a generating station is delayed beyond SCOD and its associated transmission system is commissioned, existing Regulation stipulates that the generating station shall pay the transmission charges of such transmission system and vice versa.

ii. Relinquishment of LTA is taken care of by collecting 66% of the estimated transmission charges (net present value) for the stranded transmission capacity for the period falling short of 12 (twelve) years of access rights. Relinquishment charges collected from relinquished LTA applicants are used to reduce the transmission charges of DICs.

g) However, failure to implement these regulations in letter and spirit has only led to the present fiasco. For example, while COD of Kudgi STPS delayed beyond its SCOD, the charges of Kudgi ATS were billed to southern region constituents. It required the kind intervention of Hon'ble CERC for getting the provisions in the regulation implemented. Even after the orders were issued by Hon'ble Commission, the eligible reimbursement was released to the constituents only during December 2019, after a delay of 3 years.

h) The issues related to relinquishment of LTA are much more drawn out. Even though the CTU is mandated to pass on the relinquishment charges that are due (not what is realized) as per regulations of this Hon'ble Commission, the same has not materialized so far, even while it is evident that about 60% of LTAs availed by IPPs are not under operation. Even though relinquishments of LTAs started pouring in as early as from 2014, none of the amounts due from these IPPs is seen used to reduce the transmission charges of DICs. All along, the burden out of the relinquishment has been shouldered by many DICs. Now, even before attempting to address these core issues the proposal is to transfer this burden to other DICs. The reports relied upon by the Hon'ble Commission has not attempted to find out ways in mitigating the undue burden on some state DISCOMs through efficient administration of the provisions in the regulations.

i) In due consideration of all these facts and the legal framework, KSEBL proposes the following to address the issues related to underutilization of ISTS.

i. The issue related to delay in COD of generating station is seen adequately addressed in the proposed regulation under regulation 11(4). CTU may be directed to follow the same promptly in letter and spirit.

ii. However, there is no provision for adjusting the relinquishment charges in the proposed Regulation. There need to be a well thought out mechanism for the same especially when there is a huge quantum of relinquishment charges from large number of generators getting bunched now, as a result of prolonged uncertainties over around 5 years. If the entire relinquishment charges accumulated over the years are used to reduce transmission charges in a single year, it can again lead to anomalous situations. Therefore it appears that a modified mechanism as below is suitable for adjusting the relinquishment charges especially considering the fact that there is already a huge relinquishment of around 36,118MW of LTA. Accordingly, **it is suggested that entire relinquishment charges due may be kept in a pool to be administered by Hon'ble CERC. The amount available in this pool along with interest may be transferred to CTU on a monthly/annual basis over the balance period of 12 years and this transferred amount may be excluded from respective line cost considered under Regulation 5 to 8 of the proposed Regulations (similar to the treatment under regulation 11(4) for delayed commissioning of generator). This will take away the burden of underutilized asset and will provide relief to the DICs, who are presently affected. Alternatively, the CTU may be allowed to retain the amount and while assigning line costs (under regulation 5 to 8 and Annexure I) for a particular year, for those ISTS which have incidence of relinquishment, only balance cost after excluding relinquishment charges due for that year (as considered while working out the relinquishment charges due from IPPs by CTU).**

iii. **Along with this, to bring down the burden on DISCOMs consequent to huge quantum of relinquishment by IPPs, Hon'ble Commission may consider special tariff for underutilized lines by considering elongated debt service period of say, 25 years, elongated useful life for assets while allowing depreciation and lower RoE etc so that all stakeholders take a portion of the burden created in the system.**

iv. Another mechanism for reducing the transmission charge burden of DICs owing to underutilized assets is to introduce charges for connectivity. Presently, connectivity is provided without any cost. This has enabled many merchant generators to avail connectivity (with part or nil LTA) without any charges and sell power through short term markets. Such generators are enjoying instant access to ISTS for their full capacity at their will without making any long term commitments towards the costs of the ISTS they use. By introducing a monthly connectivity charges on a per MW basis, CTU can utilize these charges for reducing the burden of transmission charges of all other DICs.

v. **Another, proposal that can be looked into to address the concerns of those States having underutilized ISTS assets is to bring back 'injection charges' for generators using LTA/MTOA, which existed earlier in the PoC mechanism.** As per this regime, the charges assigned to generation nodes are billed as 'Injection charges' to beneficiaries of the generating station in proportion to their allocation from such generating station in addition to 'withdrawal charges'. Hon'ble Commission vide the 3rd amendment to Sharing Regulations had merged the 'Injection charges' and 'withdrawal charges' and drawal utilities were made to bear 'withdrawal charges' only. Such merging had led to discrepancies like increased PoC withdrawal charges for DICs in States where there are more generating stations and have underutilized ISTS lines. An illustrative example is submitted below.

- Suppose in a region there are 3 generating stations and 2 drawal utilities who use the system as per load flow studies. Let the usage of the transmission system by the 3 generating stations be 20%, 30% and 10% and the drawal utility usage is 20% each.
- In the earlier PoC mechanism where there are separate 'injection charges' and 'withdrawal charges', the 3 generating stations will have their own 'injection charges' corresponding to the cost component corresponding to the usage of 20%, 30% and 10% of the transmission system and the drawal DIC loaded with their share of 20% each.
- Injection charges of these generators were loaded on the beneficiary DICs of these stations and thus the drawal DIC in that region was only charged with his usage of 40% share in cost.
- Now, with the removal of 'injection charges' post the 3rd amendment, the drawal DICs of that region gets loaded with 100% share of the cost of the transmission system, even though their actual usage is only 40% and the generators and the beneficiary DICs of these generators are relieved from sharing the costs. This is an anomaly which has resulted due to the merging of 'Injection charges' with 'Withdrawal charges' and this has resulted in the increase in PoC charges of some states even though there are many generating stations in these states. Thus, the Hon'ble Commission may consider reintroduction of injection charges in these regulations.

6. On the basis of the above submission, it is humbly submitted that the proposal to share AC-BC component, which consists more than 50% of the MTC, on LTA plus MTOA basis among all DICs be dropped and proposals submitted under paragraphs 5(i)(i) to 5(i)(v) be considered appropriately.

**Other issues:**

7. **Loss:** Calculation of losses on all India basis rather than regional basis existing now is welcomed.

8. **Treatment of Short Term Open Access:** As per the proposed Regulation, there is no transmission charge for STOA. It is submitted that this exemption is not in accordance with the provisions of section 38(2)(d)EA,2003 which prescribes that open access is granted on payment of transmission charges. Further, such exemption will prompt entities to prefer STOA instead of LTA/MTOA, adversely affecting network planning and transmission corridor congestion. If transmission charges are not levied from embedded intra state short term open access consumers of the State, it will lead to socialization of these charges and is inequitably loaded on the ordinary consumers of such State. The proposal that charges for usage of ISTS by embedded customers be decided by SERCs is also not in tune with the clear earmarking of responsibilities among State and Central Regulatory Commissions in the Act, as interstate transmission charges are to be specified by CERC only. Accordingly, it is suggested that the regulation may specify that for non-DICs who avail inter-state STOA, the charges applicable shall be the transmission deviation charges applicable for the respective State.

9. **Transmission Deviation:** As per the proposed Regulation, Transmission Deviation is the drawal/injection over and above the LTA + MTOA and it is charged at 1.20 times the Transmission charge. In this matter, it is submitted that penalizing a scheduled STOA is not legal, particularly when the transmission asset is only 35% utilized and STOA aid in utilizing the under-utilized transmission asset. Penalty for deviation provided to restrain gaming by DIC in demand projections for load flow studies. As per the proposed Regulations, load flow studies in post facto are based on actual data and thus there is NO need for a penalty for deviation. Therefore it is requested that, for DICs, transmission deviation may be defined as the drawal exceeding the sum of LTA, MTOA, STOA obtained after due procedure of CERC and STOA of intra state embedded consumers/intra state entities. Alternatively, deviation due to STOA may be charged at a rate equal to 1.0 times transmission charges of the State instead of 1.20 times.

10. **Treatment of Unrequisitioned power**

The proposed Regulation does not have any provision on the treatment of URS power availed by a DIC. It is humbly requested that URS power may be treated as LTA of the DIC and transmission deviation charges may be exempted for URS. Also, clarity on how to

consider URS power availed only for part of the month under the LTA of a DIC and the methodology for calculating transmission charges may be specified in the RegulationIt is humbly submitted that the original submission of KSEBL along with this instant submission may kindly be considered while finalizing the Central Electricity Regulatory Commission (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2019.

Yours faithfully,

**Deputy Chief Engineer (Commercial & Planning)**
**With full powers of Chief Engineer**