#### Regulation No.: L-1/11/2019/CERC

Reference No.: 10/2019

Regulation Details			
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Regulation No.	L-1/11/2019/CERC	<b>Regulation No. Generation Date</b>	05/11/2019
Regulation Type	: New Regulation		
Regulation Title	: Draft Central Electricity Reg Losses) Regulations, 2019	gulatory Commission (Sharing of Inter-State	Transmission Charges and
Subject	: Draft Central Electricity Reg Losses) Regulations, 2019	gulatory Commission (Sharing of Inter-State	Transmission Charges and
Comment Details			
Туре	: Stakeholder Comment		
Stakeholder Name	: Rajasthan Urja Vikas Nigan	n Limited (RUVNL)	
Order Date / Direction of Commission / Compliance D	: 31/10/2019 Date		
Brief of Comments/Objections/Suggestions : In the draft Regulations for sharing of ISTS charges and losses, CERC has proposed to identify slack nodes using Average Participation (AP) Method, however, while finalizing the 3rd amendment of the CERC (Sharing of ISTS Charges and Losses) Regulations, 2019 it was discusse to implement Min Max Fairness Method for selection of Slack Bus. Min Max Fairness Policy tries for equity in POC tariffs to the extent possible without violating the Laws of Physics in calculating the extent of use by providing favourable economic slack bus for high POC tariff entities. Min Max Fairness Method guarantees best possible choice of economic slack bus to reduce regrets. Moreover, Average Participation Method fails in case of loop flows, while Min Max Fairness Method for selection of slack nodes.			nalizing the 3rd ons, 2019 it was discussed lax Fairness Policy tries for f Physics in calculating the tariff entities. Min Max to reduce regrets. e Min Max Fairness Method
Attachment			
Document Type Description	i File Name		
Comment	Comments on CERC Draft Inter State	e Transmission Charges 2019 Rajasthan An	nexure 1.pdf

Clause	Comment
Not Applicable	The State cannot ascertain the exact impact of the draft CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2019 on the Discoms and the end consumers. For such impact analysis the Discom would require extensive data of load flow, YTC, type of line etc. which shall be available with the Central Electricity Regulatory Commission. The Discom won't be able to identify actual impact of the draft regulations on the state Discoms and consumers thereon, unless the governing body i.e. CERC provides an illustration of sharing of transmission charges and losses with actual figures for each component.
	The Commission is hereby requested to provide an illustration with actual load flow analysis, YTC, line length and other charges for computation of sharing of charges and losses based on the draft CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2019 and existing CERC (Sharing of Inter-State Transmission Charges and Losses) Regulations, 2010 (with subsequent amendments)
	The Commission is also requested to provide component wise breakup of yearly transmission charges and percentage of charges among each component described below:
	(i) National Component a. Renewable Energy Component

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b. HVDC Component (30% of HVDC
Charges)
(ii) Regional Component:
a. HVDC Component (70% of HVDC
Charges)
b. Element wise cost
(iii) Transformer Component
(iv) AC System Component:
a. AC Usage Based Component
b. AC Balanced Component
The Commission is further requested to provide access to the software used for apportionment of transmission charges to the DICs. The commission may also arrange for seminar on the draft regulations for DICs to have a better understanding of the methodology.

Chapter 1: Preliminary		
3. Principlesofsharingtransmission charges(4) Long Term Access or Medium TermOpen Access for projects covered under	Clause (4) of Section 3 of the said regulation clearly specifies that exemption of transmission system build for renewable power within a defined timeline and	
clause (1) of Regulation 11 shall not be considered for apportionment of transmission charges under Regulations 5 to 8 of these regulations.	fulfilling certain conditions shall not be considered for apportionment under Regulation 5 to 8 of the draft regulations. The Commission has provided clarification	
<ul> <li>11. Transmission charges in specific cases</li> <li>(c) No transmission charges and losses shall be payable for the generation projects based on solar or wind resources for the use of ISTS, for a period of 25 years from the date of commercial operation of such generation projects if they fulfill the following conditions:</li> </ul>	in explanatory note that the cost of proposed transmission system built for renewable generation which are covered under waiver scheme of transmission charges shall be billed in National Component. However, the draft regulations does not provide clarification on the same in section 5 clause (2). The Commission is hereby requested to provide clarification in the regulations that	
	under National Component-Renewable Energy shall comprise of transmission charges for transmission systems developed for renewable energy projects and which fall under the transmission charges waiver scheme.	
	The Commission is also requested to mention the charges/ components applicable on renewable (solar & wind) generators who are not part of ISTS charges waiver scheme and will be sharing ISTS	

Clause	Comment	
Chapter 2: Components and Sharing of ISTS Charges and Losses		
<ul> <li><b>5. Components and sharing of</b> National Component (NC)</li> <li>(2) National Component-Renewable Energy shall comprise of transmission charges for transmission systems developed for renewable energy projects as identified by the Central Transmission Utility.</li> </ul>	In certain cases CTU has developed HVDC system for evacuation of Renewable Energy. The Commission is requested add necessary clause to clarify that such HVDC system developed for evacuation of Renewable Energy shall form a part of "National Component-Renewable Energy". As the transmission system developed for RE evacuation is active during day time, thus in order to compensate the reactive power utilization during night time additional STATCOM, reactors etc are installed in the transmission system. The Commission is requested to clarify in the said regulation that the transmission system covered under national component includes such as STATCOM, reactor and other components of GSS.	
<ul> <li><b>5. Components and sharing of</b> National Component (NC) (2) National Component-Renewable Energy shall comprise of transmission charges for transmission systems developed for renewable energy projects as identified by the Central Transmission Utility.</li></ul>	<ul> <li>Rajasthan being a RE rich state with all of its RE generation connected at Intra-State network, National Component Renewable Energy shall be an additional cost to be borne by the state despite of no use of the inter-state network developed for RE evacuation.</li> <li>The Commission is requested to allocate National Component-Renewable Energy to those DICs which have inter-state RE LTA. The RE component can be allocated in the ratio of DIC RE LTA and National RE LTA.</li> </ul>	

<ul> <li>5. Components and sharing of National Component (NC)</li> <li>(3) National Component-HVDC shall comprise of the following: <ul> <li>(a) 100% transmission charges for</li> <li>"Back to Back HVDC" Transmission System;</li> <li>(b) 100% transmission charges for Biswanath Chariali/Alipurdwar – Agra HVDC Transmission System;</li> <li>(c) Proportionate transmission charges of Mundra–Mohindergarh HVDC Transmission System corresponding to 1005 MW capacity; and</li> <li>(d) 30% of transmission charge for all other HVDC Transmission Systems except</li> </ul> </li> </ul>	The Commission has allocated 30% of HVDC Charges under sub-clause (d) of clause (3) as a part of National Component. However, it is believed that HVDC lines play larger role in the reliability & stability of transmissions system. Also, with increase in Renewable Energy Generation the dependability on HVDC to provide transmission system stability will increase. Thereby the Commission is requested to allocate 50% of HVDC Charges under sub- clause (d) of clause (3) as a part of National Component.
<ul> <li>(b) and (c) of this Clause of these regulations.</li> <li><b>5. Components and sharing of</b> National Component (NC)</li> <li>(4) Transmission charges for the National Component shall be shared by the drawee DICs in the ratio of their</li> </ul>	Commission in the explanatory note has clearly mentioned that National Component is applicable on all DICs however, the Commission has failed to clarify the same in the draft regulations.
<ul> <li>quantum of Long term Access plus Medium Term Open Access.</li> <li>(5) Transmission charges for National Component in respect of injecting DICs with untied LTA capacity shall be shared by such injecting DICs in the ratio of their untied LTA capacity.</li> </ul>	Commission is hereby requested to clarify that National Component is applicable on DICs using the particular network or region or on all DICs.

Clause	Comment	
Chapter 2: Components and Sharing of ISTS Charges and Losses		
<ul> <li>6. Components and sharing of Regional Component (RC)</li> <li>(1) Regional Component shall be the sum of the following components:</li> <li>(a) Regional Component of HVDC (RC- HVDC) -70% of transmission charges of HVDC Transmission Systems except those covered under clause (3) of Regulation 5 and clause (6) of Regulation 6;</li> </ul>	The Commission is requested to clarify in the regulation itself that the HVDC charges shall be computed region wise or nation as a whole. In the explanatory note submitted by the Commission, with the help of an example Commission has explained the transmission charges of HDVC system shall be calculated region wise only and thereby shared among the DICs of the selected region.	
	The commission is also requested to provide details of HVDC lines and the region where they are falling into.	
<ul> <li>6. Components and sharing of Regional Component (RC)</li> <li>(b) Transmission charges for Static Compensator (STATCOM), Static VAR Compensator (SVC), Bus Reactors, and any other transmission element(s) identified by Central Transmission Utility being critical for providing stability, reliability and resilience in the grid.</li> <li>Provided that where separate transmission charges are not available in respect of specific elements, the transmission charges shall be computed based on indicative capital cost to be provided by Central Transmission Utility.</li> </ul>	Commission is requested to name and define the elements or components critical for stability, reliability and resilience in the grid.	

<ul> <li>6. Components and sharing of</li></ul>	In case non-availability of element wise
Regional Component (RC) <li>(b) Transmission charges for Static</li>	separate transmission charges the draft
Compensator (STATCOM), Static VAR	regulations allow CTU for computation of
Compensator (SVC), Bus Reactors, and	indicative capital cost.
any other transmission element(s)	The Commission along with the final
identified by Central Transmission	sharing of inter-state transmission charge
Utility being critical for providing	and losses regulation is requested to provide
stability, reliability and resilience in the	tentative list of all such elements as
grid. <li>Provided that where separate</li>	mentioned in Clause 6 sub-clause (b) and
transmission charges are not available	also fix a normative element wise cost of
in respect of specific elements, the	such elements if actual cost of element is not
transmission charges shall be	available.
computed based on indicative capital	Thereby if element wise transmission charge
cost to be provided by Central	is not available the CTU shall follow the
Transmission Utility.	normative element wise cost fixed by CERC.
<ul> <li>6. Components and sharing of Regional Component (RC)</li> <li>(2) Transmission charges covered under sub-clause (a) of clause (1) of this Regulation shall be shared by the Drawee DICs in the ratio of their quantum of Long Term Access plus Medium Term Open Access.</li> </ul>	Commission is requested to clarify whether Regional Component under sub-clause (a) of clause (1) (HVDC Charge) is applicable on DICs in a particular region and DICs using the particular network or on all DICs.

Clause	Comment	
Chapter 2: Components and Sharing of ISTS Charges and Losses		
<ul> <li>7. Components and sharing of Transformers Component (TC)</li> <li>(1) Transformers Component shall comprise of transmission charges for inter-connecting transformers planned for drawal of power by the State. The list of such transformers for each State shall be provided by the Central Transmission Utility to the Implementing Agency.</li> </ul>	The Commission in the explanatory note has explained that the transmission charges for inter-connecting transformers shall be shared among the DICs in the ratio of number of feeders connected to each state. The Commission is requested to provide the same clarification in the draft regulations.	

Chapter 2: Components and Sharing of ISTS Charges and Losses		
<ul> <li>9. Computation of share of transmission charges under AC-UBC</li> <li>(1) The Base Case file shall be prepared by the Implementing Agency for the Peak Block of the month comprising of the file of the statement of the s</li></ul>	In the existing CERC regulations, 2010 on sharing of ISTS Charges & Losses the Commission had directed to formulate Validation Committee for validation of Basic Network, nodal generation, nodal demand and load flow results for subsequent financial year.	
the following: (a) Basic Network, which shall be the network file for the power system for the peak block of the month; and	However, the Commission in the draft regulations failed to incorporate the existence and functions of validation committee.	

Clause	Comment	
Chapter 3: Special Cases		
<ul> <li>11. Transmission charges in specific cases</li> <li>(a) No transmission charges and losses for the use of ISTS shall be payable for solar generation for the useful life of the projects commissioned from 1.7.2011 to 30.6.2017.</li> </ul>	Extending relaxation in transmission charges and losses for solar and wind based generation shall help the State to meet their RPO obligations as per Tariff Policy at a low landed power purchase cost of Renewable power.	
<ul> <li>(b) No transmission charges and losses for the use of ISTS shall be payable for the capacity of the generation projects based on solar or wind resources for a period of 25 years from the date of commercial operation of the such generation projects</li> <li>(iii) Power Purchase Agreement(s) have been executed for sale of power from such generation capacity to the Distribution Companies for compliance of their renewable purchase obligation</li> <li>(c) No transmission charges and losses shall be payable for the generation projects based on solar or wind resources for the use of ISTS, for a period of 25 years from the date of commercial operation of such generation projects</li> </ul>	However, it is submitted that for a state like Rajasthan where almost whole of the Solar RPO compliance is met from Renewable Energy generated within state and connected to intra-state transmission network. In such case there is no benefit in the landed cost of Renewable Power to Rajasthan, although Rajasthan Discom shall be liable to pay for transmission charges of renewable energy under National Component. This would not impact the existing power purchase cost from renewables but shall increase the share of ISTS charge leading to financial burden over the discoms and end consumer. It is thereby requested to modify the clause as such a RE rich state with intra-state connectivity is not affected. The Commission is requested to allocate National Component-Renewable Energy to those DICs which have inter-state RE LTA. The RE component can be allocated in the ratio of DIC RE LTA and National RE LTA.	

<ul> <li>11. Transmission charges in specific cases</li> <li>(7) In case the generating station or unit(s) thereof has achieved COD and transmission system is delayed, the concerned transmission licensee(s) shall make alternate arrangement for dispatch of power in consultation with Central Transmission Utility at the cost of the transmission licensee (s).</li> <li>Provided that till such alternative arrangement is made, the transmission licensee(s) shall pay to the generating station the transmission charges proportionate to Long Term Access for the transmission system which is delayed.</li> </ul>	Commission is requested to properly define that any additional charges borne by the Transmission licensee(s) on account of penalty due to delayed COD (as specified in the said clause), shall not be passed on to the Distribution Licensee and shall be borne by the Transmission Licensee(s) only. It is further submitted that there may be situations where CTU has to make alternate arrangement for dispatch of power in consultation with STU due to delay in completion of transmission system to be developed by CTU. In such scenario the Commission is requested to provide in the regulation that if CTU makes alternate arrangement through STU network, then either CTU or the
<ul> <li><b>11. Transmission charges in</b></li> <li><b>specific cases</b></li> <li>(10) Where a generating station is connected to both ISTS and intra-State Transmission System, the ISTS charges</li> </ul>	STU network, then either CTU or the generating station shall be required to pay transmission charges proportionate to the LTA. The Commission is requested to add another clause to cover those cases wherein an Inter-State Generating Station (ISGS) or pooling station of ISGS (applicable for solar and wind generators) is connected only to Intra-State Transmission System, due to
and losses shall be applicable only on quantum of Long Term Access and Medium Term Open Access connected through ISTS and STU charges and losses shall not be applicable on such capacity connected through ISTS. Provided that this provision shall be subject to availability of adequate capacity in the intra-State Transmission System to draw allocated quantum of Long Term Access or	non-availability of inter-state network and the beneficiary for such ISGS is located outside the host state. The Commission is requested to consider such transmission system as deemed ISTS and should be excluded from the certification by respective RDC.

Medium Term Access as certified by
the Central Transmission Utility.

Clause	Comment		
Chapter 4: Accounting, Billing and Collection of Transmission Charges			
<ul> <li>13. Billing.</li> <li>(2) The billing for transmission charges for DICs shall be raised by the Central Transmission Utility under the following three categories of bills:</li> <li></li> <li>(c) The Third Bill shall be raised for each month as follows:</li> </ul>	In the existing CERC sharing of ISTS charges and losses, 2010 regulations, the Commission has allowed for a tolerance/ deviation of 20% beyond a sum of approved withdrawal, approved additional medium term withdrawal and approved short term withdrawal in any time block for levy of Transmission Deviation Rate.		
<ul> <li>i. This shall comprise of bill for transmission deviation and shall be billed along with the First Bill by the Central Transmission Utility.</li> <li></li> <li>iii. Transmission Deviation Rate shall be calculated as follows:</li> </ul>	However, the commission in the draft regulations has proposed to charge transmission deviation rate on the injecting and drawee DICs in case the aggregate metered injection (MW) or the aggregate metered drawal (MW) of a DIC, in any time block exceeds the sum of LTA & MTOA.		
<ul> <li>a. Transmission Deviation Rate for a State shall be charged at 1.20 X (transmission charges of the State for the Billing month)/ (quantum of Long Term Access plus Medium Term Open Access of the State for the Billing month)</li> <li>b. Transmission Deviation Rate for generating stations and bulk consumers shall be charged @Transmission Deviation Rate for</li> </ul>	Such stringent reduction in the deviation limit of DIC will adversely impact the transmission charges of the DICs. It is hereby requested to the Commission to revise the said clause and propose graded reduction in the deviation limit with a minimum permissible deviation of +20% or as the Commission may deem fit.		
the State where the generating station or bulk consumer is located.			

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10. Sharing of transmission	Short term power exchange or open access
losses	is a growing market and is expected to hold
(3) No transmission loss for ISTS shall be applicable while preparing schedule for injection node including that for	a significant amount of power flow in the transmission and distribution network. Levying zero transmission charge and zero
Collective Transactions over the Power	transmission losses for inter-state
Exchanges. 13. Billing	transmission iosses for inter-state transmission system on short term open access transactions will have an indirect increase in the transmission charge to be borne by Discoms and end consumers.
(3) No transmission Charges shall be levied for Inter-State transmission system in respect of Short Term Open	Hereby, the Commission is requested to levy transmission charge on the short term open access consumers.
Access transactions.	The Commission in the explanatory note has clarified through the examples that transmission deviation rate shall be applicable on short term open access also, however the Commission has not provided any such clarification or clause in the draft regulations.

Clause	Comment	
Chapter 5: Information and Procedures		
21. Timeline for furnishing the information (6) If a DIC doesnot provide the required data, including injection or drawal data for intra-State points within stipulated time period, it shall be levied an additional transmission charge @ 1% of the transmission charges under the First Bill for the month.	<ul> <li>Primary and most crucial objective of a Discom is to provide reliable, continuous and economical power supply to the end consumers.</li> <li>Meeting such stringent timelines in furnishing the necessary information might be difficult depending upon situation to situation. Also, the Discoms due to some uncontrollable and unforeseen reasons may miss the deadline which would further lead to financial burden on the already debt ridden Discoms.</li> <li>Hereby, the Commission is requested not to levy any such penalty charges incase of genuine reasons of delay at the end of DICs.</li> <li>The Commission is requested to provide the details of information required and assign responsibility for the same.</li> </ul>	

Clause	Comment
Annexure-I 5. Steps to be followed under under Hybrid Method (C) Identification of the Slack Nodes: Using Average Participation Method	In the draft Regulations for sharing of ISTS charges and losses, CERC has proposed to identify slack nodes using Average Participation (AP) Method, however, while finalizing the 3 <sup>rd</sup> amendment of the CERC (Sharing of ISTS Charges and Losses) Regulations, 2019 it was discussed to implement Min Max Fairness Method for selection of Slack Bus.
	Min Max Fairness Policy tries for equity in POC tariffs to the extent possible without violating the Laws of Physics in calculating the extent of use by providing favourable economic slack bus for high POC tariff entities. Min Max Fairness Method guarantees best possible choice of economic slack bus to reduce regrets.
	Moreover, Average Participation Method fails in case of loop flows, while Min Max Fairness Method will avoid the problem of loop flows.
	The Commission is hereby requested to consider Min Max Fairness Method for selection of slack nodes.