

Comments on draft Central Electricity Regulatory Commission (Transmission Planning and other related matters) Regulations, 2017

Transmission planning in the integrated Grid System should be well defined, holistic and transparent ensuring benefit of all constituents at national level. It should provide support to power deficit states with the help of power rich (RE and natural resources) states in a integrated manner, at the same time it should ensure that power rich states are not overburdened due to extensive transmission system being developed in their state. Transmission planning should be technically, physically and financially viable for all the entities of national Grid.

The clause-wise comments on CERC Regulation 2017 on transmission planning are submitted as under :-

| S.NO. | CERC Notification Clause | RVPN's Comments /Suggestions |
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| 1 | 6. Role and Responsibility of CEA | The CEA shall co-ordinate for transferring surplus power of RE rich states to neighbouring states within their respective regions and other regions. |
| 2. | 12. Role of Generators: | Following point may be added: Generating Stations should be ready to absorb MVARs (reactive Power) in case of high voltage during low loads and should declare upfront the quantum /capacity of MVAR support it can provide. |
| 3. | 17. Central Repository for Generators and GNA | The Central Repository for Generators and GNA are good are good concepts and can prove to be very useful tools for maximizing capacity utilization of existing transmission system. With the help of Central Repository for Generators and GNA demand supply balance can be managed at national level so that the intermittency of RE Generation is compensated and 175 GW RE target is achieved without overbuilding transmission system. The overall demand should be scheduled in various states such that power availability and system stability in national grid is maintained without curtailment of RE power in RE rich states and without load shedding in power deficit states. |

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| 4 | 20. Transmission Planning criteria | <p>For grid stability and for maintaining reliability of ISTS system the redundancy kept in transmission lines especially long HVDC lines and 765kV Corridors leads to high voltage. The shunt reactors can only compensate small quantum as compared to the high voltage developed in the system e.g. 125MVAR 400kV Shunt reactor can compensate upto 4-5KV only whereas high voltages are to the tune of 440kV.</p> <p>Specific measures have been mentioned in CERC notification, in addition lines injecting high MVARs need to be identified. The issue of high voltage is to be addressed irrespective of inter and intra regional aspect. The intra state lines which are kept under loaded or floating for system reliability should be declared ISTS without considering 50% criteria. All Statcoms at strategic nodes and to which huge wind projects and Solar parks are connected should be installed as ISTS.</p> |
| 5. | 23. Procedure for Transmission Planning: | <p>Following point may be added: (c) While designing ISTS in a state, CTU shall ensure that existing STU system does not become underutilized on this account. The interstate transmission system planned should be such that both inter and intra networks are optimally utilized leading to better economic viability of new transmission assets being added.</p> |
| 6. | 23. subclause (p) Transmission Planning for Renewable Energy Sources: | <p>For RE rich states like Rajasthan which do not have Hydro power projects or Gas power projects which can easily ramp up and down integrating intermittent and infirm power causes overbuilding of transmission system. For flattening load curve Battery Energy Storage System of atleast 10% of installed capacity should be mandatory for RE Generators. Till cost of BESS is reduced 50% grant can be provided to RE developers by MNRE under PSDF or NCEF to make it viable for them. This will have added advantages of improving voltage quality by suppressing harmonics and reducing VAr compensation requirement during off peak injections.</p> |

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| 7. | 18. Transparency in the planning process & 24. Regulatory approval of transmission system | For RE rich states like Rajasthan, ISTS transmission system to be developed by CTU for RE integration is required. However, for all GSS & lines in a state including that for Green energy Corridors or for outside state beneficiaries, loading of cost to be shared by the state worked out as per the hybrid methodology of POC mechanism with the detailed calculations and participation factors as per marginal flows may be shared with the respective state before approval. |
| 8. | 27. Manpower Deployment in Transmission Planning | CTU should share PSSE software updates and impart training to STU for intra state study regularly. |