Summary of the comments and suggestions received on Approach Paper on Terms and Conditions of Tariff Regulations for the tariff period 1.4.2014 to 31.3.2019

(Ref No. 20/2013/CERC/Fin(Vol-I)/Tariff Reg/CERC Date: 25th June'2013)

5.4 Operating Norms for Transmission System

The Comments are invited in regard to following issues, namely_

In view of the above, comments are invited on the need to review the existing approach for operational norms and level of Normative Annual Transmission Availability Factor (NATAF). Suggestions are invited on weightage factor to be applied for arriving outage hours for calculating NAFM of transformer and Switchable reactor of substation element.

Comments/suggestions:

Sr. No.	Name of organization /stakeholder	Comments/ Suggestions
A) Electricity Regulatory Commissions (JERCs/SERCs)		
A.1	Chhattisgarh State Electricity Regulatory Commission (CSERC)	In view of the technological advances and the increased share of higher voltage systems, the present Transmission System Availability Factor for a calendar month (TAFM) level needs upward review. It is submitted that in view of the limited data with SERCs, CEA may be better placed to suggest the optimum level of TAFM.
B) Government Departments		
B.1	Government of Punjab, Dept. of Power	The methodology followed for working out transmission system availability needs to be revisited. In existing methodology, there is equal weightage given to all the elements, irrespective of location of the transmission system at generation end and tail end. There should be some difference in weightage in such elements.
B.2	Power System Operation Corporation Ltd.	Number of Outages / Trippings: The following factors affect the reliability of the power system: i. More than a certain number of trippings per year. ii. Faults causing more than one element tripping due to undesirable operation of the protective systems. iii. Multiple tripping of lines and/or generating units leading to loss of generation and/or load. Therefore, each of the above-mentioned factors pertaining to Dependability, Reliability and Security may be adequately captured in the fixed charge recovery by Generating Companies and Inter State Transmission Licensees. Availability of Reactors: Non-availability of reactors could lead to opening of other lines to control over-voltage and would result in structural deficiency in the transmission system. Therefore, Non-

		availability factor in per unit for the month (NAFM) of transmission lines may factor in higher weightage for outage / non-availability of the reactors. Further, COD of transmission system planned with reactors may be allowed only when all the elements including line reactors are available and operating in healthy condition. Multiple Owners: In a multiple inter-state transmission licensee scenario, the bays and lines could be owned by different agencies. The Quality of Service (QoS) to the consumer vis-à-vis payment on account of incentives should not change in a multiple transmission licensee scenario. In such scenario, the total availability is worked out for the system as a whole (line plus bays taken together) and based on this the incentive needs to be shared between the line owner and the bay owner in the ratio of their individual availability. This will force the parties to work in close co-ordination and provide better service. Need to link fixed charge payments to reliability support by generators: For generators which require to operate with oil support at level below technical minimum, suitable compensation may be allowed for the secondary consumption (as per actual in addition to the normative one). This will help the system operator to contain system frequency during surplus conditions. Further, it is important that generating units are kept on bar to provide reactive power support and control high voltage. These generating units must take oil support to sustain operation at say 50-60% of the rated load. Failure of the generating station to comply with above requirements and in the event of not providing reliability support services should result in deduction of fixed charges. Financial Norms: The transmission elements may be kept on trial operation for a prescribed period. Further, CoD may be allowed at any day of the month as this will prevent bunching of requests for commissioning of transmission elements by the transmission licensees at the end of month. Availability of Control Equipment: Non-availability of control equipment may be dis-incentivized. Separation of charges for ISGS: Charges for bay equipment at switch yard of ISGS may be separated out from the generation tariff and their charges are to be proportionately reduced based on non-availability in line with methodology applicable for transmission licensees. Two Shift Operation: While specifying the operating norms for

		generators with super critical technologies and CCGT etc., two shift operation may be made mandatory for those generators. Auxiliary Power from the Grid: Treatment of drawl of auxiliary power from grid during unit outage, trial operation and total station shutdown may be specified.
B.3	Southern Region Power Committee	Most of the systems are using polymer insulators. ERS is also being utilized. Hot line Maintenance techniques are being utilized. Spare ICTs and Reactors have been agreed. ERS SS are also being procured. The availability norm of AC system could be maintained (construction activity could be booked in transmission licensee account), since there is considerable improvement in HVDC availability.
C) Central Generators/Transmission License		
C.1	Power Grid Corporation of India	The normative target availability for full recovery of the transmission system may be fixed at 96% for AC transmission system and exclude the planned maintenance outage from the calculation of transmission system availability. The calculation of availability needs to be modified. The calculation of availability which was applicable for the tariff block 2001-04 and 2004-09 may be applied. However, the guidelines given in Regulations 2009 are perfectly OK and same may be kept for the ensuring tariff block with the exception of calculation which needs to be modified. Further, same methodology should be adopted for calculation of availability of HVDC system as was adopted by CERC for the last 12 years (1997-98 to 2004-09). Further, by virtue of increase in the normative availability of the transmission elements, the scope of earning the incentives has reduced drastically for POWERGRID in the successive tariff blocks since the maximum availability can be a maximum of 100%. Further, the introduction of incentive mechanism linked to AFC has resulted in reduction of the quantum of incentive earned as AFC gets reduced over the years. Hence there is a need to increase the margin of incentives being extended to the utility. It is therefore proposed that the previous regime of allowing incentive on the equity base of the utility should be restored.
C.9	Central Electricity Authority (CEA)	Penalty for frequent trippings- At present, the availability of POWERGRID lines is calculated on regional basis which gives them advantage in terms of incentive. There is a need to penalize POWERGRID or any other Inter-State Transmission System (ISTS) licensee in case of frequent or abnormal trippings on a particular line due to any reason other than force majeure. Further, to avoid manipulation, it is suggested that Member Secretary, RPC should file the availability report of ISTS licensees on an affidavit. Further, POWERGRID is recovering its full ARR through the national tariff mechanism. However, POWERGRID is given

		preferential treatment vis-à-vis other ISTS licensees and they are being allowed to retain 25% of the transmission revenue recovered through Short Term Open Access (STOA) service. The scheme of allowing POWERGRID to retain a portion of the STOA revenue was introduced in 2004, because at that time the O&M norms had not visualized STOA service to be provided by Power Grid. In the draft STOA amendments published in 2012 by CERC, this provision was deleted which is resulting in about Rs. 300 Crore additional revenue to POWERGRID at the cost of the DICs. However, CERC has not yet published the final amendments to STOA deleting the provision of additional revenue to POWERGRID. This should be stopped forthwith and no extra revenue should be paid to POWERGRID over the above their ARR. Further, the revenue sharing arrangement for the renting of spare optic fibre cables to third party was decided long time ago by the Commission. The same needs to be reviewed in order to adequately compensate the DICs.
D) State Sector (Generators /Transmission Cos./Distribution Cos./SEBs/SLDCs)		
D.1	Rajasthan Discom Power procurement Centre.	The methodology in working out transmission system arability needs to be revisited. In existing metrology equal weightage is given to all the elements irrespective of the location may be at generation end or of transmission system. There should be some difference in weightage in such elements.
D.2	Uttar Pradesh Power Corporation Limited	Comments to be offered based on data submitted by CGU.
D.3	Gujarat Urja Vikas Nigam Limited	Auxiliary norm for transmission system needs to be reviewed considering efficient equipments, new technology and stable grid operation.
D.4	Chhattisgarh State Power Distribution Co. Ltd.	In view of the past performance of the transmission system NATAF could be fixed by the CERC.
D.5	MP Power Management Company Ltd.	In view of introduction of new technologies in transmission, fresh look is required for specifying availability of transmission system
D.6	Tamil Nadu Generation and Distribution corporation limited (TANGEDCO)	The existing level of Annual Transmission Availability Factor (NATAF) needs revision based on the actual operational data to be furnished by Power Grid. These data may be shared with the stakeholders as the availability of transmission lines/auto transformers/reactors, etc., are much more than 95% and hence these need to be analyzed to arrive NATAF. With the likelihood of commissioning of more 765 kV transmission systems, HVDC systems operational norms and calculation of TAFM and NAFM need to be addressed.
E) Private Sector (Generators/Transcos./Distribution Cos)		

E.1	BSES Yamuna Power Limited	Comments shall be offered based on data submitted by CGU.
E.2	Association of Power Producers (APP)	The weightage for equipment shall be considered half of the norms if standby supply is made available. In true sense, it shall not be considered unavailable as in the case of thermal units, standby equipment does not impact availability.
F) Other Organizations/NGOs/Institutions		
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G) Individual		
G.1	Shri R. B. Sharma	The present procedure for computation of transmission system availability factor for a month needs review by excluding the following contingencies; • The shut down availed for maintenance and construction of another transmission scheme may be treated as non-availability as it causes constraints in the system operation. • The switching off of a transmission line to restrict over voltage may be treated as non-availability as it causes constraints in the system operation.
G.2	Shri Arun Kumar Dutta	The existing norms should be revised upward and factors should be modified to achieve higher efficiency with minimum enhancement of 2% annually. In case of over achievement suitable incentive of 25% may be allowed to reward the employees of the company.