

S N POWER/STATKRAFT COMMENTS ON CERC STAFF PAPER

At the outset, Statkraft appreciates the initiative of the Commission and the opportunity to provide inputs and interact on this important subject. We believe that the subject of transmission planning and regulation requires significant deliberation and discussion at various levels among stakeholders. The current paper is a good beginning as it reviews the international experience and presents various options. Statkraft is present in India with interest in hydro power generation and power trading businesses. Our views are presented below on various questions raised in the paper. We have combined our comments to cover some logical points together.

1. Transmission Planning (Question 10, 9 and 7):

As a principle, the following proposals are requested for consideration:

- a. The present transmission planning needs to be reviewed particularly to enable establishment of a dynamic and efficient power market as envisaged in the Electricity Act 2003. We believe that the twin principles of Open Access and non-discrimination require fundamental change in the rules and organization of the electricity system.
- b. Yes, it is desirable to provide separate regulation for transmission planning to make it more explicit and participative. Transmission planning needs to balance the interest of stakeholders and ensure smooth transfer of power and grid stability. The international experience suggests that different stakeholders will likely take varying positions and the regulators have a key role in balancing the interests. Hence a more transparent, participative and collaborative process through a separate regulation is welcome. In this context it is also suggested that data and conclusions arrived by transmission planning agencies should be shared and deliberated through CERC.
- c. We support the view that the transmission system should be built to incorporate power flow irrespective of the contract duration, till the point such flows optimize the overall system cost (refer criteria for transmission planning below).
- d. The cost benefit equation needs to be outlined explicitly explaining the methodology of optimizing the system cost (considering policy objectives such as renewables) vis-à-vis the minimization of transmission charges. At the outset, when transitioning to a new methodology it will be important to consult and align stakeholders particularly the state utilities. This will require significant capacity building similar or even more extensive as conducted during PoC regulations.
- e. The process of transmission planning requires coordinated action amongst the central, state and private actors. Legal requirement may be one way to

institutionalize the requirement of information flow. However the state utilities have in the past been constrained more by lack of expertise and political factors to provide reliable and timely information. This problem may hence requires several additional or alternative strategies such as capacity building in form of a dedicated transmission and load dispatch teams, training and autonomy in functioning.

We hence request that STU/SLDCs should be legally mandated to publish their 5 and 10 year plans developed in coordination with CEA and NLDC/RLDCs. We also recommend that a part of the congestion charges should be used towards building expertise and procuring required software, analytical tools and expertise for transmission and planning organizations.

Criteria for Transmission Planning: Transmission System should be developed to a level where the cost of building incremental transmission capacity is equal to the cost of congestion. This approach will optimize the overall system cost for all participants. Under this approach the prices at different points in grid will equal the marginal cost of energy plus the cost of losses and congestion.

The above proposal is a variation of the Alternative 2 (GNA) as indicated by the Staff Paper. Under this approach, the cost of any incremental transmission capacity will be weighed explicitly against anticipated cost of congestion. So we support GNA with the mentioned modification.

If the transmission system is designed with above criteria, transmission congestion will be minimized. However it is possible that some congestion may still occur. To the extent that the transmission capacity is constrained in any part of the network, all participants should be allowed to bid for the same based on a transparent and fair auctioning system. This will ensure that the limited resources are allocated in the most efficient manner.

For allocation of transmission charges, we propose that consumers may be charged for the peaking injection/withdrawal at different nodes (at-least big generators and each distribution company should be separate nodes) with certain modifications as below. It is recommended that the transmission charges are designed in a way to minimize socialization of all costs. It is requested that the Commission may consider a market based system with auctioning/trading of transmission capacity along with pricing based on actual usage. Modifications suggested to the above:

- a. For renewable (other than solar) and hydro generators where peak injection is seasonal and based on natural resources such as wind and hydro. In such cases the tariff may be designed as one of the following three options:
 - i. Based on energy flow.
 - ii. Based on seasonal peak injection i.e. three seasons are considered and peak injection in respective season is considered for transmission charges.
 - iii. Based on annual peak MW coupled with an option to trade unused capacity.
- b. For solar plants the current policy and regulation may be continued, till there is significant development of solar across the country. Conditions such as below may be considered to decide if solar plants should be charged for transmission:
 - i. Plant above a threshold (say 1000 MW) size is being developed.
 - ii. Minimum percentage of solar (say 25%) is achieved in the same state.

Retail customers are ultimate beneficiaries of the upstream system development and responsible for payment of fair and efficient prices as determined by the market or regulatory process. This includes charges for energy, transmission system, distribution system and any incidental costs. Under the current system, generators selling in the merchant mode are required to pay for both injection as well as demand charges and recover the same through the tariff. However, generators selling under long term PPA are not required to pay the same. This practice is detrimental to development of a robust merchant market as it distorts and biases the commercial strategy. As transmission system costs are to be paid ultimately by the distribution companies/retail customers, it is requested that the method of charging for transmission capacity should be independent of mode of selling power i.e. short term/medium term/long term.

2. Connectivity (Question 1, 2 and 3):

Under the above modified GNA regime, concept of connectivity has limited relevance. Hence, we support Connectivity for short duration only (few months) for providing start-up, testing and commissioning services related to a power plant. It should be procured as and when required and paid for separately whenever procured. The connectivity under this form will not provide a right inject power into grid on commercial terms.

3. Bank Guarantee (Question 4 and 5)

Yes it is desirable to provide for protection to the transmission company against potential defaults. To ensure equity, Bank Guarantee should be provided by both injection and withdrawal customers. However the current provision providing for NPV of 12 years may be too extensive and we suggest amendments as below:

- a. Alternative forms of default protection may be considered with Bank Guarantee being one of the options. Alternative could be to escrow revenue stream from another project and
- b. The quanta of bank guarantee should be reflective of the actual losses seen historically due to stranded assets and not prospective losses as calculated by the transmission entity.
- c. If Bank Guarantee is provided and need to be encashed, the encashment should be on an annual basis equivalent to the extent of asset actually stranded calculated as a difference of actual and simulated load flow assuming the asset existed.

4. Delay in Commissioning of Plant (Question 6):

It is considered fair and rational to charge for transmission system if a generator is delayed beyond the proposed Commission date. However, it is requested that the provision should be balanced and whenever possible to alter plans based on new information it should be objectively analyzed. Following three options are proposed for consideration:

- a. Information provided before starting construction of the transmission line is started. It should be possible to allow customer to alter or withdraw.
- b. Force Majeure Conditions: Under a Force Majeure condition, a generator should be allowed to reset the date of LTA. This will be fair since the management has no control on such risks. This would entail that there is a clear understanding of what force majeure conditions are and what circumstances they can be revoked.
- c. Penalty on TRANSCO for delay: If a project is ready and is delayed due to non-availability of transmission line then it is proposed that penalty equivalent to revenue lost by a generator should be imposed on the TRANSCO for the delay. This will ensure that rewards and penalties are symmetrical and balanced between the two parties.

5. Additional Points

- a. **Transmission for Green Field Hydro Projects:** Developing green field hydro projects often entails working in areas where there is no existing transmission network. In many cases prospective planning has been done by planning entities such as CEA and Power Grid. There are two key issues related to transmission cost related to projects in far off locations:
- i. Transmission cost related to the proposed lines may be relatively high due to difficult terrain and relatively longer time required for construction.
 - ii. Relatively high uncertainty related to other projects in the basin and thus possibility of very high proportion of cost related to the development of network in these areas being allocated to the first movers. This issue presents significant risk and it is requested that the first few projects coming up ahead of others should not be required to bear unreasonably high cost related to developing high capacity transmission corridors.
- b. **Transmission Planning and Regulations for South Asia:** Neighboring countries including Nepal, Bangladesh, Sri Lanka, Bhutan and Myanmar present opportunities to optimize generation and demand by utilizing varying resources and load profiles. Development of a coordinated approach and a common market should be considered as a long term strategic objective. It is hence requested that this additional consideration may be deliberated in view of the renewed momentum towards co-operation in the South Asia region.
- c. **Non Discriminatory Open Access:** It is requested that provision related to curtailment of transmission corridor contained in Sec 15 (2) of the Open Access in inter-State Transmission Regulation 2008 may be reconsidered with a view to develop a robust market with non-discriminatory access. It is proposed that such provision, if at all desired, should be provided in a manner similar to that contained in Section 11 of the Electricity Act 2003 of giving direction to the generating companies under extraordinary circumstances. It is requested that such overriding provisions should not be used under standard operating circumstances.