

## Chapter - 6

### Conclusion and Recommendations

#### 6.1 Conclusion

Planning for transmission system in PGCIL was marked by non-preparation of an Annual Network plan, absence of any plan for augmentation of transfer capacity in the long run and mismatch in planning transmission system for evacuation of power from new generating projects.

CTU was mandated to coordinate with stake-holders like STUs and prepare a network plan based on NEP in coordination with concerned agencies. A well-defined Network Plan for information to the STUs and other stakeholders of the likely capacity addition to the transmission system was essential to serve as an effective planning and coordination tool. However, no network plan was prepared by CTU. Network plan was also required to consider the possibilities for upgradation of existing lines before laying new lines. In the absence of a network plan, a structured mechanism to assess and focus on the requirement for upgradation/re-optimisation of the existing lines before setting up new lines remained unavailable. Besides, PGCIL did not take adequate measures to upgrade the existing transmission system as suggested by CERC committees/ POSOCO which resulted in transmission constraints and high loading in some of the lines.

PGCIL has not declared its plans/ targets for augmentation of transfer capability in long term against the specific regulatory requirement of declaration of TTC for four years. In the absence of the long term declaration of TTC, there was no benchmark to assess the actual performance of PGCIL in terms of its capacity to transfer power. At the end of the 12<sup>th</sup> Five Year Plan actual TTC achieved in all the regions except WR-NR was less than even 50 *per cent* of the achievable targets as per NEP. Non-achievement of adequate TTC as per the projections in the NEP reduced the availability of margins thereby impacting short term power transactions.

Although transmission projects were required to precede commissioning of generation projects by at least six months, six out of eight transmission projects were completed after commissioning of linked generation projects. This resulted in mismatch between commissioning of generation projects and associated transmission projects. As a result, PGCIL had to make interim arrangements in respect five generation projects resulting in congestion in Chhattisgarh and adjoining areas.

Execution of transmission projects suffered delays due to delays in submission of forest proposals by PGCIL, submission of incomplete documents with the

forest proposals, time taken in land acquisition, delay in providing front/ site by PGCIL, etc.

Only two out of the 18 selected projects were completed within scheduled time while 13 were completed with delays ranging from 04 to 71 months. Anticipated delays in the remaining three projects ranged from 6 to 109 months. PGCIL also lost the opportunity of earning ₹112.51 crore during the project life towards additional Return on Equity which would have been allowed in terms of CERC Regulations by timely completion of the projects.

Project monitoring meetings both at pre-award and post award stages were not held as per prescribed intervals and no follow up actions were taken to resolve the critical issues noticed by Management in subsequent meetings. Besides, the completed lines were also not optimally utilised as even the peak power flows in 18 out of 30 selected lines remained below 40 *per cent* of their respective maximum loadability. Hence, proper monitoring mechanism was also required for assessing the utilisation of existing lines.

## **6.2 Recommendations**

Based on the Audit findings discussed in the forgoing chapters the following recommendations are made to facilitate improvement in planning and implementation of transmission projects:

1. The existing regulations may be reviewed to assess the need for modification, in order to address the requirements of Short Term Open Access.
2. CTU may prepare Annual Network Plan based on the NEP plan as per directions given by Ministry.
3. A comprehensive re-optimization study may be undertaken by an independent group (Internal technical audit team) to improve economy and efficiency in general and reliability, resilience, IR TTCs and ISTS-STU TTCs in particular.
4. CTU/ PGCIL may ensure coordinated planning and execution of inter-state transmission system with associated generation projects as well as with intra-state transmission system to avoid mismatch. PGCIL may also put in place an institutional mechanism to review and monitor the status of interconnected transmission schemes and to update transmission data files for planning software.
5. PGCIL may record efforts made to explore the possibilities of upgradation of the existing transmission lines before deciding construction of new line.
6. PGCIL may disclose on its website and monitor the key parameters of TTC over a four-year period as per the CERC regulations.

7. PGCIL may initiate advance action for detailed survey for preparing BOQ and NIT cost estimates and submit forest proposals within the stipulated time to expedite the project execution.
8. PGCIL may take steps to minimize delays in project execution due to factors which are controllable by PGCIL through effective monitoring.

New Delhi  
Dated: 30 July 2020

  
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Countersigned

New Delhi  
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