

TRANSMISSION SYSTEM DEVELOPMENT IN INDIA: ISSUES AND CHALLENGES IN PROMOTING COMPETITION



BACKGROUND

Promotion of competition in all segments of the power supply industry, including in the transmission segment, is one of the cardinal objectives of the Electricity Act, 2003. Requisite policy directions and regulatory guidelines in this regard have been provided in the National Electricity Policy (NEP) and the Tariff Policy. However, competition and private sector participation has been below expectations to some extent in the transmission segment. An objective analysis of the issues in this regard and finding out ways and means for overcoming these have assumed added importance in the present context of power system development in the country. This is especially true in the light of (a) the large scale expansion of transmission system required in the coming years; (b) the capital intensive nature of the projects necessitating mobilization of additional finances outside the public sector; and (c) the key role transmission has to play in the successful implementation of the Country's energy transition program, including for successful integration of RE projects. The fact that a robust transmission system is also a basic pre-requisite for realising our Prime Minister's vision of "One Sun, One World, One Grid" further adds to the importance of the topic. Keeping these in view, this note has tried to briefly review how competition in transmission has evolved in the country over the years and the issues that merit consideration (including the challenges that have arisen following COVID-19), which could set the context for discussing on how competition and private sector participation can be enhanced in the transmission sector.

POLICY AND REGULATORY PROVISIONS

NEP, 2005 has provided the policy guidelines for promoting competition in transmission. Some of the relevant excerpts from this policy document are given below.

- 5.3.1** *The Transmission System requires adequate and timely investments and also efficient and coordinated action to develop a robust and integrated power system for the country*
- 5.3.2** *Keeping in view the massive increase planned in generation and also for development of power market, there is need for adequately augmenting transmission capacity.*
- 5.3.10** *Special mechanisms would be created to encourage private investment in transmission sector so that sufficient investments are made for achieving the objective of demand to be fully met by 2012.*
- 5.8.1** *Considering the magnitude of the expansion of the sector required, a sizeable part of the investments will also need to be brought in from the private sector¹.*

These provisions also meant that the Government could exclude some projects from competitive bidding based on the criteria spelt out.

The Tariff Policy of 2006 has provided the regulatory provisions in this regard. In the amendment to this Policy (notified in 2011), it has been further emphasised that

“while all future inter-state transmission projects shall, ordinarily, be developed through competitive bidding process, the Central Government may give exemption from competitive bidding for (a) specific category of projects of strategic importance, technical up-gradation, etc. or (b) works required to be done to cater to an urgent situation on a case to case basis”.

The revised Tariff Policy notified by the Ministry of Power (MoP) in January 2016 has also emphasised this point¹.

MoP vide Order dated, the 13th April, 2018 constituted an Empowered Committee on Transmission (ECT) chaired by the Secretary, MoP, for deciding which projects could be exempted from the competitive bidding route (as provided for in the NEP) and which should be implemented through the Tariff Based Competitive Bidding (TBCB), based on recommendations of the National Committee on Transmission (NCT) chaired by Chairperson of Central Electricity Authority (CEA). The ECT has been dissolved in 2019 after the reconstitution of NCT, which will be chaired by the Chairperson, CEA; vide MoP Office Order dated 4th November 2019 (table 1). The recommendations of the NCT are henceforth to be forwarded to MoP for final decision.

Table 1: Composition of National Committee on Transmission

1..	Chairperson, Central Electricity Authority (CEA)	Chairman
2.	Member (Power System), CEA	Member
3.	Member (Economic & Commercial), CEA	Member
4.	Joint Secretary level officer looking after transmission in M/o New & Renewable Energy, Govt. of India@	Member
5.	Director (Trans), M/o Power, Govt. of India	Member
6.	Chief Operating Officer, Central Transmission Utility (POWERGRID)	Member
7.	Advisor, NITI Aayog#	Member
8.	Two Experts from Power Sector *	Members
9.	Chief Engineer (from Power System Wing), CEA#	Member Secretary

@ To be nominated by Secretary (MNRE)

To be nominated by NITI Aayog/ CEA

* To be nominated by the Ministry of Power, Govt. of India from time to time, for a maximum period of two years from the date of their nomination.

¹ Excerpts from Tariff Policy (2016): “Tariff of all new generation and transmission projects of company owned or controlled by the Central Government shall continue to be determined on the basis of competitive bidding as per the Tariff Policy notified on 6th January, 2006 unless otherwise specified by the Central Government on case to case basis. Further, intra-state transmission projects shall be developed by State Government through competitive bidding process for projects costing above a threshold limit which shall be decided by the SERCs.”

Guidelines of MoP also provide for constituting Bid Process Coordinators (BPC), who shall be responsible for coordinating the bid process as per TBCB². The BPCs have the option to either adopt either a two-stage process of bidding (Request for Qualification (RFQ) first and Request for Proposal (RFP) for those who qualify) or a single stage (two envelope bid process combining the RFP and RFQ) prepared on the basis of the Standard Bidding Document (SBD) (notified by MoP³). The guidelines also provide for the constitution of Bid Evaluation Committees (BEC)⁴ by the BPC. BECs are responsible for evaluation of bids as per guidelines notified by MoP for TBCB projects. The suggested timeline for bid processing is given in table 2.

The process followed and the recommendations made by the BECs would be subject to further examination by the CERC. Further, BPCs also create Special Purpose Vehicles (SPV)⁵ for each project. Central Transmission Utility (CTU)/ SPV funds the formulation of projects and preparation of project profile. The expenditure incurred in this regard by CTU/SPV as the case may be, is recovered from the selected bidder that implements the project. The selected bidder also enters into a Transmission Service Agreement (TSA) with the beneficiaries for development, operation and maintenance of the project.

After selection and issue of LOI from the BPC, the selected bidder is required to acquire the SPV created for the project and obtain license from the appropriate Commission to become the Transmission Service Provider (TSP) and sign the TSA⁶. In so far as of intra-state projects are concerned, MoP; vide its Order dated 2 May 2012 has notified that *“the State Governments may adopt these guidelines and may constitute similar committees for facilitation of transmission projects within the State. The States also have the option to use Viability Gap Funding (VGF) based Model Transmission Agreement (MTA) document of Planning Commission for development of Transmission System in their States under Public Private Partnership (PPP) mode.”*

PROGRESS ACHIEVED

An analysis based on secondary research and data from various public sources including CEA and ECT/ NCT minutes shows that out of a total number of 151 transmission projects awarded since 2011, only 62 projects (around 41%) were awarded through TBCB route (6 were subsequently scrapped), while 89 projects were awarded under cost-plus/ regulated tariff mechanism (RTM) route (Figure 1). Thus, in overall terms, projects awarded to private sector players till now have been of the order of 28% only.

Table 2: Prevailing & Suggested Bidding Timelines in SBD

Event	Prevailing timeline		Suggested timeline in the draft SBD of Feb 2020
	Two stage bidding	Single stage bidding	
Publication of Gazette notification for BPCs	–	–	Zero Date
Publication of RfQ	Zero Date	–	–
Submission of response to RfQ	30 days	–	–
Shortlisting based on responses and issuance of RfP	60 days	0 Date	2 days
Bid clarification, conference, final clarification and revision of RfP	85 days	60 days	40 days
Technical and price bid submission	120 days	120 days	65 days
E-reverse bidding after opening of initial offer	–	–	75 days
Shortlisting of Bidder and issuance of Lol	135 days	150 days	8 days post close of e-reverse bidding process
Signing of agreement	145 days	180 days	10 days post issuance of Lol

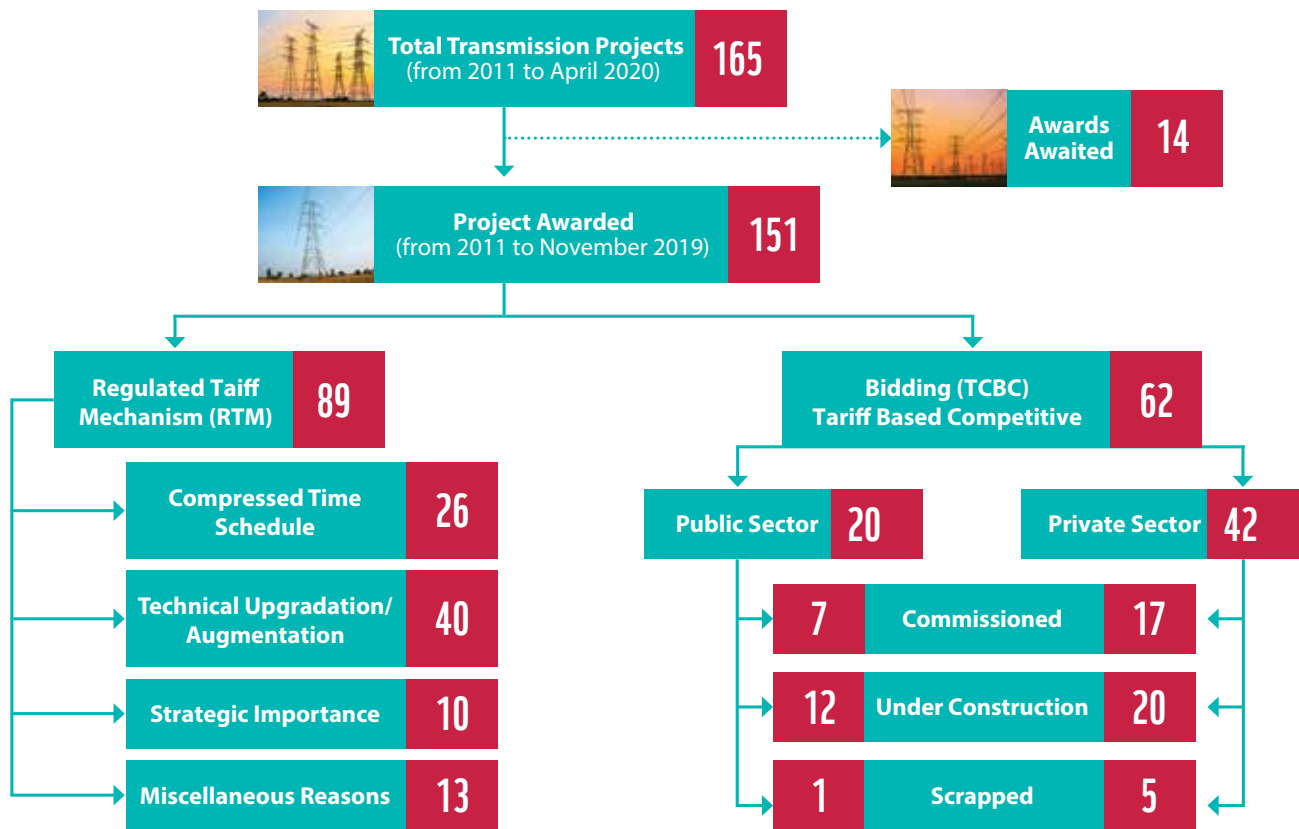
² The two BPCs at present are RECTPCL (Rural Electricity Corporation Transmission Projects Company Limited, a 100% subsidiary of REC) and PFCCCL (Power Finance Corporation Consulting Limited, a 100% subsidiary of PFC).

³ SBDs are amended from time to time. A draft amendment has been notified in February, 2020.

⁴ BEC should have at least one member from CEA and not less than two representatives from the concerned Regional Power Committees and at least one representative from every concerned RPC and one independent member having expertise in financial matter/bid evaluation.

⁵ Creation of SPVs will help to show the financials separately under the SEBI and Company Act rules.

⁶ In case of any dispute regarding TSA or tariff, the same will be subject to jurisdiction of the appropriate Regulatory Commission under the provisions of the Electricity Act 2003.



Source: CEA

Figure 1: Birds eye view of new transmission projects (2011-2020): Status as on April 2020

An analysis of the resultant tariffs of projects awarded in recent years shows that projects awarded through the TBCB route can help to bring down project costs. A recent report by CII⁷ titled “New Age Power Systems for 21st Century India: Challenges, Solutions and Opportunities” based on an analysis of a total of 101 transmission projects (including 58 RTM and 43 TBCB projects) shows that “TBCB projects typically offer ~30% lower tariff than same project awarded on RTM basis”.

ISSUES & CHALLENGES

The following are some of the key issues and challenges presently being experienced in going ahead with the projects under TBCB route.

1. Planning for transmission system associated with renewable energy (RE) projects

As part of greening the sector India has planned to add 175 GW RE projects by 2022 (to be scaled up to 450 GW in due course). As RE projects come up much faster than conventional generation projects, the gestation period for associated transmission systems would be much shorter than the time normally required. This compressed time requirement is at times seen as a barrier for allotting projects

under the TBCB route, as it involves additional time for the bid process. Improved coordination between RE projects’ development and associated transmission planning can help mitigate the concerns in this regard.

With the announcement of a committee for preparation of the National Electricity Plan for the period of 2022 to 2027, it is important to decide phasing of generation and transmission systems in sync with each other. This committee may also be a forum for industry consultation to be done in a more detailed way, perhaps with representation of an association body.

2. Delay in obtaining statutory clearances

Delay in obtaining statutory clearances leading to delays in project execution is another major concern in timely commissioning of projects. In fact, this is a major challenge in case the transmission lines have to go through difficult terrains. Also, it has been noticed that sometimes a State Government notifies a higher RoW compensation after the prescribed cut-off date in the bid documents. This could adversely impact the finances of the developer. The prevailing stress in the financial sector due to COVID-19 would also pose challenges to developers in accessing market for their financing needs.

⁷ <https://cii.in/PublicationDetail.aspx?>

Exploring possibilities for fast tracking of statutory clearances and ensuring sanctity of contract assume importance in this context. This could also promote “ease of doing business”. In this context it would also be important to remove barriers, if any, for bringing in technological innovations by the developer.

3. Fixed date for commissioning in tenders

In the recent tenders, especially ones associated with Green Energy Corridor, the scheduled commissioning date is hard-coded. As a result of unforeseen situations like the COVID-19 impact or delays in acquisition of SPV, transmission developers may find it difficult to commission the system in the scheduled time and incur penalties on this count. This could mean higher risk perception for the developers and lead to higher bid costs.

4. Risk of recovery of transmission charges

Another issue relates to recovery of transmission charges where the transmission developer has completed his part of the project on schedule; but the generation plant (from which transmission line is meant to evacuate power) is not ready, or the downstream connectivity (from which power would flow to the consumers) is not available. Although the basic principle in such cases is that the defaulting party has to pay (this has also been clearly spelt out in CERC Regulations), disputes have been arising in this context, as seen from different CERC orders. The likelihood of stranded/ delayed payments on this count and prolonged litigation adds to the risk perception on part of developers. There is a need in this context to look at ways on how to ensure that situations such as this are minimised.

5. Provisions related to competition in the Tariff Policy

The Tariff Policy is under review at present. It has come out in some media articles and industry forums that the provisions on competition are being maintained. As the benefits of promoting competition are well known, it is important that such provisions are only strengthened further.

6. Inter-continental grids – One Sun One World One Grid vision of PM Shri Modi

The task of developing a vision, implementation plan, road map, and institutional framework for implementing “One Sun One World One Grid” has been taken up by MNRE. While the vision document and road map gets developed in next few months, it would be imperative to ensure that the development of such grids is done in the most cost-efficient manner – which has been done very successfully by adopting the PPP model. This mode of infrastructure development has been in place for a number of years, and has yielded unparalleled savings in tariffs for the end consumers. Development of inter-continental grids via PPP route would not only enable access to previously unreachable energy resources, but also safeguard consumer interest by making sure that the delivery of power is done in the most cost-efficient way possible.

It is noted that the advisory issued by CERC to MoP on 22nd June 2020 on ‘development of transmission capacity in an efficient and economical manner under TBCB route’ (vide letter No. ENGG-21/1/2019-CERC dated 22nd June, 2020) has also addressed some of the issues brought out at 1, 2 and 3 above.

POINTS FOR DISCUSSION

The above analysis has brought out the need for a pragmatic review of competition has in transmission sector can be enhanced. This has assumed added importance especially in the context of large-scale expansion of RE projects planned. The following points merit detailed deliberations in this context.

1. What could be done to ensure more numbers of projects are allotted through the TBCB route?
2. How to improve “ease of doing business”? Will alternate business models other than BOOM be helpful in this regard?
3. How to further streamline the statutory approvals/clearance procedures?
4. Does the present composition of NCT ensure a level-playing field?
5. What are the special challenges that have come up due to COVID-19? What steps are needed to address these?
6. How to improve competition in respect of intra-state transmission projects?
7. Is there any clarity required in the provisions regarding to penalty in the event of commissioning delay?