

**BEFORE THE HARYANA ELECTRICITY REGULATORY COMMISSION
BAYS No. 33-36, SECTOR-4, PANCHKULA- 134112, HARYANA**

CASE NO: HERC / PRO- 62 of 2020

DATE OF HEARING : 15.04.2021
DATE OF ORDER : 26.04.2021

IN THE MATTER OF:

Staff Paper on introduction of Competitive Bidding based Transmission Projects and fixing benchmark project cost thereto.

Petitioner

1. Suo - Motu

Interveners

2. Haryana Vidyut Prasaran Nigam Ltd (HVPNL), Panchkula
3. Haryana Power Purchase Centre (HPPC), Panchkula
4. Adani Transmission Ltd.
5. Prayas (Energy Group)
6. Electric Power Transmission Association (EPTA)

Present on behalf of the Interveners through Video Conferencing

1. Shri T.L. Satyaprakash, MD/HVPNL
2. Shri D.P. Tiwari, Dir / Fin, HVPNL
3. Shri Girish Deveshwar, EPTA
4. Shri A. Sahney, Adani Transmission Ltd.
5. Shri. Gaurav Gupta, XEN / HPPC

QUORUM

**Shri Pravindra Singh Chauhan,
Shri Naresh Sardana,**

**Member
Member**

ORDER

1.0 Statutory Provisions

The Government of India under the enabling provisions of Section 3 (2) of the Electricity Act, 2003 issued the National Tariff Policy vide Ministry of Power, Government of India v Resolution No. 23/2/2005-R&R (Vol-IX) dated 28th January, 2016. The policy provides development of intra-state transmission projects costing above a threshold limit through tariff based

competitive bidding. Hence, the SERCs are under statutory obligation to determine such threshold limit of the project cost. The relevant provision, as mentioned in clause no 5.3 of the National Tariff Policy, is as under: -

*“5.3 The 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** (emphasis added) shall be developed by State Government through competitive bidding process for projects costing above **a threshold limit which shall be decided by the SERCs**” (emphasis added).*

2.2 Electricity Act, 2003 – The objective of the Electricity Act, 2003 (Act No. 36 of 2003) as enshrined in its preamble states that, “An act to consolidate the laws relating to generation, transmission, distribution, trading and use of electricity and generally taking measures conducive to development of development of electricity industry, **promoting competition therein (emphasis added)**, protecting interest of consumers.....”

2.3 National Electricity Policy -

Section 5.3.10 of National Electricity Policy provides that 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.

Section 5.8.9 provides that **Role of private participation** in generation, transmission and distribution would become increasingly critical in view of the rapidly growing investment needs of the sector.

2.4 The Commission in its Order dated 21st May, 2020 in the matter of True up of the AGGREGATE REVENUE REQUIREMENT (ARR) FOR TRANSMISSION BUSINESS AND STATE LOAD DISPATCH CENTRE (SLDC) FOR THE FY 2018-19, ANNUAL (MID-YEAR) PERFORMANCE REVIEW FOR FY 2019-20, DETERMINATION OF ARR FOR THE TRANSMISSION BUSINESS AND SLDC FOR THE CONTROL PERIOD FY 2020-21 TO FY 2024-25 AND THE TRANSMISSION TARIFF AND SLDC CHARGES FOR THE FY 2020-21 (CASE NO: HERC/PRO-66OF 2019), observed as under: -

*“5. i) Tariff Based Competitive Bidding: The Commission does not agree with the contention of the Petitioner i.e. HVPNL that this section is not under the purview of HVPNL’s Petition. The Commission, on several occasion in its ARR / Tariff Order(s), has pointed out the significant gap in execution, both financial and physical, of Capital Works by the Licensee. Hence, in Order to optimize investments in the Transmission System with associated quantified benefits, it would be worthwhile to explore the competitive bidding options including PPP model implemented in Haryana in the power sector for the first time in the country. **Resultantly, the Commission, before taking a view on the suggestions of the intervener, may prepare a staff paper in the matter for consultation with the Stakeholders before taking a final view (emphasis added)**”.*

2.0 Staff Paper – In accordance with the aforesaid Order, a staff paper for public consultation was prepared. The same is reproduced below:

Staff Paper for inviting comments / suggestions on Introduction of Competitive Bidding Based Transmission Projects & fixing a benchmark project cost thereto.

Introduction

1.1 HVPN, the Transmission Licensee in Haryana is also, as per Haryana Government notification, the State Transmission Utility (STU). As per the terms of License viz. “The Haryana Transmission Licence (Licence no. 1 of 1999, 1st amendment dated 11th January, 2013) issued by the Commission, the licensed area is the entire State of Haryana.

As on 31.05.2020, the Infrastructure of Transmission System includes 437 sub-stations of voltage ratio ranging from 66 kV to 800 kV with an aggregate capacity of 77936.5 MVA and line length of 15580.518 Ckt KM.

1.2 In addition to the above, the Commission has also issued line specific, as distinct from area specific, Transmission License to Jhajjar KT Transco. The transmission infrastructure included construction of two 400 kV sub-station and 400 kV double circuit line of 100 KM for power evacuation from 2x660 MW Mahatma Gandhi TPS at Jhajjar (Haryana). The said project has been implemented on Design, Build, Finance, Operate and Transfer (DBFOT) on expiry of the concession period. This was first of its kind project in the Power Sector on the Public Private Partnership (PPP) mode. The successful bidder quoting lowest grant was selected and the tariff (Unitary Charges) was adopted by the Commission under Section 63 of the Electricity Act, 2003.

2. Statutory Provisions

2.1 The Government of India under the enabling provisions of Section 3 (2) of the Electricity Act, 2003 issued the National Tariff Policy issued by the Ministry of Power, Government of India vide its Resolution No. 23/2/2005-R&R (Vol-IX) dated 28th January, 2016 provides development of intra-state transmission projects costing above a threshold limit through tariff based competitive bidding. Hence, the SERCs are under statutory obligation to determine such threshold limit of the project cost. The relevant provision as mentioned in clause no 5.3 of the National Tariff Policy is as under: -

“5.3 The 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** (emphasis added) shall be developed by State Government through competitive bidding process for projects costing above **a threshold limit which shall be decided by the SERCs**” (emphasis added).

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2.3 **Commission's Order**- The Commission in its Order dated 21st May, 2020 in the matter of True up of the AGGREGATE REVENUE REQUIREMENT (ARR) FOR TRANSMISSION BUSINESS AND STATE LOAD DISPATCH CENTRE (SLDC) FOR THE FY 2018-19, ANNUAL (MID-YEAR) PERFORMANCE REVIEW FOR FY 2019-20, DETERMINATION OF ARR FOR THE TRANSMISSION BUSINESS AND SLDC FOR THE CONTROL PERIOD FY 2020-21 TO FY 2024-25 AND THE TRANSMISSION TARIFF AND SLDC CHARGES FOR THE FY 2020-21 (CASE NO: HERC/PRO-66OF 2019), observed as under: -

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*it would be worthwhile to explore the competitive bidding options including PPP model implemented in Haryana in the power sector for the first time in the country. **Resultantly, the Commission, before taking a view on the suggestions of the intervener, may prepare a staff paper in the matter for consultation with the Stakeholders before taking a final view (emphasis added)***".

2.4 National Electricity Policy -

Section 5.3.10 of National Electricity Policy provides that 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.

Section 5.8.9 provides that **Role of private participation** in generation, transmission and distribution would become increasingly critical in view of the rapidly growing investment needs of the sector.

In view of the above there exist sufficient legal base for the Commission to take the process forward for making enabling provisions for the implementation of tariff based competitive bidding for the Transmission projects involving Capex threshold limit to be decided by the Commission.

3. Need and Rationale: As per the existing practice in Haryana, all Transmission Projects / State Transmission Utilities as well as SLDC are being implemented either departmentally or on EPC basis. The CAPEX for such project(s) is approved by the Commission and interest cost as well as return on equity component is recovered through Transmission Tariff and SLDC Charges. This CAPEX based model (Departmentally / EPC) for undertaking the projects of capital nature, upfront warrants budgetary allocation with equity support from the State Government and term loans from Lending Institutions. It has been seen from the past experience that either due to paucity of funds, delay in tie up of funds from the lending agency as well as procedural delays due to getting various approvals and clearances from the Board as well as State Government, there are physical as well as financial slippages in the implementation of the projects. Additionally, the delays are also on account of selection of vendors, quality of output, cost over-run and at times issues of conflict of interest. Over the years the outlays required for larger size projects in the Transmission System has also strained the resources available to the Transmission Licensee / STU including support from the State Government.

3.1 The above concerns can be adequately addressed in case the comparatively larger size projects are implemented by project developers through competitive bidding route including Private Public Partnership mode. Such a mechanism not only attract private investment in Haryana Power Sector bring in its trail managerial / operational efficiency, mitigating project risk and technology transfer as well as other cascading economic benefits.

4. Experience of Other States in India: - In the public hearing held on the ARR / Tariff Petition of HVPNL / STU, detailed presentation was made on the experience of different State / Projects regarding the competitive advantage of project development through competitive bidding route. The same is briefly set out below: -

Project	Winning Bidder	Project Type	Revised Cost (Rs. Crore)	Winning Tariff (Rs. Crore)	Cost Plus Tariff (Rs. Crore)	Reduction from Cost Plus Tariff (%)
WRSS 21 Part A	Adani	ISTS	1090	95	153	38%
WRSS 21 Part B	Sterlite	ISTS	2003	179	280	36%
Bhuj Dwarka Lakadiya	Adani	ISTS	1053	83	147	43%
Bhuj II	PGCIL	ISTS	1409	124	197	37%
Jam Khambaliya	Adani	ISTS	394	34	55	39%
Ajmer Phagi	PGCIL	ISTS	872	61	122	50%
Raj SEZ Part B (Fth-Bhadia)	PGCIL	ISTS	1186	72	166	57%
Rajasthan SEZ Part C	PGCIL	ISTS	1448	122	203	40%
Rajasthan SEZ Part D	Adani	ISTS	1631	100	228	56%
WR-NER	Sterlite	ISTS	1223			
Udupi-Kasargods	Sterlite	ISTS	855	85	106	20%
MP-Guna and Bhind	PGCIL	InSTS	900	69	126	45%
UP-Rampur - Sambhal	PGCIL	InSTS	910	103	127	19%
UP-Meerut - Sambhavi	PGCIL	InSTS	1130	116	158	27%
UP-Jawaharpur	PGCIL	InSTS	600	54	84	36%
UP - Obra	Adani	InSTS	1100	84	154	45%
UP - Ghatampur	Adani	InSTS	2200	196	308	36%

It is evident from the table that vis-à-vis cost-plus tariff determined by the appropriate Commission, the competitive bidding route yielded a reduction ranging from 20% to 57%. This itself justifies the rationale for development of transmission projects, above a threshold limit, through competitive bidding route. In such cases the existing transmission licensee / STU can also participate. Wherein, the tariff discovered can be adopted by the Commission under Section 63 of the Act and shall not be subjected to re-determination under Section 62 of the Act. It is therefore evident that transmission projects executed through competitive bidding route may yield comparative lower tariff, such execution of projects are considered to be more transparent, imposes lower burden on the State Govt. besides attracting private capital and latest technology in the sector and investment risks to the State-owned STU is mitigated as the same is shared by the private developers.

5. Operational Framework – *Having dwelt at length on the legal and economic issues, the Commission will have to decide benchmark project cost above which development of transmission projects through complete bidding route shall be mandatory.*

5.1 To begin with, the benchmark project cost notified by a few SERCs was perused. A summary of the same is presented below: -

5.2 Bihar Electricity Regulatory Commission (BERC) – *The Hon'ble BERC vide notification dated 23th December 2019 determined threshold limit Rs. 100 Crore above which all new projects and augmentation of intrastate projects shall be developed through Tariff Based Competitive Bidding (TBCB) in accordance with the guidelines issued by the State Transmission Utility. The State Transmission Utility shall frame the said guidelines within three months from the issue of this notification and issue the same after approval of the Bihar Electricity Regulatory Commission.*

5.3 Maharashtra Electricity Regulatory Commission (MERC) – *The Hon'ble MERC in its Order dated 12th September, 2018 (Case No. 204 of 2017) observed as under: -*

“7.12.9 Considering above, the Commission noted that STU has observed that there is an inordinate delay in completion of this scheme and suggested to take up this scheme under Tariff Based Competitive Bidding (TBCB) route. The Commission is concerned about the approach adopted by TPC-T for execution of the scheme. This scheme is being treated as deemed closed by the Commission and the Commission directs STU to take a review of such critical schemes and propose a way forward. STU is directed to submit its report to the Commission on review of TPC-T's proposed 400 kV Vikhroli Receiving Station within a month”.

5.4 Uttarakhand Electricity Regulatory Commission (UERC): In its Order dated 18th April, 2020, the Hon'ble Commission on the issue of Tariff Based Competitive Bidding observed as under: -

“2.3.3 Commission's Views

The Commission has taken note of the suggestion and will take up the matter of specifying a threshold limit for projects to be developed under TBCB route through separate process”.

5.5 Punjab State Electricity Regulatory Commission (PSERC): The Hon'ble PSERC, vide notification dated 5th November, 2018, determined the threshold limit as under: -

“No. PSERC/Secy/132.-In accordance with para 5.3 of National Tariff Policy, the Punjab State Electricity Regulatory Commission hereby decides that intra-state transmission projects costing more than Rs. 50 Crore shall be developed by State Govt./STU through tariff based competitive bidding”.

It is seen that quite a few SERCs have found merit in developing transmission projects through competitive bidding route and have also notified the cost above which the transmission projects have to follow competitive bidding route.

6.0 Way Forward:

It is observed that in the last few years the Commission has approved Capital Expenditure for various components of Transmission Projects in the range of Rs. 718 Crore per annum to Rs. 925 Crore in the FY 2020-21 to be developed / executed by HVPNL / STU. The work wise expenditure for the FY 2020-21 to the FY 2024-25 submitted by the STU mostly comprises Substations, Lines, IT, Land and Miscellaneous works of capital nature. However, the main expenses envisaged pertain to Sub-station and Lines. The expenses envisaged on Substations by the STU is Rs. 790.98 Crore in the FY 2019-20 and tapers down to Rs. 280.14 Crore in the FY 2024-25. Similarly, the expenses envisaged ON Lines is Rs. 378.11 Crore in the FY 2019-20 which increases to Rs. 5093.33 Crore in the FY 2020-21 and tapers down to Rs. 332.73 Crore in the FY 2023-24.

It is observed that the transmission system including energy handled varies from one state to the other. Hence, the quantum of investments required going forward shall also vary in line with the geographical area and load growth in different State.

Given the above scenario, the stakeholders / interested persons are invited to submit their comments / suggestions etc. regarding the threshold limit above which the transmission projects shall necessarily be developed by way of competitive bidding route”.

3.0 The ibid staff paper, for consultation, was placed on the official website of the Commission. Further, public notice in Indian Express (English) Haryana Edition and Dainik Tribune (Hindi), Haryana Edition dated 14.08.2020 was issued inviting written comments / objections from the General Public / stakeholders.

4.0 Comments / objections / suggestions were received from the following persons / parties.

- i. Haryana Vidyut Prasaran Nigam (HVPNL), Panchkula
- ii. Haryana Power Purchase Centre (HPPC), Panchkula
- iii. Adani Transmission Ltd.
- iv. Electric Power Transmission Association (EPTA)
- v. Prayas (Energy Group).

The objections / comments filed in the matter is briefly set out as under: -

Adani Transmission Ltd.

With reference to subject, we would like to thank the Hon'ble Commission for coming up with the “Staff Paper for inviting comments / suggestions on Introduction of Competitive Bidding Based Transmission Projects & fixing a benchmark project cost” for public consultation.

This is in line with the Tariff Policy 2016; extract of Article 5.3 of the policy is reproduced below: “The 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.”

In this context, we appreciate that HERC has taken up the task of not only setting threshold limit but also creating enabling regulatory framework.

That all the projects including intra-state and inter-state projects should be developed on competitive bidding mode so that the end customer can accrue the benefits of lower tariff. We have gone through the staff paper and have noted the advantages listed for the TBCB model and would like to suggest some more pointers as below:

- a. Optimised usage of funds; improving the credit rating/outlook of HVPNL and thereby reducing the overall finance cost.
- b. Frees up resources for other development expenditure i.e. Government need not invest their capital upfront in the Transmission projects and it can be utilized for other Social Welfare schemes.
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- c. Reduced O&M expenses and enhanced system reliability through modern O&M techniques resulting in lower power tariffs.
- d. Reduced overall cost of ownership, due to efficient project and financial management practices in the private sector.
- e. Most of the projects built under TBCB route have been completed ahead of time, as the delays associated with RoW, Land acquisition etc. are mitigated to a large extent due to the flexibility available to such projects in negotiating with the land owners, which otherwise may not be possible for Government owned Transmission utilities.
- f. Under the TBCB model, all the risks associated with the project during the development and construction stages are to the account of Private Developer and tariff is not to be paid till the project achieves commercial operation.
- g. There are more than 70 projects that have already been successfully awarded under TBCB model in both Central as well as State sector.

h. Documents for TBCB model and the process for selection of developers have been standardised by MoP and are available on their website.

Many inter-state and now intra-state projects have been successfully awarded/commissioned through TBCB process in the transmission space and most of them are completed on time. MoP has already standardised documents and process for selection of developers through TBCB model.

To kick-start the process, the threshold limit of project can be set at INR 50 Cr by the Hon'ble Commission. Further, this limit should also be reduced and removed in a time bound manner. We are confident that projects in Haryana State would get overwhelming participation from the incumbents as well as new players from the Private sector.

Therefore, we request the Hon'ble Commission to **notify the threshold limit of INR 50 Cr** which will see long term investment in the state of Haryana and benefit end consumers (Emphasis added).

EPTA:

We congratulate the Hon'ble Commission on issuing the Staff Paper and supporting the initiative for introduction of Tariff Based Competitive Bidding in Transmission in the State.

1. Tariff Based Competitive Bidding (TBCB) in Transmission in Centre/ other States - Tariff Based Competitive Bidding route is a time-tested route for development of transmission projects. Since its introduction in 2006, and with the first project bid out in 2007-08, there are 55 projects for Inter-State Transmission System (ISTS) which have been awarded under TBCB. At present, there are 14 ISTS projects under tendering by the Bid Process Coordinators (RECTPCL and PFCCL). Recognising the benefits of TBCB, many States such as Rajasthan, Maharashtra, Madhya Pradesh, Uttar Pradesh, and Jharkhand have also adopted the TBCB route for development of their Intra-State Transmission Systems (InSTS). The significant tariff savings achieved in the recent ISTS and InSTS projects have already been recognised and quoted by the Hon'ble Commission in the staff paper.

2. Threshold Limit (benchmark project cost) determination by other State Regulatory Commissions.

As the Hon'ble Commission has rightly noted, many State Electricity Regulators have recognised the benefits of the TBCB model, and have determined or have initiated the process for determining a Threshold Limit above which all new and augmentation projects for development of intra-state transmission system shall be done under TBCB route only. Few others have taken a policy decision to develop InSTS projects under the TBCB route.

The benefits of competition, which have been noted in the Staff Paper, include addressal of physical and financial slippages owing to paucity of funds, delays in tie up with lending agency, procedural delays in approvals and clearances. There are some additional points which merit consideration:

- a) In a competitive process open to private participation and investments, the State Government need not invest any capital in the projects, which provides an opportunity to the State to save this capital and reallocate /utilise it for social welfare schemes or development of other critical infrastructure, which lacks private sector interest.
- b) Under the TBCB model risks associated with the project during the development and construction stages are to the account of the Developer. Here, no tariff payments are to be made till the project achieves commercial operation. That means, the payout starts only once the project is actually operational/put-to-use.
- c) Most of the projects built under TBCB model have been completed ahead of time, as the delays associated with Right of Way, Land Acquisition, etc. are mitigated to a large extent due to the flexibility available with such projects in negotiating with the land owners, which otherwise may not be possible for Government authorities.

4. Suggestion on value of threshold limit (benchmark project cost) fixation

As noted by the Hon'ble Commission, Rajasthan Electricity Regulatory Commission (RERC) and Bihar Electricity Regulatory Commission (BERC) have decided on Rs 100 Cr threshold limit, while Punjab State Electricity Regulatory Commission (PSERC) has notified a Rs 50 Cr threshold limit, above which projects need to be awarded for development under TBCB.

It is submitted that the Hon'ble Commission may consider **fixing the threshold limit (benchmark project cost) as Rs 100 Cr,(emphasis added)** above which all new and augmentation intra-state transmission projects should be developed through TBCB only. A Rs 100 Cr limit:

- provides sufficient comfort to investors to enable financing of projects, as opposed to a smaller sized stand-alone project.
- provides scale for implementation and O&M setup, which for a smaller size project may not be cost effective as the principle of economies of scale kicks-in with larger projects
- provides for packaging of transmission schemes to achieve tariff efficiencies. This is covered in more detail in the following section.
- ensures widespread participation of big & small players and gives chance to local entrepreneurs. This would ensure increased competition and optimal tariff discovery.
- gives sufficient room to HVPNL to go about developing critical and urgent new/upgradation capital works under the cost-plus route.

5. Implementing Competitive Bidding in Transmission in the State:

It is submitted that certain critical aspects should be considered for implementation of TBCB model in the State.

a) Need for Coordinated Planning and Packaging of Schemes-

Looking at the details of the transmission schemes/ works submitted by HVPNL in its capex plan petition for FY 2019-20, it is observed that HVPNL tenders out individual work contracts pertaining to construction, augmentation and R&M of sub-stations, line bays, transformer bays, transmission line, reconductoring etc. This entails various small tenders of low value, a large number of which could be pooled together as complete transmission schemes/ projects to explore economies of scale and these packaged transmission schemes/ projects can then be developed efficiently under TBCB mode. Few individual schemes that can be clubbed together as a packaged project are provided below. If such transmission schemes/ projects are awarded/ planned as a composite scheme comprising of complete scope at both the interconnection points including upstream/ downstream elements and their associated bays, there is significant scope for gaining efficiencies in procurement and construction resulting in lower tariffs to the end consumers. It is also suggested that projects of 220 kV level and above shall be mandated for development under TBCB route, as higher capital investment requires the least cost approach.

The Central Electricity Regulatory Commission (CERC) in its Advisory dated 14.10.2016 to the Ministry of Power (MoP) has advised that “in case of new transmission network, splitting the network into components and award of the project through TBCB complicates the execution of project. Therefore, it is advisable to identify the entire network for development through TBCB, instead of comparatively smaller elements, commissioning of which depends upon commissioning of all upstream/ downstream elements.”

Hence, it is imperative that for efficient and economical development of transmission capacity in the State under TBCB, the transmission schemes, new and augmentation, be planned/ designed and bid out with corresponding upstream and downstream elements. This would also obviate coordination and interface issues. The mechanism also ensures that the individual elements don't remain stranded, due to coordination issues and/or delay of other elements. In case of a comprehensive end-to-end transmission scheme, the commissioned projects serve a specific purpose when operational and is billed to consumers only when it is actually put to use.

b) Utilisation of Standard Bidding Documents issued by Ministry of Power

Documents for undertaking competitive bidding in transmission, and the process for selection of developers have been standardised by the Ministry of Power. These documents have been utilised in the ISTS bidding process extensively, as well as in multiple InSTS bids across States. The model documents can be suitably modified as per requirements of the State, and after necessary approval from the Commission be used for awarding projects in the State.

c) Formulation of Guidelines for implementation of the Threshold Limit (benchmark project cost) fixation For implementing transmission projects on TBCB mode, as well as to ensure that this forward-looking initiative of the Hon'ble Commission is followed in spirit, it would be necessary to lay down the guidelines which need to be followed by the STU. The aspects that need to be covered in the guidelines, with suggested language that can be used for the guidelines are as follows:

- The Commission has notified Haryana Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff for Generation, Transmission, Wheeling and Distribution & Retail Supply under Multi Year Tariff Framework) Regulations, 2019 which lays down the procedure to be followed by State Transmission Utility (STU) for assessment of transmission infrastructure requirements, which comprises of, but is not limited to, infrastructure requirement commensurate with load growth forecast and demand projections, capital

investment plan, Cost-benefit analysis and payback period, financing plan and physical targets.

- The capital investment plan so prepared will be applicable for the state of Haryana. Such Capital Investment Plan shall contain the intra-state transmission schemes identified to meet the forecasted demand and supply and system strengthening requirements of the State.
- STU, in coordination with the stakeholders viz. the transmission licensee(s), shall adhere to the Hon'ble Central Electricity Regulatory Commission's advisory dated 14th October 2016 to Ministry of Power, para 12(a), which advises that "splitting the network into components and award of the project through TBCB complicates the execution of project. Therefore, it is advisable to identify the entire network for development through TBCB, instead of comparatively smaller elements, commissioning of which depends upon commissioning of all upstream/ downstream elements."
- Accordingly, the STU shall submit for Commission's approval, complete intra-state transmission schemes and shall not split intra-state transmission schemes into components and individual elements of sub-stations, lines, bay extension etc. Each of these "complete intra-state transmission schemes" would need to identify the specific purpose for which they are being conceived, list of elements comprising such scheme, timeline for its completion and the expected cost of executing the same.
- The Capital Investment Plan shall identify the intra-state transmission scheme that are above the threshold limit and need to be developed under TBCB mode in accordance with the Tariff Policy and HERC MYT Regulations, 2019.

It is submitted that a threshold limit of **Rs 100 Cr be fixed**, above which all new and augmentation projects for intra-state transmission shall be done under TBCB route only. This shall not only trigger efficiencies of competition in the transmission sector by right sizing projects for competitive bidding but also leave sufficient scope for the STU to undertake any projects of emergent & critical nature.

Prayas (Energy Group):

1. As pointed out by the staff paper, the Electricity Act, the National Tariff and Electricity Policy all have the goal all encouraging competition to further reduce the cost of transmission projects and optimize investments. Thus, the HERC is well within its rights to make enabling provisions

to encourage competition by establishing CapEx thresholds for competitive bidding of Transmission projects as explicitly noted in the Tariff policy.

2. The staff paper also points to the significant gains made in terms of lowering the costs of projects (20%-57%) under the competitive bidding route in comparison to cost plus projects. This is of critical importance with the rising costs of transmission across the country. Further, the paper also points to 'physical as well as financial slippages in the implementation of the projects' due to a variety of reasons. Further, competitive bidding is not only about encouraging private players and investments, but rather to put in place a more balanced risk sharing between the STU and project developer. As we know, PGCIL and some STUs have also participated in the bidding processes in the past and even won some of the bids.

3. Section 6 notes the progress in different states and more importantly gives the envisaged year-wise expenses for sub-stations and lines in the coming years in Haryana. Given the scale of these expenses and the well documented benefits of cost reduction and lesser execution times from competitive bidding, we feel that the threshold for competitive bidding should not be too high, so as to have maximum benefits for the consumers.

4. We suggest a **threshold of 50 crore**, above which all projects should be only awarded through a competitive bidding route. As a comparison, the minimum size above which competitive bidding is a must in solar power projects, as per the GoI bidding guidelines is 5 MW. This translates to a project cost of roughly 20 crores.

HVPNL:

It has been submitted by HVPNL that multiple threshold limits may be worked out for different projects i.e. evacuation projects, system strengthening projects, communication networking (SLDC) projects etc. as under:

1	400 kV / 220 kV System	Rs. 200 Crore and above
2	220 kV System works up to the interface with Discoms	Rs. 100 Crore and above
3	SLDC Expansion works	Rs. 50 Crore and above
4	Evacuation system for generating plants of capacity 500 MW and above	Rs. 100 Crore and above

HPPC:

It has been submitted that apart from the benefits of TBCB as mentioned in the Staff / Discussion Paper, the under the TBCB model, the State Govt. need not to invest any capital in the projects and no tariff payments are to be made till the project achieves CoD. Further, the “threshold limit” be determined in such a way that permits planning and development of end-to-end transmission schemes with upstream and downstream elements, and once commissioned the transmission system can be put to use without any decencies on other elements and with minimal interface and co-ordination issues. The “threshold limit” should help achieve procurement of equipment and provide economies of scale in development, along with the reduction of O&M expenses – which is directly dependent on project size. HPPC has suggested that the **“threshold limit” for competitive bidding may be kept at Rs. 100 Crore** (emphasis added) and for smaller projects, STU may follow EPC route.

5. In view of the Pandemic, the Commission on 15th April, 2020, heard at length the Interveners who had filed written objections / comments in response to the public notice issued by the Commission. As the interveners mostly reiterated the objections / comments filed by them in writing and reproduced above, the same is not be repeated here for the sake of brevity.

6. Commission’s Order:

At the onset the Commission observes that the Ministry of Power, Gol in its recent communication dated 15th March, 2021, has also acknowledged the efficacy of adapting competitive bidding route and has recommended adoption of TBCB for development of intrastate transmission system as the same leads to lower tariff vis-à-vis cost plus tariff, less burden on government finances, risk mitigation as well as infusion of innovative technology.

The Commission observes that there is consensus amongst the Interveners that TBCB ought to be implemented as also acknowledged by this Commission in the staff / discussion paper as well as the Ministry of Power, Gol. Further, the Law / statutes occupying the field is also not disputed. Hence, the Commission is not going into the legal issues or merits / benefits of TBCB. Resultantly, the Commission has proceeded to examine the issue of “threshold limit” as under:

Issue – 1: What should be the “threshold limit” above which all intrastate transmission projects shall be implemented through TBCB.

The Commission has perused the “threshold limit” as set by a few SECR’s and observes that same ranges from Rs. 50 Crore (Punjab) to Rs. 100 Crore (Bihar, Rajasthan). The interveners herein have also suggested Rs. 50 Crore (Adani Transmission Ltd, Prayas (Energy Group), Rs. 100 Crore (EPTA) and Rs. 50 Crore to Rs. 200 Crore (HVPNL multiple threshold limits). It is observed that the Capital Expenditure Plan / Scheme for the FY 2020-21 to the FY 2024-25 proposed by HVPNL involves Capital Expenditure to be undertaken for Load Growth, System Strengthening / improvements, Reliability as well as for New Sub-stations and associated systems. The mean value of CIP exceeding Rs. 10 Crore is estimated at Rs. 28.49 Crore probably due to the reasons that a transmission project, for the purpose of EPC is being split into smaller parcels. However, the objective of introducing TBCB is for integrated end to end implementation of a transmission system. Additionally, the Commission has perused the data available on record for the new substations / augmentation and New Lines constructed by HVPNL from April 2019 to 2020. The same for new sub-stations ranges from Rs. 51.59 Crores to Rs. 233.29 Crore. For augmentation work the CIP ranges from Rs. 16.60 Crore to Rs. 68.06 Crore and for the Lines the same ranges from Rs. 51.99 Crore to Rs. 165.61 Crore depending on the numbers and Circuit KMs.

In view of the above the Commission is of the considered view that for development of end to end transmission projects, it would be appropriate to peg the “threshold limit” at Rs. 100 Crore i.e. **an integrated transmission project of Rs. 100 Crore and above shall necessarily follow TBCB route for new as well as augmentation projects.** Issue – 1 is accordingly decided.

HVPNL (STU) is directed to identify all such transmission project and submit the details including timeline and necessary implementation guidelines to the Commission within two months from the date of this Order.

Issue – 2: What would be the procedural aspects

The Commission observes, as also pointed out by the Intervener that Documents for undertaking competitive bidding in transmission, and the process for selection of developers have been standardised by the Ministry of Power. These documents, as may be amended from time to time, can be utilised for the purpose of TBCB in Haryana. Since these SBDs have been put in place by the Central Government, it would enable the Commission to adopt tariff as discovered through TBCB, under section 63 of the Electricity Act, 2003.

Additionally, it is observed that the SBD including Transmission Service Agreement (TSA) may require certain changes for intrastate Transmission projects. Hence, deviations from the SBDs, if any, shall be submitted for prior approval of the Commission.

In case project specific grant of Transmission License is required the same shall be granted by the Commission after following the due procedure. For the purpose of reference, the General Terms and Conditions of the project specific Transmission License No. JKTLL / Trans / 4 of 2010 available on the official website of the Commission (www.herc.gov.in) may be referred to.

The State Transmission Utility (HVPNL) or any other agency / authority / Empowered Committee designated by the State Government from time to time shall be the Nodal Agency for identifying, co-ordinating and facilitating including finalisation of bid documents including seeking approval of the Commission wherever required, running the bid process and selecting the most competitive bids received, for TBCB in Haryana. The implementation guidelines shall be prepared by HVPNL (STU). Issue – 2 is accordingly answered.

In line with the aforesaid findings of the Commission, the following shall be notified in the Haryana Government Gazette at the earliest.

“In exercise of the powers conferred under Section 61, 66 and 86 read with Section 181 of the Electricity Act 2003 (36 of 2003) & Clause 5.3 of the National Tariff Policy and all other powers enabling it in this behalf, the Haryana Electricity Regulatory Commission decides that intrastate transmission projects costing Rupees one hundred crores and more (Rs. 100 Crores plus) shall be necessarily developed through global Tariff Based Competitive Bidding (TBCB) only. HVPNL (STU) shall prepare the necessary implementation guidelines”.

In terms of the above Order, the present Suo – Motu proceeding is disposed of.

This Order is signed, dated and issued by the Haryana Electricity Regulatory Commission on 26th April, 2021.

Date: 26.04.2021
Place: Panchkula

(Naresh Sardana)
Member

(Pravindra Singh Chauhan)
Member