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No. TPCIL/Com-CERC/14-15/153

11th November, 2014

To,
The Secretary,
Central Electricity Regulatory Commission,
3rd & 4th Floor, Chanderlok Building, 36,
Janpath, New Delhi- 110001
Tel No: 011-23353503/ 91-11-23753923

Sub: Comments on CERC Staff Paper on Transmission Planning, Connectivity, Long Term Access, Medium Term Open Access and other related issues.

Dear Madam,

Ref:

- 1: Engg./DP-Transmission/2014-CERC Dated: 19.09.20
- 2: Our request for extension No. TPCIL/Com-CERC/14-15/131, 17th October, 2014
- 3: Your extension for receiving comments, dated 24.10.2014


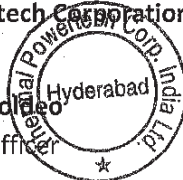
As you are kindly aware, Thermal Powertech Corporation India Ltd (TPCIL) is developing 2x660MW power plant in Nellore, AP, with expected commissioning in Dec'14. Please find enclosed herewith our comments on the above subject.

We request your good selves for kind consideration of our comments before finalizing the above subjected regulation.

Thanking you,

Yours Sincerely,

For Thermal Powertech Corporation India Limited


Rajesh Prabhakar Zoldeo
Chief Commercial Officer


Encl: 1. Thermal Powertech's comments on CERC staff Paper

Thermal Powertech Corporation India Limited, 2x660MW power Plant, AP

Comments on CERC Staff Paper on Transmission Planning, Connectivity, Long Term Access, Medium Term Open Access and other related issues.

1. Whether Connectivity should be retained as a separate product :

TPCIL Reply:

No - Transmission planning to be envisaged on net injection (w.r.t to installed capacity). Accordingly, **Connectivity=Network Access =transmission planning capacity =GNA**

Yes- For specific generators whose connectivity and LTA quantum's are different viz. multi model business (own consumption and power sales), renewable generators, peak operating generators (Gas stations) etc. connectivity may be retained as separate product. Since the generator would be taking support from the grid for the entire connected capacity/access, additional charges via grid connectivity charges (say proposed 20% of total ARR of total transmission charges) to be levied on the generator.

2.

a. If yes, what are in your opinion are the advantages of Connectivity as a separate product?

TPCIL Reply: Applicable only for specific generators (as detailed above):

Advantages:

Enabling DIC to seek the network access less than his actual connected capacity with the Grid

Illustrative: Generator has installed capacity of 2000MW and in house consumption of 1500MW and remaining power will only be sold to third party on continuous basis. In this case, connectivity may be for 2000MW and network access for 500MW only. It may not be relevant to this Generator for seeking Connectivity and network access together for the quantum of 2000MW. **Hence connectivity can be retained separate product in such specific cases.**

b. If connectivity is retained as a separate product, then what whether is should be free or transmission charges should be borne by generator or drawee entity which is applying for connectivity?

TPCIL Reply: As explained above, since the generator would be taking support from the grid for the entire connected capacity/access, additional charges via grid connectivity charges (say 20% of total ARR of total transmission charges) to be levied on the generator. So, total transmission charges may be as below,

Total transmission charges= (20%) (of ARR as a Connectivity charges) + (80% of ARR as Access based charges as per MP)

Illustration:

From the total ARR of transmission charges, 20% of the ARR may be charged to all the users of the grid as part of connectivity charges and remaining 80% of the ARR may be recovered through Marginal participation pricing mechanism/Usage based.

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Attributes of connectivity charges to capture the following:

- ✓ Connectivity charges shall be levied on all the Grid users irrespective of the access.
 - ✓ Additionally, these connectivity charges to be levied on actual support basis (among the sharing generator, drawees) instead of levying uniform basis on installed capacity.
- c. Whether for connectivity, only transmission charges corresponding to connectivity transmission system should be charged or some part of Grid transmission charges (25% as proposed) should also be charged?

TPCIL Reply: Some portion of the Grid transmission charges (not exceeding 20% of the Total ARR of the Transmission system) may be charged.

3. If no, what is in your opinion are the dis- advantages of Connectivity as a separate product?

TPCIL Reply: Generators may under declare the access requirement leading to conservative transmission planning thereby resulting into congestion. It is a major **drawback from transmission planning/implementation perspective.**

However, the recent draft PoC 3rd amendment captures these issues ensuring transmission charges are levied based on the actual usage basis. Accordingly, irrespective of generators seeking under declared access, the actual/peak generation would be captured by 3rd amendment leading to appropriate recovery of transmission charges. Also, generators with continuous under declaration to be penalized (say 1.5 times PoC charges - for access above the declared access) to discourage such under declaration.

We request CERC to fast track implementation of PoC 3rd amendment regulations so as to reflect transmission charges based on actual peak usage which is in the spirit of NTP.

4. Bank Guarantee

What should be amount of sufficient construction bank guarantee to safe guard against the risk of stranded asset in case generating project fails to get commissioned?

- a. Is existing construction bank guarantee amount (Rs 5 lakh per MW) sufficient when transmission cost is about Rs 1 cr per MW?

TPCIL reply: No, it will not be sufficient and may lead to burdening the existing DICs with additional charges in the absence of the committed generator/utility failing to fulfill its obligations.

- b. Are proposed bank guarantees equivalent to cost of transmission line is sufficient?

TPCIL reply: Yes, however, it is not fair to only burden the generator for the cost of the entire transmission assets and procurer also needs to share this cost equally. Accordingly, the BG value from generator should only be 50% of the total cost of the asset.

- c. Is proposed bank guarantees are very high?

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TPCIL reply: Yes, however to safe guard the existing DICs with additional charges in the absence of the committed generator/utility failing to fulfill its obligations the BG mechanism is inevitable.

However, it is not fair to only burden the generator for the cost of the entire transmission assets and procurer also needs to share this cost equally. **Accordingly, the BG value from generator should only be 50% of the total cost of the asset.**

Additionally, we are proposing stepwise submission of BG to match the construction progress and to avoid upfront financial burden on the generator.

Sl. No.	Generator Activity	CTU activity	BG Amount to the Cost of Tr.Sytem	Remarks
1	Land, other clearance received	Has to explore all the options for evacuation and planning	No BG required	CTU has to explore all the options, system studies etc. Any charges incurred during development stage may be collected in the form of Application Fee from developer.
2	Singing of Notice To Proceed for BTG	Initial RoW survey & Award of contract	BG for 10% equivalent of Tr.Cost	In this stage Generator may be given 10% BG to transmission developer to facilitate him with RoW survey and award of contract for execution of the line.
3	Construction progress/exp enditure incurred - 30%	Transmission line execution	BG for 30% Equivalent of Tr.Cost	BG equivalent to 30% to be submitted. Transmission system development to be in line with generator project progress. In case of Generator fails after this BG can be forfeited.
4	Progress 50%	Transmission line execution	BG for 50% equivalent of Tr.Cost	BG equivalent to 50% may be given as security.

Note: However commission to ensure the total BG value should not cross unrealistic values (say max upto 150 Cr), as issuance of BG requires lenders approval and the same will become a hindrance in the event the values are too high. With higher BG obligations, generators will be hesitant to give such securities which will delay the transmission execution. Thus, to ensure equitable sharing of risks for transmission assets, the BG value should be arrived at keeping the concerns of the generator as well.

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5. Bank Guarantee

What should be amount of sufficient construction bank guarantee to safe guard against the risk of stranded asset or transfer of liability to other consumer in case generating project wants to exit/ downscale LTA after commissioning (Please give justification for your views)

- (a) NPV equivalent to 12 year transmission charges
- (b) NPV equivalent to 7 year transmission charges
- (c) X Rs per MW of installed capacity –One time charge
- (d) Five years Average Injection and withdrawal charges
- (e) Five years Average injection charges only

Before Generator Commissioning:

Generator to borne 50% of the risk and shall give Bank guarantee as explained above. If Generator fails same can be forfeited.

Post commissioning of the Generator:

After commissioning of the generator **if at all generator is seeking relinquishment/temporary disconnection due to reasons beyond its control, in this case asking them to pay above transmission charges may not be reasonable.** This particular issue was well addressed in the recent draft 3rd amendment to PoC which will give relief to such generators since they will be paying only based on actual usage. **Thus we are of a strong opinion to first implement 3rd amendment.**

Concept of transmission pool:

In the event the assets are **underutilized/stranded, cost to be redistributed on all India basis instead of attributing or adding only to the neighboring nodes. This will ensure the impact is marginal and can easily be absorbed by all as compared to substantial increase in PoC for neighboring nodes which will burden the generators/procurers in the vicinity.**

Illustration:

Many gas power stations are ideal, due to KG gas not available which is beyond generator control, in these conditions, generator cannot utilize the transmission system and these are beyond generator control. It is not reasonable to ask a generator to pay the transmission charges; this underutilized asset cost may be distributed on all India basis instead of attributing to next parallel generator/procurer with marginal participation pricing. Further, with PoC 3rd amendment, in case of down scaling the LTA quantum, will not result into any gaming as transmission charges are based on the utilization. However, if Peak injection declared by the Generator is lesser than actual injection, this excess quantum's injection charges need to be collected via penalty (say 1.5 times of PoC) to discourage generators for under declaration.

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6. Delay in Commissioning

In case of delay in generating unit(s) /project:

a. Date of LTA should be firm and no relaxation should be provided

TPCIL Reply: No. Some genuine execution delays are beyond the control of the generator and accordingly we propose **relaxation may be provided to the maximum extent of 6 months.**

b. If information of delay is provided sufficiently in advance some staggered relief can be granted

TPCIL Reply: Yes, with intimation and updating to CTU in the coordination meeting, relaxation may be provided in staggered manner to the maximum extent of 6 months.

c. Issue should be decided mutually between generating company and transmission licensee subject to condition that no burden is transferred to other users

TPCIL Reply:

1. **In case of dedicated line construction** - It can be a mutual agreement, as no burden is transferred to any other Users.

2. **Common associated transmission system** - It should not be mutual agreement as other users are involved. In this case, for any generator/procurer relief to a maximum extent of 6 months to be provided in staggered manner. This may result in **transfer of burden to other users and accordingly we have proposed Pooled concept (cost distribution on all India basis instead of burdening the parallel generator/procurer) to ensure minimal impact.**

Proposal: Commission is requested to consider the following staggered relief mechanism:

- ✓ If generators commissioning schedule is delayed upto 3 months from the date of commission of transmission system, generator need not pay any transmission charges. In this 3 months period, cost of underutilized transmission asset may be distributed on all India basis, instead of attributing to the parallel generator as per marginal participating pricing.
- ✓ If generators commissioning scheduled is delayed for more than 3 months and upto 6 months - from 3rd month onward till commissioning of the generator, the generator to pay **50% of the underutilized asset cost proportionate to the contracted capacity as a non POC charges or avg. PoC rates of the contracted access as per PoC 3rd amendment whichever is lower.**
- ✓ If generators commissioning scheduled is delayed more than 6 months - Generator to approach commission for relief OR pay **100% cost of the underutilized asset cost proportionate to the contracted capacity (proposed strengthening scheme) or avg. PoC rates of the contracted access as per PoC 3rd amendment whichever is lesser.**

TPCIL additional Proposal: In case of delay in commissioning of associated transmission system:

TPCIL Reply: Since the regulations for delay by the generator cover the risks of the transmission utility, commission to consider giving similar relief in the event the transmission utility fails to execute transmission system as per commitments.

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As per the existing LTA 2009 regulations, in case of delay of the transmission system, transmission licensee is liable to pay to the Generator transmission charges in proportion to the commissioned capacity, which does not cover any risks/commercial exposure of the Generator. We propose to have identical mechanism to cover the risks in case of transmission system gets delayed:

- No penalty for delay upto 3 months.
- Delay beyond 3 months - 50% of the capacity charges for un-evacuated quantum (as per PPA/market tariffs) to be paid to the generator.

7. Question No. 7: Shallow Connection vs Deep Connection:

a. What is your view on shallow connection vs deep connection?

TPCIL Reply:

Shallow connection: For connection to the Grid (dedicated line), though transmission investment requirement is less, however the same is prone for Congestion as no strengthening for evacuation to load Centre is planned. Such arrangement is only feasible for intermittent injections as in case of renewables.

Accordingly, mechanism may only be adopted for renewables integration to the grid, and the generators to be liable to pay the transmission charges on energy injection basis (as Plant load factor is low for wind, solar etc.).

Grid Connectivity Charges: However, since they will be taking the support of the grid, as proposed, grid connection charges to be paid by such generators.

Accordingly, total transmission charges = Charge for dedicated transmission line charges + grid connectivity charges (connectivity charges proposed (20%)) on Installed capacity + Transmission charges as per PoC on actual energy delivered

Deep Connection: Concept as proposed in question 1 & 2 - **All the conventional resources to take complete access to the network to help building congestion free network.** Utility may have to charge the transmission charges based on the participation from the generators. Also some part of the transmission charges levied as connectivity charges.

b. Shallow connection should be permitted to only renewable generation or to both Renewable and conventional generators.

TPCIL Reply: Agree to Shallow connection permitted only for renewables generation. However, exemption may be given for CPP and some typical generator (Gas generator-Peaking station), where the connectivity and access are different (as proposed in question 1 & 2).

c. Under shallow connection system how transmission planning will be done and who shall bear the Grid level transmission charges

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TPCIL Reply: Transmission planning shall be done based on the coincidental generation of renewable cluster at the pooling station for onward evacuation. Transmission planning also should ensure that Wind, hydro and thermal coordination and accordingly transmission planning to be undertaken.

As per the national tariff policy of MoP, Government plans to encourage the Renewable power Generation and accordingly MoP levied **Renewable Purchasing Obligation on the Discoms and other major industrial captive users**. To utilize this eco-friendly energy on priority basis, transfer of power from wind clusters to load Centre without congestion, strengthening of the transmission system may be required. In this regard, development of these transmission systems centrally may be coordinated by the CTU/CEA and requirement transmission system assessed. MoP may have to impose, **SREC (Sharing of Renewable energy Evacuation Charges like RPO)** on the **DISCOM and other demand consumers OR for development of this transmission system, 80% investments need to be granted by the Govt. of India or DISCOMs (as a part of their RPO). Remaining 20% charges shall be recovered from the renewable generator part of connectivity charges.**

8. Question No. 8(a): Whether you are a injecting entity or Drawee entity or both?

TPCIL Reply: Injecting Entity, an IPP of 2 x 660 MW

9. Question No. 9: GNA

a. What is your opinion on General Network Access (GNA) proposed by CEA?

TPCIL Reply: Commission's Existing regulations with amendments (*Grant of Connectivity and Access regulations amendments and, pricing -PoC 3rd amendment*) will give the similar effect of GNA **for access** and pricing usage based as per NTP (in line with Act'03 and National tariff Policy). Also, amendments to the existing regulations are more likely to find acceptability among the stakeholders when compared to a complete shift. We once again request CERC to finalize the 3rd amendment to PoC and make some minor changes in the Grant of Connectivity Regulations as proposed in this staff paper (Alternative 1) to give the same effect as of GNA.

b. Whether it should be adopted for transmission access and transmission charges?

TPCIL reply: Transmission pricing may be usage based (PoC 3rd amendment gives the same), for access some suggestions to be included in the Grant of Connectivity, Access Regulations to give the same effect as of GNA.

c. What should be bank guarantees and Exit Charges under GNA mechanism?

Same as existing regulations, amendments as suggested in this questioner.

d. Whether it would be possible to plan transmission system to give assured access in all directions?

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TPCIL Reply: It may be possible with available system study software, study experts, Grid specialists/network operators, who are familiar to the Grid network (as explained below).

10. Question No. 10: Transmission Planning

a. **How Transmission planning in the country needs to be reviewed under present condition to take care of future need of robust transmission system?**

TPCIL Reply: Considering the uncertainty in the power sector growth, inaccurate demand projections, large number of grid users, and additions of Renewable generation with Grid in lesser time, Transmission system development is not keeping pace with the actual requirement of Transmission system, thereby leaving the network severely congested.

Lack of intrastate transmission system for accessing power from rest of India via Interstate transmission system is leading to network congestion and is making the interstate transmission system investment unutilized resulting in power parity between the regions, which is against Act'03 and tariff policy. **For holistic growth & improvement of the sector, even the Intra state transmission planning and development should be envisaged with coordinating with CTU/CEA.**

Suggestions:

- ✓ **Instead of making deterministic based transmission planning, Long term perspective transmission system development/planning need to be envisaged** for the various future scenarios with anticipated Load generation balances projected by Utilities/Operators **without ignoring key country Strategic initiatives, regional Governments and Local parameters etc.**
- ✓ Probabilistic transmission planning for various future scenarios has to be deliberated with stakeholder; thereby CTU need to be prepared well in advance for all the anticipated load generation balances to provide cost benefit for the investment in transmission sector to end user.
- ✓ Also, CTU being a nodal agency for transmissions system development has to coordinate with all State utilities, generators and other agencies (LDC), proactively CTU has to identify and plan the transmission system accordingly.
- ✓ If Price parity between the regions is high, CTU needs to identify those areas and construct the lines in compressed time schedules (**its major criteria than price discovery in TBCB route**) with Honorable commission approval.
- ✓ Transmission planning shall be done based on the expected Load growth (EPS), Generation planning (Proposed) instead of only Planning based on IPP/Utility approach to CTU for the access. Also for long term solutions in critical areas, occasionally, Transmission system may have to be planned for higher capacity to avoid RoW issues in the future in the same corridor.

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- b. Whether there is need for a separate Regulation for transmission planning to make it more participative?

TPCIL Reply: Yes, only if separate regulation from Commission will encourage all agencies to participate proactively in the transmission planning.

- c. Whether transmission planning should mandatorily make margins available for short term power market?

TPCIL Reply: Since we propose (as explained in question 1&2) to build transmission system for 100% evacuation of installed capacity, margins would be available for short term, thus **need not to create separate facilities for the same.**

- d. Whether transmission system planned by CEA /CTU need to be adequately explained from cost benefit point of view?

TPCIL Reply: Yes, Transmission system planning to be discussed with stake holders and public well in advance through various Coordination Committee meetings.

- e. Is there requirement of making submission of information related to transmission planning legally binding?

TPCIL Reply: Yes, to be regulated by the commission.

11. Question No. 11 : Utilization of Congestion charges

- a. Whether proposal of using congestion charges to reduce the long term ISTS transmission charges acceptable ?Or

TPCIL Reply: No, As Congestion revenue received from the congestion corridor participants and hence, congestion revenue to be utilized to strengthen the corridor at compressed time schedule.

- b. Whether Congestion charges are to be utilized for creation of specific transmission assets for relieving the congestion? How should this be treated- as equity, loan or grant?

TPCIL Reply: As, Congestion revenue received from the congestion corridor participants, the revenue to be utilized for strengthening the corresponding corridor at compressed time schedule. Same can be treated as **Grant for strengthening** the Transmission system and it will not increase the additional ARR in the same corridor.

Illustration: In corridor congestion revenue realized Rs. 500 Cr and for the strengthening of the corridor and investment requirement is equal or less than congestion price realized in a year, then it is proposed to construct the transmission system (from 100% grant) as to reduce the power price parity between the regions.

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12. Question No.12:

a. **Transmission corridor allocation for Power market:**

TPCIL Reply: Yes, it shall be allocated, however not to the platform but to individual bidders of the plot form.

b. **Whether participants of Power exchanges should be allowed to participate in e-bidding for transmission corridor? or**

TPCIL Reply: Yes, participants allowed for e-bidding for the corridor access, and the bidder to subsequently utilize the same in day ahead markets (as proposed in the staff paper).

c. **For power market development, certain quantum of corridor may be reserved for power market with all participant of Power Exchange sharing the transmission charges of reserved corridor**

TPCIL Reply: Though the concept is noble, more clarity is required to understand the working of such priority corridor bookings, **Request Commission to draft separate paper for the same.**