

# MB POWER (MADHYA PRADESH) LIMITED

Corporate Office: 235, Okhla Industrial Estate, Phase-III, New Delhi- 110020  
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MBPMPL/MP//CERC/2014-15/5477

20 Oct' 2014

## The Secretary

Central Electricity Regulatory Commission (CERC)

3<sup>rd</sup> & 4<sup>th</sup> Floor, Chanderlok Building

36, Janpath

New Delhi – 110 001

**Sub:** Comments on the Staff Paper on Transmission Planning, Connectivity, Long/Medium Term Open Access and Other related Issues.

**Dear Madam,**

We write in reference to the subject Staff Paper issued by this Hon'ble Commission inviting the comments from the various stakeholders.

We would like to bring to your kind notice that we are power generating company and a Designated ISTS Customer (DIC). We are in the advanced stage of completion of our Phase-1, 1200 (2x600) MW Thermal Power Project in District Anuppur, Madhya Pradesh.

We have reviewed the subject Staff Paper and are enclosing our comments and suggestions as Annexure-1. We hope that the Hon'ble Commission would appreciate genuine merits set out in our comments and suggestion and would review the same favourably.

**Thanking You,**

**Yours Faithfully**

**Abhishek Gupta**

Assistant General Manager (Thermal)

**Enclosures: A/a**

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## ANNEXURE-1:

### **Our Comments on CERC Staff Paper on Transmission Planning, Connectivity, Long/Medium Term Open Access and Other related Issues**

#### **1. General Network Access (GNA)**

**Our Comments:** We support Alternative-2 of transmission planning execution and transmission cost allocation based on GNA concept. However the following additional points are suggested on GNA:

- a) **Design of ISTS:** CEA/CTU to design the ISTS to evacuate 100% generating capacity and drawl corresponding to the projected demand (less own generation) of each State.
- b) **Intra-state system:** CEA/STU to coordinate the design of the intra-state system by the STU to facilitate the planned injection from the ISTS into the State.
- c) **LTA design margins:** CEA/CTU to add 5% of LTA requirements to account for inaccuracies in the demand projections and another 5% of LTA on account of others unknown factors.
- d) **Both Generators & beneficiaries to seek LTA.** Applications for LTA to be made at least 4 years in advance by both.
- e) **In case PPAs have not be signed:** Generators to apply for injection to ISTS based on target Region/State. Similarly the States to apply for drawl/injection from ISTS on the basis of target generator/region and their projected demand less own generation.
- f) **Conversion of Target to LTA to firm LTA:** To be applied at least 6 months before scheduled date of commencement of supply.
- g) **In case PPAs have been signed:** Applications shall be made on the basis of PPAs.
- h) **Processing of LTA application:** All LTA applications received by CTU shall be processed for grant of LTA as per the supply schedule mentioned by the applicant. CTU shall record the reasons for rejection of each application. The same shall also be conveyed to the applicant by CTU.
- i) **Transfer of LTA:** LTA granted on the basis of 'Target beneficiary' shall be transferable in part/full, to any other beneficiary. However LTA granted on the basis of PPA shall be transferable in part/full only on expiry of the PPA. In the case of the latter, a processing fee of Rs 1.0 lakh per application shall however be payable by the holder of the LTA to CTU.

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## 2. Open Access

- a) **LTA** – 12 years or more, to be granted to Generators for injection into the grid & to beneficiaries for drawl from the grid. Max ceiling of LTA – for Generators shall be their installed capacity and for the Beneficiaries projected load less own generation.
- b) **MTOA** – Max 15 months, to be granted only to the beneficiaries to facilitate sale of surplus power. Application to be made to CTU two months in advance and granted one month in advance.
- c) **New Generating Projects** that have not been able to enter into long term PPAs for their 100% capacity shall be granted MTOA for their balance capacity for a max period of 15 months beyond the COD of their last unit. Thereafter they may transact their surplus capacity under STOA only.
- d) **STOA** – Max 45 days, to be granted only to generators for sale of day-to-day unscheduled power. Applications to be made to NLDC.
- e) **Timelines:** CTU to grant LTA to an applicant within 2 months of the receipt of an application. CTU to maintain transparency in the grant of LTA and therefore shall record the reasons of each deferment/rejection of a LTA application. In case of a delay in the same by CTU, the applicant shall be deemed to have been granted LTA as per his application.

## 3. PPAs: PPAs need to be in pairs of point-to-point.

## 4. Connectivity

- a) To be granted to both the Generator & the Beneficiaries.
- b) One time connectivity charges to be paid by the applicant to the CTU.
- c) Entitles the generator to inject upto a max of their Installed capacity + continuous overload capacity.
- d) Entitles the Beneficiary to draw/inject upto a max of LTA granted + 5% towards unforeseen conditions.
- e) Any injection/drawl beyond the above entitlements shall have penal provisions.

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## 5. Calculation of TTC/ATC – Criterion for “Planning for Grid Operations Planning”

- a) Para #1.2 of the ‘Transmission Planning Criterion’ issued by CEA states:

*“The planning criteria detailed herein are primarily meant for planning of Inter-State Transmission System (ISTS) down to 132kV level and Intra-State Transmission System (Intra-STS) down to 66kV level, including the dedicated transmission lines”*

- b) Para#1.3 of the ‘Transmission Planning Criterion’ issued by CEA states:

*“.....and gives guidelines for transmission planning.”*

- c) Para#2.2 of the ‘Transmission Planning Criterion’ issued by CEA states:

*“These criteria shall be used for all new transmission systems planned after the above date.”*

It is clear from the above that the “Transmission Planning Criterion” issued by the CEA is to be applied only for the purpose of planning of the Inter-state Transmission and therefore it would be incorrect to apply it for any other purpose including ‘Planning for Grid operations’. However under the present practice the NLDC/RLDCs apply the CEAs “Transmission Planning Criterion” for calculation of the TTC/ATC. The activity of Transmission planning requires advance action and is therefore undertaken over a long time horizon of 5 years or more. However the TTC/ATC, calculated by NLDC/RLDCs, are for ‘day to day grid operation’ and therefore has a short time horizon from day ahead to a few months. It is thus incorrect to use the CEAs “Transmission Planning Criterion” for “Planning for Grid operations” including calculation of TTC/ATC. There is therefore an urgent need to develop the criterion for ‘Planning for Grid operations’ which shall also facilitate the calculation of TTC/ATC in a more pragmatic manner.

**It is suggested that the criterion so developed shall provide for:**

- a) **Loading limits of Transmission elements under credible contingency conditions:** Transmission lines to be loaded up to 90% their “Thermal loading capability” and Transformers to be loaded to 90% of their rated capacity. HVDC elements to be loaded to 90% of their rated capacity.
- b) **Normal conditions:** Transmission lines to be loaded up to 80% of their “Thermal loading capability”, the HVDC system to 70% of its rated capacity and Transformers to be loaded to 70% of their rated capacity.

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## The Credible Contingency Conditions shall include:

- a) **Normal outage criterion:** Outage of a 'double circuit line' OR outage of one pole of an HVDC element without loss of load or generation OR outage of the largest generating unit without loss of load.
- b) **Multiple outage criterion:** Outage of a 'double circuit line' along with another single circuit line in a different corridor OR Outage of both poles of an HVDC element.

## 6. COMMENTS ON THE UNADDRESSED ISSUES IN GNA

*(Para#5.10 of the Staff Paper)*

- a) **Para#5.10.1: "Relinquishment charges:** *CTU has over the last one year been expressing concern about stranded assets as many generators for whom the transmission system has already been developed or it is under execution, are either downsizing, rescheduling or simply quitting and seeking relinquishment of their LTA. Although existing Regulations provide for payment of 12 years transmission charges for stranded capacity, CTU is taking a stand that it is difficult for them to determine stranded capacity in a meshed network, it is not clear how the concept of GNA would take care of this."*

**Our Comments:** The issue needs to be examined from the point of view of both "Stranded transmission capacity" due to relinquishment of LTA and from 'Stranded generating capacity" due to non-availability of LTA. Our views on the same are as follows:

- i) **Relinquishment of LTA:** Payment of compensation appears to be logical only if it can be established by CEA that the TSP has suffered a 'commercial loss' on account of the transmission capacity being rendered "stranded" as a result of the LTA being relinquished. To facilitate the utilisation of the same the LTA holder be allowed to transfer the same, in whole or part, to any other interested party.
  - ii) **Stranded generation capacity:** The TSP to compensate for the commercial loss suffered by the Generator due to non-availability of the approved LTA.
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- b) **Para#5.10.2: "Planning inputs from Drawee entities:** *The mismatch in transmission planning is due to the fact that generators want transmission system to be developed without identifying customers and customers who will ultimately draw power from ISTS are not coming out with their future requirements. GNA appears to be trying to force a commitment from drawee entity based on a firm commitment in respect of injection/drawl*

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*to be given four years in advance. With unbundling and open access it may practically be very difficult for state utilities to firm up their transmission requirement. This issue remains unanswered in GNA and it is presumed that as liability is pre-decided and power drawl more than GNA would not be allowed; it expects that correct input would come from state utilities. This may not come true and it may only increase the tendency to under-declare transmission requirement. Infrastructure planning in this manner may not prove to be successful. The integrated resource planning with collaborative efforts in forecasting demand and supply scenario in which cost of power is going to play a major role in deciding to opt for importing power from outside against costly generation inside the generation will ultimately decide real time system operation. The system should therefore be flexible to accommodate all type of access. Experience shows drawee entities are ready to bear for slightly higher transmission charges to avail the benefit of flexibility.*

**Our Comments:** The ground position is that the States do not come forward to enter into a long term PPA four years in advance due to several credible reasons which could cause a delay in the commissioning of the generating project or its associated Transmission system. Further it cannot be denied that four years advance notice is necessary for augmentation of transmission capacity. The above ground position thus needs to be factored in the regulations for grant of LTA. It is therefore proposed that in case the generator is not able to enter into a firm PPA four years in advance, LTA may be granted to him based on 'target beneficiary' as per the present system. CTU shall thereafter proceed to plan and augment the transmission system as per the LTA so granted. In case the generator enters into a firm PPA with a different beneficiary the issue of LTA be settled as follows:

- i) Generator be allowed to transfer the approved LTA in part or full, to any other interested party or relinquish the same. The generator shall compensate the TSP as per the provisions on respect of 'stranded transmission capacity'. However it shall be essential for CEA to establish that the relinquishment has resulted in a commercial loss to the TSP.
- ii) Generator may either seek a transfer of an approved LTA from any willing party OR apply to CTU for grant of additional LTA.
- c) **Para#5.10.4:** *"Also Regulation prohibits any injection in absence of any type of access even if connectivity is granted. So generator is taking the risk of bottling up his power if he did not seek full LTA. The process of payment based on LTA further discourages him declaring his actual requirement because till he finds the customer payment of*

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*transmission charge is his responsibility. Such type of generator can inject only under STOA and STOA is given based on available margins. This type of product is available in US power market also. However as discussed in the Central advisory committee meeting, this connectivity may be given with a charge like upfront payment of capital cost of connectivity line or an exclusive liability to pay for the tariff of connectivity line."*

**Our Comments:** One of the objectives of regulating a new connection to the ISTS is to "To ensure the safe operation, integrity and reliability of the grid". Further it is primarily a means to ensure that the new element complies with the technical requirements of the grid. Therefore there is no justification of any upfront capital cost.

- d) **Para#5.10.6** *"It is important to note that the both existing system and GNA system are not very conducive for development of transmission system for Renewable Generation which is a public policy investment. Due to their location away from load centre , low utilization factor and lack of identified beneficiary in the regime of different RPO and REC mechanism, if either of the system is applied as it is then it will hamper growth of Renewables."*

**Our Comments:** The intermittency and variability in the generation by the Renewables is identical to the operating characteristics of peaking/ pump storage generating stations. However since all parties are bound by the policies of the GOI, GNA shall not come in the way of development of the Transmission system to meet their requirements.

## 7. POINTWISE RESPONSE TO THE PROPOSALS MENTIONED (Section 10 of the Staff Paper)

Our Comments on the actions proposed to be taken under Section 10 are as follows:

- a) **Para#10.1.1:** *"Planning based on Installed Capacity."*

**Our Comments:** Planning to based on Installed Capacity + Continuous Overload Capacity of the Generator.

- b) **Para#10.2.1:** *"Adoption of Alternative 1 or Alternative 2 GNA concept proposed by CEA both for generator (installed capacity) and drawee entities for planning, connectivity and exit."*

**Our Comments:** We prefer Alternative 2 on account of the following reasons:

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- i) The entire process strikes a balance between the risks faced by both the Generator & the TSP.
- ii) Better coordination between the Generator & the TSP as suggested under Para# 7.4.6, 7.4.7 & 7.4.8.
- iii) The proposed system reasonably incorporates the distinct possibility of 'change of a Region/State' at the hands of the Generator.

**However the following may also be incorporated under Alternative 2:**

- i) The connectivity provided to the Generator shall be equal to its Installed capacity + its continuous overload capacity.
- ii) The connectivity provided to the Drawl entity shall be equal to its drawl/injection LTA + 5% towards unforeseen.

## **8. Our Point-wise Reply on the questionnaire under Section 11 of the Staff Paper**

**Question No. 1:** Whether Connectivity should be retained as a separate product:

**Reply:** Yes

**Question No. 2(a):** If Yes, what are in your opinion are the advantages of Connectivity as a separate product?

**Reply:** Facilitates:

- a) Financial Closure of the Generating station
- b) Finalisation of the Switch yard of the Generator including the Generator Transformer
- c) Drawl of Start-up power
- d) Finalization of the transmission system for injection of power by the generator.

**Question No. 2(b):** If connectivity is retained as a separate product, then whether it should be free or transmission charges should be borne by generator or drawee entity which is applying for connectivity?

**Reply:** Connectivity should be retained as a separate product however the associated transmission charges should be borne by the drawee entities. In case the same are borne by the generator he shall recover the same through his generation tariff which will ultimately be paid by the drawee entities. Therefore no purpose shall be served in case the generator bears the same.



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**Question No. 2(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?

**Reply:** Connectivity does not entitle the generator/drawee to inject/draw power. Establishment of Connectivity does not extend any service by the TSP however it shall facilitate a service by the TSP to the drawee entity in case of an injection by the generator. It would therefore not be logical to impose any Connectivity charges.

**Question No. 3:** If no, what is in your opinion are the disadvantages of Connectivity as a separate product?

**Reply:** There are no credible disadvantages of Connectivity as a separate product.

**Question No. 4:** Bank Guarantee: What should be amount of sufficient construction bank guarantee to safeguard 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?
- b) Is proposed bank guarantees equivalent to cost of transmission line is sufficient?
- c) Is proposed bank guarantees are very high?

**Reply:** The proposed Bank Guarantee is not necessary on account of:

- a) Provision of payment of compensation on account of 'stranded transmission capacity' due to reasons attributable to the generating projects.
- b) In the absence of a similar provision to safeguard the risk of stranded generating capacity in case the TSP fails to provide LTA to the generator.

**Question No. 5:** Bank Guarantee: What should be amount of sufficient construction bank guarantee to safeguard 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

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**Reply:** It is proposed that in order to resolve such issues the LTA should be made 'transferable' by its holder in part/full. Further the proposed Bank Guarantee is not necessary on account of:

- a) Provision of payment of compensation on account of 'stranded transmission capacity' due to reasons attributable to the generating projects.
- b) In the absence of a similar provision to safe guard the risk of stranded generating capacity in case the TSP fails to provide LTA to the generator.

**Question No. 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
- b) If information of delay is provided sufficiently in advance some staggered relief can be granted
- c) Issue should be decided mutually between generating company and transmission licensee subject to condition that no burden is transferred to other users

**Reply:** The issue would not arise in case our suggestion that LTA should be 'transferable' in part or full is accepted.

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

- a) What is your view on shallow connection vs deep connection
- b) Shallow connection should be permitted to only Renewable generation or to both Renewable and conventional generators.
- c) Under shallow connection system how transmission planning will be done and who shall bear the Grid level transmission charges

**Reply:**

- a) We support 'shallow connection' together with GNA.
- b) To be permitted to all generators under GNA.
- c) The transmission charges shall continue to be charged as per the PoC concept.

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

**Reply:** Injecting entity.

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## Question No. 9: GNA

- a) What is your opinion on General Network Access (GNA) proposed by CEA?
- b) Whether it should be adopted for transmission access and transmission charges?
- c) What should be bank guarantees and Exit Charges under GNA mechanism?
- d) Whether it would be possible to plan transmission system to give assured access in all directions?

## Reply:

- a) We are in agreement of the suggestion of CEA.
- b) It should be accepted for 'transmission access and transmission charges shall continue to be charged as per the PoC concept.
- c) The issue shall not arise if LTA is made transferable in part/full.
- d) Yes it can be achieved progressively to a large extent as we progress in time.

## 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?
- b) Whether there is need for a separate Regulation for transmission planning to make it more participative?
- c) Whether transmission planning should mandatorily make margins available for short term power market?
- d) Whether transmission system planned by CEA /CTU need to be adequately explained from cost benefit point of view?
- e) Is there requirement of making submission of information related to transmission planning legally binding?

## Reply:

- a) We need to build 'super highways' for bulk transmission of power across the Regions/States. The time horizon for such highways should be not less than 15 years in respect of load projections. The intra-state transmission plans need to be coordinated with such plans and shall be designed to deliver power to states/ load centres.
- b) Yes there is a strong need to make the planning process more participative and accountable.
- c) We have suggested a design margin of 5% over the projected demand towards data inaccuracies and another 5% towards other unknowns.

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- d) Yes but over a time horizon of 10 years after its commissioning.
- e) No but the entities providing the information should be made accountable towards the same.

## **Question No. 11:** Utilization of Congestion charges

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

**Reply:** We would suggest that the congestion charge should be adjusted against the long term transmission charges.

## **Question No.12:** Transmission corridor allocation for Power market:

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

**Reply:** The role of the Power Exchanges needs to be limited to the 'Short term market'. Their operations should remain focused at the utilization of the day-to-day surpluses by way of un-requisitioned generation and to utilize the inherent design margins in the transmission system to transact such surpluses. There is therefore no case for the Power Exchanges to own transmission corridor/asset.

- a) The Power Exchanges shall not be allowed to bid for transmission corridors.
- b) The suggestion can be reviewed only after the shortage of LTA for both the generators/drawees have been substantially eradicated.

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