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To

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Sub: Views of GRIDCO on Draft CERC (Grant of Connectivity and General Network Access to the Inter-State Transmission System and other related matters) Regulations, 2017.

Sir,

Inviting reference to the above, it is to submit that the views of GRIDCO on “Draft CERC (Grant of Connectivity and General Network Access to the Inter-State Transmission System and other related matters) Regulations, 2017” are enclosed here with for necessary consideration, while taking up the aforesaid review.

This is for your information and necessary action please.

Yours faithfully,

Encl: Views of GRIDCO

C.C to:-
1. Director (F & CA), GRIDCO, Bhubaneswar for information.
2. E.A. to CMD, GRIDCO for kind appraisal of CMD.
Views of GRIDCO on Draft CERC (Grant of Connectivity and General Network Access to the Inter-State Transmission System and other related matters) Regulations, 2017:

CERC has published Draft CERC (Grant of Connectivity and General Network Access to the inter-State transmission system and other related matters) Regulations, 2017 & invited views from the stakeholders. The views of GRIDCO on the aforesaid draft Regulation is as below:

Regulation 2.1.(e) :“Available Transfer Capability (ATC)” means the transfer capability of the inter-control area transmission system available for scheduling commercial transactions (through long term access, medium term open access and short term open access) in a specific direction, taking into account the network security. Mathematically ATC is the Total Transfer Capability, less Transmission Reliability Margin.

Gridco's view: The Inter-control area transmission system has not been defined in the present draft regulation. The same may be included under the definition clauses of Draft GNA regulations, 2017.

Regulation 2.1.(o) : “Exportable Capacity” means the generation capacity available with a captive generating plant for sale after accounting for the consumption by its captive user.

Gridco’s view:

When the captive generating plant is placed at a different geographical location than its consumption center, then the exportable capacity of such CGP would be total installed capacity less Auxiliary consumption. Hence the definition of Exportable capacity may be reframed as under

“Exportable Capacity” means the generation capacity available with a captive generating plant for sale after accounting for the consumption by its
captive user and/ generation capacity intended for wheeling of power to its plant located at non contiguous place.

By reframing the definition there will be no ambiguity for maximum exportable capacity for CGP as mentioned in Regulation 7.2.

**Regulation 2.1.(ii) “Transmission Reliability Margin (TRM)”** means the amount of margin kept in the total transfer capability necessary to ensure that the interconnected transmission network is secure under a reasonable range of uncertainties in system conditions.

**Gridco’s view** : The uncertainties related to the transmission system conditions & various contingencies which are mapped towards Transmission Reliability Margin should be quantified in both planning phase as well as operational phase. Without being too conservative, from prior experience of Posoco (i.e. by reviewing historical data, such as previous transmission system stress and the duration of such stress on major transmission facilities and major transmission emergencies experienced etc.), such quantification of Transmission Reliability Margin should be fixed which ultimately decides the access rights.

Gridco suggest necessary regulatory framework may be incorporated in the GNA regulation for assessment of potential risks by evaluating consequences of extreme contingencies from past experience.

**Regulation 2.1.(jj) “Total Transfer Capability (TTC)”** means the amount of electric power that can be transferred reliably over the inter-control area transmission system under a given set of operating conditions considering the effect of occurrence of the worst credible contingency.

**Gridco’s view** : The Inter-control area transmission system has not been defined in the present draft regulation. The same may be included under the definition clauses of Draft GNA regulations, 2017. In view of the consultancy report submitted by M/S Power Tech, Canada the calculation methodology
in the Indian context may be enumerated in the draft regulation to bring more transparency.

Since TTC value may vary (i.e. increase or decrease) when approaching the time of programme execution as a result of a more accurate knowledge of generating unit schedules, load pattern, network topology and tie-line availability, the detailed methodology may be included in the draft regulation or detailed procedure for both planning as well as operational horizon.

Moreover the worst credible contingencies which are to be considered in the TTC calculation may be included in the Regulation/ detailed procedure with due analysis of past grid incidents.

**Regulation 5.3:** STUs on behalf of distribution licensees and other intra-State entities seeking GNA to ISTS, shall apply for GNA every year for the 5 year period. The Application fee shall not be levied on STUs. STUs shall indicate quantum of GNA sought at each interconnection point of STU with ISTS.

**Gridco’s view:**

(i) If STU to apply for GNA on behalf of distribution licensees and other intra-State entities seeking GNA to ISTS, then going forward, to the extent, distribution licensees & intra-State entities fails to stick to their approved GNA, STU should not be penalized for their variation beyond permissible limit. Moreover the transmission charge of STUs being governed by respective state regulators, in the absence of respective back to back regulatory framework instituted inside state, STU should not be burdened with such variation liabilities on behalf of distribution utilities & intra state entities.
Presently Odisha has 36 no of interconnection points of STU with ISTS. & 1315.71MW of LTA. As proposed by the draft GNA regulation above, STU has to indicate quantum of GNA sought at each interconnection point of STU with ISTS every year for next 5 yrs. For any variation in load drawal on part of DISCOMs in side Odisha, there will be variation in the GNA quantum given by STU. More over distribution of LTA at all these 36 no. of points, for future 5 years, is prone to variation along with associated financial repercussions.

In view of the above difficulty, Gridco suggest that more clarification & elaboration in this regard may be provided in the GNA regulations with regard to consequences & liabilities arises out of such variation.

**Regulation 7.9.(e) :**

The Application for Stage-II shall be accompanied by a Bank Guarantee or Letter of Guarantee (BG or LG) @ Rs. 5 Lakh/MW for the purpose of bay implementation in accordance with the Bay Implementation Agreement with CTU. Bank Guarantee or Letter of Guarantee shall be kept valid till application for GNA is made alongwith applicable Access Bank Guarantee. The Application for GNA shall be made within 6 months of grant of Stage-II Connectivity failing which Application for Stage-II Connectivity shall be revoked and BG or LG for bay implementation as provided above shall be encashed.

**Gridco’s view :**

As per draft Regulation 2.1.(c)(ii), a renewable energy generating station having installed capacity of 50 MW and above individually or with an aggregate installed capacity of 50 MW and above through a lead generator is eligible to apply for connectivity.

As per draft Regulation 3.4, an Applicant seeking GNA to the inter-State Transmission System cannot apply for GNA without applying for Connectivity to inter-State transmission system or intra-State transmission system.
Hence in synergy with the regulation 2.1.(c)(ii), 2.1.(d) and 3.4 it will be appropriate that, the applicant, seeking Stage-II Connectivity, need to apply for GNA for minimum quantum of 50 MW within six months from the date of intimation of Stage-II connectivity grant, in default of which the Stage-II Connectivity should be cancelled.

Apart from above, keeping this minimum quantum of 50 MW for GNA application will ensure optimum & effective utilisation of the ISTS system created for such RE evacuation.

Further Gridco suggest that the amount of Bank Guarantee or Letter of Guarantee (which is at present @ Rs. 5 Lakh/MW) for the purpose of bay implementation in accordance with the Bay Implementation Agreement with CTU should be sufficient enough to recover the investment made in case default on part of RE.

**Regulation 7.25: O&M expenses of Dedicated Transmission Line:**

On completion of the dedicated transmission line the generator(s) shall be required to hand over the dedicated transmission line to CTU for the purpose of operation and maintenance. CTU shall be entitled to normative operation and maintenance expenses as per CERC Tariff Regulations. The line shall be under the operational control of CTU for all the purposes.

**Gridco’s view:**
The normative operation and maintenance expenses as per CERC Tariff Regulations should be paid by the Generator or the respective beneficiaries that particular Generator instead of loading such O&M expenses in PoC.

**Regulation 7.26: Dual connectivity to both CTU & STU.**

An “Applicant for Connectivity” may be connected to both inter-State transmission system and intra-State transmission system. In such cases, “Applicant for Connectivity” shall apply for Connectivity for demarcated quantum to CTU and STU such that total Connectivity quantum equals
installed capacity less auxiliary consumption. However commercial liability of generator including CGP towards ISTS shall be corresponding to the quantum proposed to be evacuated through CTU network. Applicant shall clearly indicate the quantum of Connectivity with inter and intra state transmission system in its application to CTU. CTU shall take confirmation from concerned STU regarding application for connectivity made for connectivity to intra-state transmission system before grant of Connectivity to ISTS. If such confirmation is sought by CTU, STU shall confirm the same within a period of 15 days.

**Gridco’s view:**
As per the definition provided in regulation 2.1.(c) the Applicant for connectivity include Generator (thermal > 250MW, CGP: EXPORTABLE capacity> 250MW, RE, Hydro) , Distribution Licensee with minimum load 250MW, consumer with minimum load 250MW.

Given the mandate provided in regulation 7.26, all the 3 categories, as applicant can now exercise their choice of availing dual connectivity both with STU & CTU. But this provision will be prone to the following issues.

(i) 1st of all only the generators as applicant are capped for total quantum of connectivity as demarcated quantum to CTU and STU such that total Connectivity quantum equals installed capacity less auxiliary consumption. But for other category of applicants namely Distribution Licensee & consumer there is no capping provision.

(ii) When Distribution Licensee & consumer are allowed to avail dual connectivity for the same amount of load, it will creates a situation of conflict of interest between CTU & STU resulting, among others, in adverse Commercial impact as revenue loss on part of STU.

(iii) The expenditure/ investment made by STU towards its obligatory function (as mandated in EA 2003) for “development of an efficient, co-ordinated and economical system of intra-State transmission lines for smooth flow of electricity from a generating station to the load centres” will be made stranded by such provision of dual connectivity.
(iv) Hence the adverse impact of dual connectivity in the form of financial liability burdened on STU (Revenue loss from existing DISCOM/ CONSUMER, Stranded capacity in Intra state) has to be compensated adequately as STU has already invested in creating the required Intra state transmission infrastructure for state load evacuation.

(v) More over without clear guideline on whether such entity will be covered under Regulation 2.1.U (Intrastate entity) or regulation 2.1.bb (Regional entity), it would also invite complexity with regard to system control operation (as far as operational hierarchy of SLDC or RLDC are concerned), settlement of energy accounting in an integrated system injection /drawaloperation.

To address aforesaid key concerns, GRIDCO suggest, it would be prudent if CTU not only take confirmation from STU regarding application made for intrastate connectivity rather Seek No objection Certificate from STU while considering connectivity to CTU and dual connectivity can only be granted after obtaining the consent of respective STU.

**Regulation 7.39 : Connectivity by a Captive Generating Plant**

A Captive Generating Plant (CGP) may have surplus capacity which it may intend to sell on long term or medium term or short term basis or it may seek to evacuate power from CGP to captive user by using ISTS. A Captive Generating Plant (CGP) shall apply for Connectivity for a quantum of maximum exportable capacity proposed to be connected to ISTS.

**Gridco’s view:**

In case of CGP having Captive consumption load at a different geographical place than its generating unit, the maximum exportable capacity for applying connectivity to ISTS should be treated as other generators i.e. installed capacity less auxiliary consumption.
Regulation 8: Construction of Dedicated Transmission Line:

8.1 The dedicated transmission line from switchyard of generating station or Solar Power Park Developer or Wind Power Park Developer or Wind-Solar Power Park Developer to the pooling station of the transmission licensee (including deemed transmission licensee) shall be developed and owned and by the applicant and shall be operated by CTU as per Regulation 7.25. The specifications for dedicated transmission lines shall be indicated by CTU while granting Connectivity.

Gridco’s view:

It is an welcome & corrective stride in line with the statutory provision prescribed by Electricity Act 2003. As per Section 10 of Electricity Act 2003 it is a duty of generating company to construct dedicated line. & it is the responsibility of the generator to match the commissioning of dedicated line with the commissioning of its generating station.

Regulation 8.2: Maximum length Construction of Dedicated Transmission Line:

CTU shall plan the system such that maximum length of dedicated transmission line shall not exceed 100 km from switchyard of the generating station or pooling station of the solar power park or wind power park till the nearest pooling substation of transmission licensee for “Applicant for Connectivity” in accordance with Regulation 2(1)(c).

Gridco’s view:
The rationality of Maximum length of dedicated line to be capped at 100 Km may be provided.

Regulation 8.4: Transmission charge of Dedicated Transmission Line through Coordinated Transmission Planning:

Where the dedicated transmission lines have already been constructed or are under construction by ISTS Licensee (including deemed licensees) under coordinated transmission planning:

Gridco’s View on Draft GNA regulation
i. The transmission charges for such dedicated transmission lines shall be payable by the concerned generating company to the transmission licensee from the date of COD of the dedicated linetill operationalisation of GNA of the generating station in terms of Regulation 22 of these Regulations;

ii. After operationalization of GNA, such dedicated transmission line shall be included in the POC pool and payment of transmission charges for the said dedicated transmission line shall be governed as per the CERC (Sharing of inter-state transmission charges and losses) Regulations, 2010 as amended from time to time.

**Gridco's view :**

Section 10 of Electricity Act 2003 casts as follows:

"Section 10. (Duties of generating companies): --- (1) Subject to the provisions of this Act, the duties of a generating company should be to establish, operate and maintain generating stations, tie-lines, substations and dedicated transmission lines connected therewith in accordance with the provisions of this Act or the rules or regulations made thereunder."

From the above, it is mandatory on part of generator to construct dedicated Transmission line & it is the responsibility of the generator to match the commissioning of dedicated line with the commissioning of its generating station for optimum resource planning. The cost of such dedicated Tr line to be included in the project cost so that only the beneficiaries of that generator pays the cost towards such Dedicated Tr line.

In view of the above Gridco suggest as under:

i. The proposal of including the Payment of transmission charge towards such dedicated Tr line in PoC pool is absolutely unjust & improper as the dedicated Tr line being designed/constructed for power
evacuation from particular generating station(s) which will subserve only specific group of beneficiaries instead of all DICs. Hence apart from those specific users/beneficiaries, other DICs/users should not be burdened with the transmission charge of such dedicated Tr line & more over it will violate the spirit & mandate of EA 2003.

ii. Generators as such will be interested to pursue an option to get rid of responsibilities of constructing dedicated Tr line & including such investment in their project cost so as to cast themselves in merit order dispatch list & by such major chunk of tr line will be grouped under coordination Tr planning. To get rid of ambiguity the term **Coordinated Transmission Planning** may be specifically defined clearly in this context.

iii. Further, in case CTU envisages dedicated lines as lines which should be required to enhance the system reliability even if generation project does not come up or is delayed, CTU to objectively specify in what way such dedicated line will enhance reliability along with the cost benefit analysis there of, inorder to incorporate such line under coordinated transmission planning.

iv. Only when the dedicated Tr line is beneficial from reliability point of view, the same may be included in the reliability support charge of the respective beneficiaries who are gained in terms of reliability support from such line.

**Regulation 19.1 : Access Bank Guarantee :**

19.1 GNA Applicants other than STUs shall be required to submit Access Bank Guarantee of Rs. 20 lakh/MW. Access Bank Guarantee for renewable energy generating station or Solar Power Park Developer or Wind Power Park Developer or Wind-Solar Power Park Developer shall be Rs. 10 lakh/MW. The Access bank guarantee shall be in favour of the nodal agency, as per the FORMAT-GNA-4.
19.2. STUs shall not be required to furnish Access Bank Guarantee. Any intra-State entity desirous of availing GNA to ISTS through STU shall apply for the same to STU along with applicable Access Bank Guarantee in favour of CTU. STU shall transfer such Access Bank Guarantee to CTU which shall be dealt with in accordance with these Regulations with respect to return of Access Bank Guarantee or as relinquishment charges.

Gridco’s View:

In case the Transmission licensee has already commissioned its transmission system and the generators have not performed its part of the obligations under GNA regime, then, it is upon the defaulting generators to bear the transmission charges till the operationalization of GNA/LTA, and transmission charges for such period should not be included in the PoC pool. But in case the generator didn’t come up at all & the Transmission licensee has already invested for the required infrastructure, then whether such meagre amount of Access bank guarantee would be sufficient enough towards recovery of such investment made by transmission licensee?

Recovery of transmission charge of such sunk investment should not be burdened on other DICs by pooling it in the PoC pool.

In view of the above, Gridco suggest to modify the Access bank guarantee to be sufficient enough towards recovery of such transmission charges in case of defaulting Generators.

Regulation 19.3: Access BG during operationalization of GNA

19.3. The Access Bank Guarantee shall be kept subsisting for 5 years from the date of operationalisation of GNA. After operationalisation of GNA, Access BG equivalent to 1/5th of amount shall be returned back to the Applicant till 4th year. The amount equivalent to 1/5th of Access BG shall be kept subsisting till the end of 12th year as security towards
relinquishment charges. The Applicant shall submit revised Access BG accordingly.

Gridco’s view:

Since Access BG is kept as security towards default on part of GNA applicant / in case of relinquishment, Gridco proposes to return the half of the Access BG in 7 years (considering LTA period of 7 years) & other half to be kept as security towards relinquishment charges.

Regulation 35.: Sale of surplus power by distribution licensee

35.1 : In case a distribution licensee intends to sell surplus power available to it from its share in the generating stations located within the State, it may seek injection GNA for the said quantum.

35.2 : In case a distribution licensee intends to sell its contracted power from an ISGS to any third party, the distribution licensee shall be allowed to sell power at the injection point of that ISGS.

Gridco’s view:

The aforesaid clause is definitely a welcome pathway to remove the existing fallacy of loading double transmission charge & transmission loss in the transaction. When the Distribution licensee can sell its contracted power from an ISGS to any third party at the injection point of that ISGS, the price responsiveness of the market will definitely improve. Hence Such provision is positively a corrective step towards providing a more competitive & vibrant electric market.

However Gridco suggest that such provision should not be limited only to ISGS. The same principle to be applicable for the Generators other than ISGS also.