

Comments and suggestions on Draft TNERC (Terms and Conditions for Green Energy Open Access) Regulations, 2024

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Date: 05-07-2024

Tamil Nadu Electricity Regulatory Commission (TNERC) has proposed new regulations for the implementation of Green Energy Open Access (GEOA) rules in the state, and is a welcome initiative. Effective implementation of these rules will greatly benefit Tamil Nadu's power sector and economy by allowing consumers to access power at competitive rates and increase green energy uptake. Some positive proposals include the retention of minimum eligibility limit of sanctioned demand of 63 kVA, energy accounting on a 15-minute time-block basis, and disallowing banking during peak hour blocks.

Considering this, Prayas (Energy Group)'s or PEG's comments and suggestions in this matter highlight areas where more clarity is needed to ensure smooth implementation and also suggest additional changes that can be made to safeguard the interests of the DISCOMs, whilst promoting a competitive environment for alternate sources of supply.

1. Aspects of rules not incorporated in the draft regulations

Even though specified in the GEOA rules, TNERC has not incorporated certain provisions from the said rules. To avoid potential litigation issues on aspects of rules which are not implemented in the regulations, the finalised regulations should either incorporate the provisions effectively or provide clarity in an explanatory memorandum, on the following:

1.1 Provision of multiple connections

The rules allow for a consumer having multiple connections aggregating to 100 kW or more in the same electricity division to avail open access. This provision has been notified in the second amendment to GEOA rules in May 2023. This has not been incorporated or addressed in the draft regulations. Consumers would need clarity regarding absence of this revision - which the Commission should explicitly address. Further, if the Commission decides to incorporate this provision in the final regulations - the related processes for such aggregation around registration, metering and energy accounting, treatment of banking, standby, scheduling, etc. will also need to be specified.

1.2 Ceiling on Cross-subsidy surcharge (CSS)

Proviso 1 of 9(2) of the MoP GEOA rules specifies that for a GEOA consumer “purchasing green energy from a generating plant using renewable energy sources, shall not be increased, during twelve years from the date of operating of the generating plant using renewable energy sources, by more than fifty percent of the surcharge fixed for the year in which open access is granted.”. This provision may have been incorporated in the rules to promote investor certainty. However, this provision will prove to be challenging and complex to monitor and implement. For example, what will happen in case the OA consumer changes their source?

At the same time, this provision is a great opportunity to encourage longer term open access. A simpler to operate CSS mechanism can instead be adopted. Here, CSS could be fixed at an adequate rate to compensate DISCOMs in the year in which OA is availed, however, it should not increase by more than 50% for 12 years from the beginning of OA. Thus, as short-term open access consumers will apply for OA each year, they will have to pay CSS which is in force at the time of the application, but long-term consumers can benefit from the clarity of a 50% ceiling. This will be an effective way of operationalising the ceiling proposed in the MoP rules without the added operational challenge of linking it to the commissioning date of the generator.

1.3 Exemption on additional surcharge (AS)

Provision 2 of 9(2) of the rules gives an exemption to AS for GEOA consumers already paying fixed charges. This has not been incorporated in the draft regulations.

Over time, with the reduction in back-down thermal capacity, AS should also be phased out. Alternatively, AS can be levied for other services. For example, it can be a Rs/kVA charge for RE capacity contracted beyond the contract demand, as is being done in Gujarat.

2. Definition of Green energy

As per draft regulation 3(1)(i), in the definition of ‘Green Energy’, it is not clear why PSP is included as RE. PSP can be part of storage, with the condition that the energy used for charging should be sourced from RE. Therefore, we submit the following definition with the required change:

‘Green Energy’ means the sources of energy as defined in the Regulation 2(1) (g) of the Power Procurement from New and Renewable Sources of Energy Regulations, 2008 issued by the Commission and Hydro Power Projects (including small hydro projects) and storage (*including Pumped Storage Projects*, if the storage uses renewable energy) or any other technology as may be

notified by the Government of India from time to time and shall also include any mechanism that utilises green energy to replace fossil fuels including production of green hydrogen or green ammonia as per provision of clause G of sub-rule (2) of rule 4 of Green Energy Open Access Rules, 2022.

3. Eligibility criteria for applying for GEOA

As per draft regulation 12, OA shall be allowed to only EHT & HT consumers (with minimum contracted demand of 63 kVA and above). Further, as per the MoP GEOA rules, there shall be no load limit on captive. However, for captive, the Commission should clarify that the connectivity shall only remain at a HT level. There should not be any OA or Captive connected to the LT network.

4. Categorisation of open access users

4.1 Duration of open access terms

Draft regulation 10 categorises OA users as per their term in the following manner:

- Long-term GEOA: Period exceeding 12 years but not exceeding 25 years
- Medium-term GEOA: Period exceeding 3 months but not exceeding 3 years
- Short-term GEOA: Up to one month at a time

This categorisation leads to long gaps in between for the applicants. For eg. A consumer wanting OA for up to 3 months, or up to 5 years – will then have to make repeated applications. Even from a DISCOM planning perspective, this is not ideal. Hence, we suggest the following categorisation:

- Long-term GEOA: Period exceeding 7 years but not exceeding 25 years
- Medium-term GEOA: Period exceeding 3 months but not exceeding 5 years
- Short-term GEOA: Period up to 3 months

4.2 Discourage repeat applications for Short-term GEOA

Repeated applications for short-term OA, for the benefit of the distribution licensee, can be discouraged. One way to discourage could be progressive increase in STOA charges for transmission and wheeling. In case of repeat short-term open access transactions during a financial year, the applicable charges should increase progressively till the third such transaction. For and

after the 3rd transaction, the applicable charges should be two times the charges approved by the regulator. A similar provision has been approved by the Maharashtra ERC¹.

4.3 Minimum-term and renewal of medium-term and long-term OA agreements

The Commission can also include a provision for minimum-term and renewal of the Open Access agreement, in line with the Telangana regulations².

Here, the agreement between a long-term OA user and the licensee may be renewed for a further term of 2 years or more, without the requirement of a fresh OA application, on receipt of at least 3 months' notice from the user to the licensee or SNA, before the expiry of the agreement.

Similarly, the agreement between a medium-term OA user and the licensee may be renewed for a further term of 1 year or more, without the requirement of a fresh OA application, on receipt of at least 3 months' notice from the user to the licensee or SNA, before the expiry of the agreement.

5. Charges for GEOA

5.1 Sunset clause for concessional transmission and wheeling charges

The Commission continues to extend concessional transmission/wheeling charges for intra-state transactions. Given that renewable energy sources are now flourishing on their own economic proposition, we urge the commission to no longer extend concessional treatment for intra-state transactions either, or specify a clear sunset clause that ends the existing concessions by the end of December, 2024.

5.2 Cost-reflective standby charges

Draft regulation 15 mentions the OA charges applicable, however, does not detail the methodology and specifics of each charge. Here, standby charges could be an avenue to levy a charge that is cost-reflective and sufficiently compensates the DISCOMs. The MoP rules specify a ceiling of 25% of the energy charges. Maharashtra ERC, for example, levies a four-tier standby charge³ for Captive users (25% of applicable demand charges when standby capacity is not utilised, 100% of applicable demand charges when standby capacity is not used under planned or unplanned shutdown, 150%

¹ As per MERC (Distribution Open Access) (First Amendment) Regulations, 2019, Section 9: Amendment to Regulation 14 of the Principal Regulations, 14.1 (v).

² Regulation 17.4 of [TSERC Terms and Conditions of Open Access Regulations, 2024](#).

³ As notified in MERC Order 322 of 2019

of applicable demand charges on excess demand and 200% of applicable demand charges for those who do not opt for standby arrangement).

5.3 Parallel Operation Charges (POC)

Draft regulation 28 (2) specifies that provisions of TNERC (Grid connectivity and intra-state open access) Regulations, 2014 which are not inconsistent with provisions under these regulations or not covered under these regulations shall also be applicable. Regulation 26 of the existing TNERC regulations levies POC on Captive Generating Plants. However, this charge is not part of the charges listed for GEOA consumers in draft regulation 15. The Commission should clarify whether POC would be applicable for green energy captive generating plants availing parallel operation with the grid.

6. Banking framework

Within the banking framework, we commend the Commission for incorporating a forward-looking provision of energy-accounting on a 15-minutes time block basis. We make a few suggestions for a more balanced banking framework, keeping DISCOM interests in mind, as follows:

6.1 Banking charge

As per the APTEL order dated 28th January 2021⁴, *"no serious study based on scientific data has been initiated or undertaken by various State Commissions, including TNERC, to evolve a fair package on power banking for renewable sources of energy..."*. The draft regulation 16 (2) specifies an in-kind banking charge of 8% of the energy banked. However, it remains unclear whether a rigorous study was undertaken to arrive at such a charge. The Explanatory Statement cites the FoR Model Regulations for adopting the charge, however an 8% in-kind charge on energy banked remains highly concessional in nature, and fails to sufficiently compensate for the costs incurred by the DISCOM to provide the banking facility. This concession gets socialised as higher costs, passed on to the consumers of the DISCOM.

Therefore, we urge the Commission to undertake a study to arrive at a more balanced banking charge. Prayas (Energy Group) undertook a study⁵ for the state of Karnataka, and based on data analysed from 120 consumers and 68 pooling substations for wind and solar, recommended the

⁴https://aptel.gov.in/sites/default/files/Jud2021/A.Nos.%20191,%20195,%20265%20of%202018%20&%20406%20of%2019_28.01.21.pdf

⁵ <https://energy.prayaspune.org/our-work/research-report/estimating-impact-of-renewable-energy-wheeling-and-banking-arrangement-on-karnataka-escoms>

banking charge to be levied at 10-12% in-kind on the entire energy wheeled (not energy banked) or 0.3-0.4 Rs/kWh of wheeled energy to adequately compensate DISCOMs.

6.2 Un-utilised surplus banked energy

As per draft regulation 16 (5), the un-utilised surplus banked energy at the end of the month shall be sold to the distribution licensee at the rate of 75% of the respective RE tariffs applicable as per orders; or at 75% of the latest discovered bid tariff for normal captive users. An internal analysis undertaken by Prayas (Energy Group) shows that all of the SERCs (except ERCs of Andhra Pradesh, Odisha and Chhattisgarh (for projects commissioned till December 2023)) that have notified GEOA regulations till now, do not compensate for any unutilised banked energy, and such energy lapses at the end of every month, with the generating station being entitled to get REC to the extent of lapsed banked energy. Compensation for unutilised banked energy imposes additional costs on the discoms, and makes the service of providing banking facility even costlier.

6.3 Restriction on banking

As per draft regulation 13, 'energy banked can be adjusted during any block period other than peak hour blocks during the banking cycle of one month.' Here, we suggest the following change:

Energy banked can be adjusted during any block period other than peak hours, *as identified in the ToD schedule, and amended by the Commission from time to time*, during the banking cycle of one month.

Further, the draft regulation goes on to mention – "Provided further that the energy injected by the Pumped Storage System/Battery Energy Storage System (BESS) shall be adjusted in any time block including peak hour blocks". The inclusion of this particular proviso is unclear, as it is not clear why will PSP or BESS inject more energy than needed.

7. Metering requirements

As per draft regulation 18, all GEOA generators/consumers shall have to abide by the metering standards of CEA. Given that energy accounting will be undertaken on a 15-minutes time block basis; the Commission should explicitly prescribe Special Energy Meters (SEMs) with the capability of 15-minute energy accounting for all GEOA consumers.

8. Communication facility

Draft regulation 21 mentions that GEOA consumers shall have requisite communication systems in place to facilitate seamless communication of information from generator to SLDC, Sub-LDC, Distribution licensee etc, on real time basis. The Commission is urged to specify what qualifies as 'requisite' communication systems. Further, the Commission can differentiate between requirements for, say a consumer with a sanctioned demand of ≤ 100 kW versus a consumer with a sanctioned demand of ≥ 1 MW. This should be considered as the SLDC will only be using data with consumers with a sanctioned demand of 1 MW for energy accounting and real time grid management.

9. Publication of Data and Information

Draft regulation 20(1) specifies that the SLDC, in its annual and monthly reports, shall post information regarding status reports, floor rate for bidding in case of congestion, peak load flows on EHV and average losses. Apart from this, it is important for the SLDC to maintain a record of application status and pending applications. TNSLDC should maintain monthly reports, in line with the practice of Maharashtra SLDC⁶, for tracking the Open Access Application status within the state. The following format is proposed for the same:

Name of Consumer/ Generator	Period of Open Access Granted				Open Access Capacity Approved	Date of application received	Date of application admitted	Status (Approved / pending / rejected)	Reason (for pending / rejected)
	Time duration		Date duration						

Apart from this, the licensees and SLDC should publicly upload data regarding the consumption of green and non-green open access consumption (in MUs), categorised as per their term (short, medium, long), on their websites, as an annual report. This will help stakeholders track the amount of sales migration taking place within the state, aiding a better assessment of the growth in electricity sales of Commercial and Industrial (C&I) in the future. This can be collected in the following format:

⁶ <https://mahaslDC.in/home.php/open-access/monthly-reports/>

Consumer related parameters	Energy related parameters	Licensee revenue related parameters
<ul style="list-style-type: none"> ● Number of open access connections <ul style="list-style-type: none"> ○ Based on duration of contract ○ Full or partial open access ○ Which have reduced contracted demand ● Number of applications processed during the period ● Number of pending applications ● Average delay (in days) from prescribed timelines for various milestones 	<p>Open access sales:</p> <ul style="list-style-type: none"> ● From generators within and outside the state ● From RE and non-RE sources ● Day-ahead, short-term (other than day ahead), medium-term and long-term open access ● Captive units wheeled ● On-site captive consumption 	<p>Revenue collected for:</p> <ul style="list-style-type: none"> ● Wheeling ● Transmission ● Additional surcharge ● Cross-subsidy surcharge ● Standby charges ● SLDC charges ● Concessions provided, if any
<p>Total number of open access consumers and captive consumers</p>	<p>Total open access sales and captive sales</p>	<p>Total revenue from open access and captive</p>