CEA: Proposed procedure for verification of captive status of such generating plants, where captive generating plant and its captive user(s) are located in more than one state [Draft]

CEA notified a draft on "Proposed procedure for verification of captive status of such generating plants, where captive generating plant and its captive user(s) are located in more than one state" on 1st September, 2023.

Objective: To rigorously assess and determine the captive status of generating plants and their captive users scattered across various states. In this context, Captive Generating Plants (CGPs) and their users must adhere to certain specific criteria to preserve their captive status as per the requirements of Rule 3 of the Electricity Rules, 2005.
Captive status in subsequent years is determined by total generation between 1st April and 31st March of next year.

Important Definitions:

1. **Captive Generating Plant:** Power plant primarily generates electricity for the owner's use.
2. **Captive User:** End user consuming power generated from the captive plant.
3. **Ownership:** At least 26% equity shares with voting rights to be held by captive users.
4. **Special Purpose Vehicle (SPV):** Legal entity that owns, operates and maintains the generating station with no other business.
5. **Cooperative Society:** Society registered and incorporated under the Cooperative Societies Act.

Procedure to determine captive status:

1. CGP and captive users to submit applications and documents/ affidavits to CEA by 30th September each year.
2. The following criteria are to be verified:
   a) Ownership criteria - 26% equity shareholding with voting rights.
   b) Consumption criteria - 51% of gross annual generation consumed by captive users.
   c) Open access quantum permitted and utilised for captive consumption.
3. Captive status gets communicated within 2 months of receipt of a complete application.
4. Non-compliance in any year leads to loss of captive benefits for that specific year.

The document can be accessed here.

CER Opinion

1. **Calculation of Equity for Special Purpose Vehicle (SPV):** In accordance with Clauses 6(6.7, 6.8, 6.9) and 9(9.1)(9.1.4), the following suggestions may be implemented for the specified SPV.

   An SPV may have multiple units, which may have multiple with some common users across units. **Under such circumstances, calculation of equity at the corporate level (SPV) or for the respective units would present different results**.
   In case of different units are set up across time, a captive user may have right proportion of equity holding as per the investment undertaken at that time.
   A subsequent investment in another unit at a higher/lower investment cost, would alter the proportional ownership of the captive users having capacity share in the first unit. The issue would get further complicated in case a captive user has share of capacity in both the units.
   Such differentiation would require unit specific data, which may have certain challenges.

   The following example illustrates the above suggestion:
   Consider the allocation of entities denoted as 'A,' 'B,' 'C,' and 'D,' each having captive shares in 250 MW units 1 and 2 respectively. It is assumed that the unit 2 is set up after unit 1, say after 3 years. Both units are

owned by the same SPV. It is further assumed, for simplification, that both units have 100% equity investment. The arguments would remain the same in case of differential debt components.

- For **unit 1**, the overall equity share and proportional equity share of captive users is as per the Electricity Rules (see table below).

Assumption of Capital Cost = Rs 1000 Cr. & Equity = 26%					
Entities	**Captive Capacity Shares (MW)**	**Captive Share (%)**	**Equity Share (Cr.)**	**Equity Share (%)**	**Unit-1**
A	100	40	104	10.4	
B	120	48	124.8	12.48	
C	30	12	31.2	3.12	

Note: Equity share for A = (100/250*1000*26%) = Rs. 104 Cr.

Table 1: Calculation of Equity share for Unit-1

- **Unit 2** is set up, after 3 years, with an investment of Rs. 1200 Crore. Captive user C has share in the second unit as well. The overall equity share and proportional equity share of captive users in unit 2 is as per the Electricity Rules (see table below).

Assumption Capital Cost = Rs 1200 Cr. & Equity = 26%					
Entities	**Captive Shares**	**Captive Share (%)**	**Equity Share (Cr.)**	**Equity Share (%)**	**Unit-2**
C	50	20	62.4	5.2	
D	200	80	249.6	20.8	

Table 2: Calculation of Equity share for Unit-2

- If we look at the SPV as a single entity, the calculated equity share is as tabulated below. The monetary value of equity investment is the same as in the case of individual units tabulated above. Equity investment of C in unit 1 (Rs. 31.2 Cr.) and in unit 2 (Rs. 62.4 Cr.) totals Rs. 93.6 Cr.
- If we look at the SPV as a single entity, the calculated equity share is as tabulated below. The monetary value of equity investment is the same as in the case of individual units tabulated above. Equity investment of C in unit 1 (Rs. 31.2 Cr.) and in unit 2 (Rs. 62.4 Cr.) totals Rs. 93.6 Cr.

- While **unit 3** is set up, after 3 years, with an investment of Rs. 2200 Crore. Here, Captive user C 'both' has share in the third unit. The overall equity share and proportional equity share of captive users in unit 3 is as per the Electricity Rules (see table below).

Entities	**Captive Shares (MW)**	**Captive Share (%)**	**Equity Share (Cr.)**	**Equity Share (%)**	
A	100	20	114.4	5.2	
B	120	24	137.28	6.24	
C	30	6	34.32	1.56	**Unit-3**
C	50	10	57.2	2.6	
D	200	40	228.8	10.4	

Note: Equity share for A = (100/500*2200*26%) = Rs. 114.4 Cr.
Equity share for C = (80/500*2200*26%) = Rs. 91.52 Cr.

Table 3: Calculation of Equity share for Unit-3

The respective clauses can thus be modified to provide for calculation of the **'historical equity holding in the respective units'**. **The absolute investment in equity required for the respective units should be the qualification criteria for equity holding, not for the SPV as a whole.**

Note that the amount of equity held by respective entities while considering SPV as a whole is either higher or lower than in the case of the same being determined separately for the two units. For example, it is Rs. 114.4 Cr. vs Rs. 104 Cr. is Rs. 93.6 Cr. Whereas that at the SPV level is Rs. 91.52 Cr. This clearly demonstrates that **equity proportions under an SPV umbrella would change depending on the sequencing of investments at different costs. Hence, verification for equity should ideally be done with respect to each generating unit.**

Such anomaly would not arise in case of capacity shares.

2. **Modification of Captive Power Ownership and Consumption Provision with share Proportionality:** In accordance with Clauses 6(6.8) and 9.1(9.1.3), the following modification may be implemented for Captive Power Ownership.

   The clause may be modified (by including explanation) as, "The captive users shall consume not less than 51% of the net electricity generated on an annual basis for captive use in proportion to their respective share in the power plant within the variation not exceeding **one percentage point**. **For example, a captive user, whose share in ownership of the captive power plant is 10%, should have a share in the net electricity generation within the range of 9% and 11% on an annual basis.**"
   (emphasis added for suggested changes)

   The differentiation percent and percentage point is important for such cases. To ensure that the intended clause is not misunderstood, the suggested change with the example would provide necessary clarity.
   Similar changes to be adopted across clauses identified herein.

3. **Equity Ownership Verification and Consumption Frequency for CGP on quarterly basis:** In this draft Clause, "**7.** *Procedure for verification of Status of CGP and Captive users:* ***7.1*** *Verification of status of CGP and Captive users shall be* ***on annual basis***.
   (emphasis added)

   Annualised basis to verify equity ownership does not account for change in ownership within a year. It is suggested that the **verification of ownership and Consumption of energy for Captive Generating Plants (CGP) should be done on quarterly basis**.

   The below example illustrates the suggested approach:

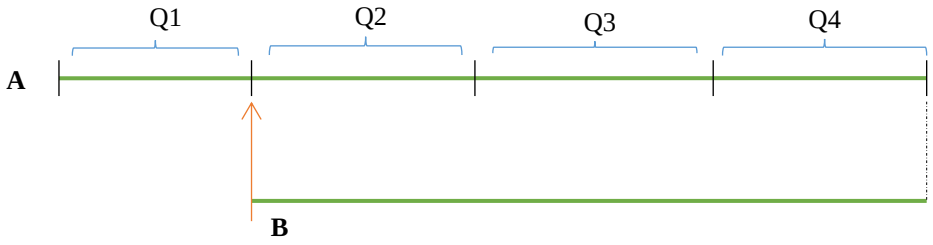

Figure 1: Timeline for A & B ownership

- Let us consider a scenario where entity **A** maintains its equity holding for the entire year across all the four quarters. Entity **B** joins at the beginning of the 2nd quarter, satisfying all criteria for the three remaining quarters but not for the full year basis as explained below.
- In such case, captive user B fails to comply with the requirements of captive status on 'annual basis' and thus becomes ineligible as a captive user.

- **Since each investments are not expected to take place at the beginning of each financial year, quarterly basis for equity verification would be more suitable.**

4. **Require amendment in Captive Generating Plant:** According to the Draft Clause No. 4.2 of 3(3), *"The Electricity Rules, 2005 provides the following requirements for a Captive Generating Plant:* ***3.*** *Requirements of Captive Generating Plant…..* ***(3) The captive status of such generating plants,*** *where captive generating plant and its captive user(s)…".*
(emphasis added)

   The **"Captive generating plant"** is being referred everywhere in the draft instead of **"Captive generating unit(s)"**. Interchangeability of the two may be clarified as per applicability.

5. **Verification of End use by Captive users:** According to the specified Clause No. 4.2 (3) (1)(b), "***4.2*** *The Electricity Rules, 2005 …:* ***3.*** *Requirements of Captive Generating Plant: Explanation: -* ***(1)*** *For the purpose of this rule. -* ***(b)"captive user" shall mean the end user of the electricity generated in a Captive Generating Plant and the term "captive use" shall be construed accordingly:".***
(emphasis added)

   The Electricity Rules, 2005 qualifies a user as a captive user on the basis of it being the 'end user'. A variety of cases would highlight that generation side scheduling is more appropriate than 'end use' measured at the consumer end.

   The calculation for 'end use' for a consumer should be recorded on the basis of the <u>energy scheduled from the captive unit</u> rather than that recorded at the end of the user, which would exclude transmission loss.

   The below example illustrates the suggested approach:
   Difference between drawal and schedule may influence qualification of a captive power plant.

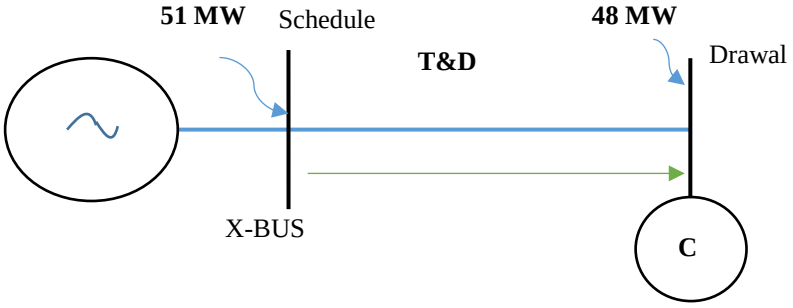

Figure 2: Verification of schedule on Bus Bar

- To ensure that pseudo schedules are not generated, analysis of block-wise data of captive plants/ units may help reveal such a behavior.

- Low DSM charges applicable for the renewable energy based captive plants, may incentivise such a behavior. Gradual alignment of the applicable deviation settlement mechanism (DSM) for RE would address the same.

6. **Captive consumer with Open Access Consumption (Non-captive):** Verification from plant schedule, further illustrated with the example below.

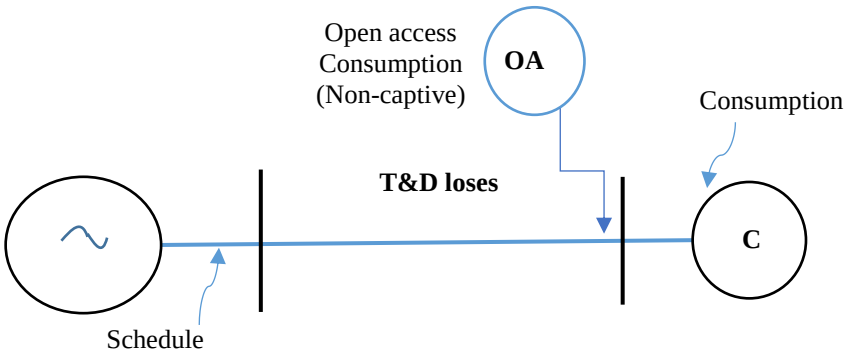

Figure 3: Non-captive open access consumption

- A captive user may also import electricity through open access from non-captive sources (e.g. trading or PXs) and/or from the local distribution company using the same import meter. In such cases, apportionment of consumption to a captive source is not feasible. This further strengthens the argument in favour of use of **schedule of captive plant for calculation of proportional consumption of electricity**.
- Do note that in case of multiple captive users, the captive unit would report scehdule with respect to each such user and can hence be apportioned accordingly.
- Applicability of DSM, if any, would be subject to the regulation of the respective SERC.

7. **Quarterly Verification for related Subsidiary and Holding company Energy Consumption:** In accordance with Clauses 6(6.1)(6.2) and (6.3), the given suggestion may be implemented for the holding company.

   - Based on the above comment, schedule from energy storage system and that towards a subsidiary to be accounted for calculation of energy share.
   - Verification of subsidiary and holding company also needs to be undertaken on a quarterly basis to ensure eligible 'consumption' by such related party users.

8. **Equity Ownership Criteria:** According to the Draft Clause No. 6(6.7), "*...26% of the proportionate paid up **equity share capital** with voting rights as per illustration given at clause…".*
   (emphasis added)

   Criteria for equity ownership should be on the basis of the equity capital '<u>subscribed to</u>' and '<u>fully paid for</u>'.

   Above suggestion illustrates below:
   Fully paid equity ensures actual ownership right of a captive user. The data formats attached do refer to 'paid for' data. The same should be incorporated in the respective identified clauses as well.

9. **Quarterly Ownership Verification:** In accordance with Clauses 8(8.2.1)(a)(c)(d) and 8(8.2.2)(a)(i)(iv), the suggestion may be implemented for ownership of captive users.

   Requirement of ownership on an annual basis, or throughout the year does not account for change in ownership affected for part of the year. As explained earlier, **quarterly basis for ownership verification would be more suitable.**

10. **Verification of CGPs in multiple states:** According to the draft Clause No. 5(5.2), "**5.2** *The Verifying Authority shall verify the captive status where CGP* ***is located in one State*** *and at least one of its Captive users…."*
(emphasis added)

    Verification of CGPs located in multiple states under same ownership (AOP, cooperative or SPV) should be provided for.

    Above suggestion is illustrated below:
    An SPV may have plants located in more than one state in which CGP can be located in two or three different places. While the clause refers to *'its captive users located in another state'*, it does not provide for captive plant units located across multiple states.

11. **Pure Holding Company may not have its end use:** Draft Clause No. 6(6.3) states that, "*The consumption of electricity by a* ***holding company*** *of a company which is a Captive user shall also be admissible as captive consumption by the Captive use".*
(emphasis added)

    The holding company may not have any **'end use'**. It is often noted that such holding company are mere financial structure for ownership of multiple companies within a group.
    The clause should clarify that such consumption by the holding company should be on its own account and can not be traded further.

12. **Emphasising Registrar of the company (ROC) notifications in the Scrutiny Process:** Draft Clause No. 6(6.4) states that, "*….. a statement having the details of change in the ownership structure along with the relevant documentary evidence shall be submitted to the Verifying Authority along with the submission of application for verification of the status of CGP and Captive users."*

    This Illustrates below:
    For better cross-verification, information "**as filed with the supporting documents to the Registrar of the company (ROC)**" may be sought. Specifically, for changes in ownership, it is crucial to verify whether such changes have been duly informed to the ROC.

13. **Modification of statement for the Affidavit requirement for CGP and Captive Users:** Draft Clause No. 7(7.3) states that, "….*The CGP and Captive users shall furnish an affidavit not after 30th September as per format enclosed at Schedule I to the Verifying Authority enclosing….".*

    The statement in clause 7.3 can be modified as "The CGP and Captive users shall furnish an affidavit **on or before 30th September,** as per format enclosed at **Schedule I,** to the Verifying Authority enclosing therewith the details as specified in the format(s) regarding their annual electricity generation, captive user-wise consumption and equity share holding during the previous year."

14. **Need to add "Subsidiary Ownership" under the definitions:** According to the draft Clause No. 3(3.1), "*In this procedure, unless the context otherwise requires…."*

    This would also need to be verified on a quarterly basis.

    The above suggestion Illustrates below:
    Data formats also need **to provide for the data related to subsidiary status as well.**

15. **Uniform Reporting of Ownership changes 'Quarterly Obligation':** According to the draft Clause No. 8(8.2.2)(b)(v), "*8. Verification of the ownership criteria of CGP, as …: 8.2.2. Required documents for verification of ownership: (b) Where the generating plant is owned by a Co-operative Society: (v) A copy of the Resolution passed by the General Body authorizing….."*

    There needs to be a uniformity for **reporting material change in ownership for all forms of ownership**

including cooperative plants, AOP and SPV, as well as for subsidiary and holding company status.

Such reporting should be obligated at the end of each quarter to align with the quarterly verification of data for other purposes.

The above suggestion Illustrates below:
As, all the formats (Format-I & Format-II) that are included in the draft document are going to be inferred either at the end of the year or end of the quarter (in case the suggestion provided herein is accepted).

16. **Uniform Definition for 'Net Electricity Generation':** In accordance with Clauses No. 8(9.1.2), "*8. Verification of the ownership criteria of CGP, …: 9.1.2 In respect of Cooperative Society, the Members of society shall collectively consume not less than 51% of the* ***net electricity generated*** *on annual basis."*

- "**Net Electricity Generation"** may mean electricity generated net of auxiliary consumption or net of energy drawn from the grid.
- Furthermore, need to clarify if **banked energy** would be netted and energy drawn against that would be added back to arrive at net generation.
- For uniformity, similar provision should be incorporated for all forms of ownerships.

The above suggestion further Illustrated by a figure below:

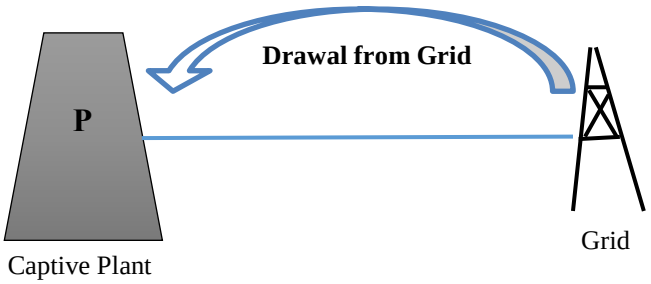

Figure 4: Net Electricity generation after drawal

A plant may draw electricity from the grid for startup or other purposes, thus affecting net generation.

17. **Banking of Energy:** The procedure should clarify how Energy Banking would be accounted for. It is suggested to either ensure that banked energy be properly recognised and accounted for in the procedure.

The above suggestion Illustrates below:
Captive plants are allowed to bank limited amount of energy (as per the prevailing regulation of the respective SERC) with the local distribution utility. Energy banked in a month is generally expected to be utilised with a month or at most a financial year.

Consumption by captive consumers from energy banked with a distribution utility within a financial year may not across a financial year, in general. However, in case of quarterly accounting, one quarter may witness lower 'net generation' while the other one may witness higher net generation (see above comment).

Since energy drawn against banked energy faces deduction of losses, it is suggested that the energy banked should be accounted towards the same.

18. **Portal for CGP Verification and data sharing:** CEA may create an online portal providing login facility to CGP applicants to upload necessary details and documentation in a structured manner and be archived there.
A quarterly summary report on verification status providing key information be shared in the public domain by the portal.

The above suggestion Illustrates below with example:

There should be an online portal for timely reporting on captive status of plant. This tranparency would also ensure that there are no inadvertant delays in the process and that any delay can be identified to the respective party. Some of the key information may include:

1. Identification of the applicant.
2. Current status of the application.
3. Grounds or reasons associated with acceptance/ rejection, and
4. Grant of captive status to consumer.
5. Total capcity being monitored statewise.
6. Energy generated/ consumed etc.