

comments on the Central Electricity Regulatory Commission (Terms and Conditions for the Purchase and Sale of Carbon Credit Certificates) Regulations, 2024

sp spjoshi1812@gmail.com

Wed, 27 Nov 2024 6:58:22 PM +0530 •

To "Harpreet Singh Pruthi" <secy@cercind.gov.in>

Cc "Rashmi S. Nair" <rashmi@cercind.gov.in>, "DebasishRoy" <debashish.roy39@cercind.gov.in>

Tags

Not in Contacts

To,

The Secretary,
Central Electricity regulatory Commission,
3rd & 4th Floor, Chander lok Building,
36, Janpath, New Delhi- 110001.
Date 27-11-2024

Sub: comments on draft CERC (Carbon Credit Certificates) Regulations, 2024.

Sir,

CERC has placed on its website the Central Electricity Regulatory Commission (Terms and Conditions for Purchase and Sale of Carbon Credit Certificates) Regulations, 2024 ('PoCCC reg') for comments by 14.12.24. I am submitting my comments in respect of coexistence of REC and CCC and their convertibility for the considerations of the Commission.

2. The provision of sec. 86(1)(e) of the Electricity Act 2003 is basically for reduction of CO₂ (carbon dioxide) from thermal generation and SERC under this sec. has specified through regulations the renewable energy purchase obligations (RPO) on distribution licensees and consumers. To achieve this objective, most of the SERC has specified RPO trajectory notified by MOP under revised tariff policy vide memo no. 09/13/2021-RCM dated 22-07-22. Any shortfall in meeting RPO can be met by purchase of Renewable Energy Certificates (RECs) traded under Central Electricity Regulatory Commission (Terms and Conditions for Renewable Energy Certificates for Renewable Energy Generation) Regulations, 2022 ('CERC REC reg').

3. Objective of greenhouse gases emission intensity targets to be notified under clause 2(1)(g) and 11(3) of Ministry Of Power's notification dated 28th June, 2023 for Carbon Credit Trading Scheme, 2023 by the Central Government (Ministry of Environment, Forest and Climate Change) for electricity sector is also covers the reduction of CO₂ emission by thermal generation and thus synonymous to RPO. As per reg 11(1) of PoCCC Reg., the denomination of one CCC, as per clause 2(1) (c) of the CCTS Scheme 2023, shall be equal to a reduction or removal or avoidance of greenhouse gas emissions achieved equivalent to one ton of carbon dioxide equivalent (tCO₂e). Draft detailed procedure of Compliance Mechanism under the Indian Carbon Market issued by BEE under reg. 6(2)(a) of proposed PoCCC reg.

provides as under:-

2(6) The obligated entity who fails to achieve the targeted GHG emission intensity in any compliance cycle are entitled to purchase the Carbon Credit Certificates based on the difference in the achieved GHG emission intensity and targeted GHG emission intensity for the production in the relevant compliance cycle.

7(1) a. the exact number of carbon credit certificates to be issued to the designated consumer and the entitlement to purchase the carbon credit certificates after determining by the following formula

b. number of carbon credit certificates = (specific GHG emission notified for the respective compliance cycle – specific GHG emission as achieved in the respective compliance cycle) × production in that compliance cycle.

4. RPO has been specified as per provisions of the Electricity Act-2003 so it can not be superceded by CCC under carbon credit scheme. Thus provisions of REC and CCC both will coexist and their requirement is to met. Registry of REC as per reg. 3(1) and 11(1) of CERC REC Reg by NLDC (under Grid Controller of India) and registry of CCC as per Reg. 5 of PoCCC reg shall be by Grid controller of India. As both REC(based on Mwh) and CCC (based on tCO2) will have common registry and shall be traded at power exchange so in considerations to REC and CCC having common objective of reduction in CO2 emission of thermal generation, It will be appropriate that:

(i) there be separate category of CCC for electricity (CCC_{elec}) under Reg. 8(1) of PoCCC Reg; and

(ii) An obligated entity be permitted to effect purchase of CCC or REC or both to meet shortfall in RPO as well s target emission level, whichever is higher.

(iv) Registration of entity for REC or CCC_{elec} be with common identification no. (say company registration no. / PAN etc) to avoid duplicacy in issue of REC and CCC.

(iv) for satisfying RPO or target emission intensity (whichever is higher) one be convertible to other for trading by the formula as stated below.

$Nr_C(\text{of } CCC_{elec})$

= reduction of emission of CO2 of Thermal Gen. by RE_{gen} (in tCO2)

= $RE_{gen}(\text{in MWh}) * B_{data}(\text{in tCO2/MWh})$, where B_{data} = Base line data* in tCO2/MWh

= $Nr_R(\text{of REC}) * B_{data}$

and for user, it is to be based on RE consumption corresponding to Regen

$Nr_C(\text{of } CCC_{elec})$

= $RE(\text{cons}) / (1 - TrLoss) * B_{data}(\text{in tCO2/MWh})$,

As TrLoss (i.e. Transmission and distribution system loss) applicable for individual user will pose a problem in conversion so as in REC scheme (where REC is based on net injection from generating station and electricity consumption of RE, TrLoss to be neglected and therefore, For generating station as well as user:

$Nr_C(\text{of } CCC_{elec}) = Nr_R(\text{of REC}) * B_{data}$

And $Nr_R(\text{of REC}) = Nr_C(\text{of } CCC_{elec}) / B_{data}$.

Similarly for conversion of emission target to RPO both are to be considered with respect to a base date (Bdt) and formula will be:

$(\text{Emission target} - \text{Emission}_{Bdt}) = (RPO - RPO(Bdt)) / (1 - TrLoss) * B_{data}(Bdt)$,

Emission target worked out as per RPO trajectory or RPO worked out based on emission target, may differ from that specified and as such both as specified are to be met.

CEA in March 21 has published "CO2 Baseline Database for the Indian Power Sector - User Guide Version 16.0 Weighted average emission factor (adjusted for cross-border electricity transfers) has been 0.79 tCO2/MWh) vide table S-1. Accordingly $B_{data}(FY20-21) = 0.79$ or as worked out by CEA for the year be declared by BEE.

5. The CERC may recommend BEE to consider under clause 9(1) of the Carbon Credit Trading Scheme, 2023, the state agency notified by appropriate regulatory commission under reg. 6(1) of CERC REC Reg. for intra-state transmission system and RLDC for inter-state transmission as Accredited Carbon Verification Agencies for power sector.

Yours

Shanti Prasad
Ex-chairman, RERC.