Date: 31-12-2024

Comments from Grid Integration Lab, IIT Bombay on Terms and Conditions for Purchase and Sale of Carbon Credit Certificates Regulations, 2024.

With reference to the Terms and Conditions for Purchase and Sale of Carbon Credit Certificates Regulations, 2024, Grid Integration Lab (IIT Bombay) is submitting below mentioned comments and suggestions for your consideration. This feedback has been formulated after referring to the following key documents:

a. Gazette Notification for Indian Carbon Market
b. CERC (Terms and Conditions for Purchase and Sale of Carbon Credit Cerificates) Regulations, 2024
c. Detailed Procedure for Compliance Mechanism under CCTS

This feedback, we hope will help in strengthening the proposed regulations by addressing certain concerns and providing the relevant suggestions. Each of the comments includes potential remedial measures in the form of regulatory recommendations.

Abbreviations used in this document:

CCC – Carbon Credit Certificate
RE – Renewable Energy
CERC – Central Electricity Regulatory Commission
CCTS – Carbon Credit Trading Scheme
QCA – Qualified Coordinating Agency
ICAC – Interstate Certificate Adjustment Charge
ICM – Indian Carbon Market
CO_2 - Carbon di-oxide

1. Potential Market distortion through speculative CCCs hoarding

Background & Rationale:

- Hoarding of CCCs by non-obligated entities (e.g., RE generators) can potentially lead to artificial price inflation, adversely affecting obligated entities by increasing the purchase price of certificates.
- This, in turn, may result in unanticipated price hikes for products/services that a CCCs buyer company may be hosting or producing directly due to purchase of higher prices of CCCs.
- CERC's intervention is suggested to be necessary to prevent potetnial market distortions and ensure fair trading practices while monitoring the impact on the costs of commodities and services.

Potential Solution:

- *Cap on Banking*: A cap can be imposed on the number of CCCs that can be banked, such as a fixed percentage of annual compliance requirements, etc..

- *CERC Oversight*: CERC could actively monitor CCC banking trends and the downstream impact of CCC prices on the cost of products/services of buyers of CCCs.
- *Validity Restriction*: A CCCs banking validity could be proposed over a certain period of time to encourage consistent performance and prevent potential hoarding for speculative purposes.

2. **Undefined Ownership rules for entities that cease to exist**

Background & Rationale:

The draft regulation does not define how CCCs owned by dissolved/bankrupted entities will be handled. Without a clear mechanism, there is a risk of unregulated trading, speculative hoarding, or the loss of marketable certificates, impacting the broader carbon trading ecosystem.

Potential Solution:

Ownership of CCCs from dissolved entities may transition smoothly to maintain market integrity, avoid misuse, and ensure compliance with trading regulations. The solution may prevent any undue advantage or market disruption while ensuring that certificates retain their trade value.

Possible Situational Approach:

- *Scenario 1*: In case an entity ceases to exist, there should be an adequate mechanism to validate CCCs of such holdings for their subsequent utilization.
- *Scenario 2*: In cases of mergers or acquisitions, certificate ownership should can be transferred to the acquiring entity under monitored conditions, ensuring compliance with established trading mechanisms.

3. There is a need for a **cumulative banking report at the end of each Compliance year** detailing source, usage and remaining Balance CCCs.

4. **Facilitators for Carbon Credit Certificate Trade**

Background & Rationale:

- The current Carbon Credit Trading Scheme (CCTS) prioritizes limiting participation to entities that hold assets directly contributing to carbon offset mechanisms, as outlined in the 'Approved Sectors in Offset Mechanism under CCTS by Central Government' thereby avoids entertaining third-party participants with no direct relation to the CO_2 emission production or removal, aiming to prevent exploitation by profit-driven entities.
- However, exceptions may arise where legal entities, such as Aggregators (similar to Qualified Coordinating Agencies (QCAs)), can act on behalf of valid participants, like small RE generators, who face challenges in participating independently.
- The draft regulation lacks clarity on defining boundaries for such facilitators, potentially risking unfair practices where intermediaries may enjoy disproportionate

benefits instead of the sole generators of the certificates. A structured framework is required to ensure fair inclusion while maximizing benefits for CO_2 offset creators.

- The facilitators in this section may include Aggregators (similar to QCAs), any third-party trading agency acting on behalf of obligated/non-obligated entities.

Potential Solution:

Solution 1: The inclusion of facilitators like QCAs should only occur under strictly defined conditions where they represent valid participants (as per the 'Approved Sectors in Offset Mechanism under CCTS by Central Government') and work transparently on their behalf.

Solution 2: The regulation may prioritize the financial benefit of certificate generators / CO_2 offset creators, minimizing intermediary profits through capped commissions and stringent entry requirements.

Solution 3: To prevent misuse, facilitators may operate under a framework defining their roles, responsibilities, and revenue-sharing arrangements.

Solution 4: Alternative mechanisms may be considered for aggregators to ensure flexibility without compromising market integrity. CERC may decide on which facilitators may be given entry into the trade and into what capacity so that the motivation of the CCTS remains intact.

5. **Trading of CCCs between interstate entities**

Background & Rationale:

- The draft appears to lack a clear mechanism to encourage localized carbon offset generation, which is essential for addressing CO_2 density and promoting local investments in cleaner technologies (Battery Energy Storage Systems (BESS), Hydrogen Storage, etc.) and RE projects. Such mechanisms are crucial for ensuring that high CO_2 density areas take active steps toward local decarbonization.
- The current CCC trading framework in India does not consider geographic proximity between trading entities, even though carbon emissions and sequestration have localized environmental impacts.
- Without such geographically sensitive pricing mechanisms, areas that are more CO_2 dense may continue to remain CO_2 dense by complying with the mechanism through the purchase of certificates, rather than actively reducing local CO_2 production at local/regional levels. Lack of such a mechanism may undermine the fundamental objective of carbon markets in driving actual emission reductions.

Potential Solution:

Solution 1: Introduce mechanisms that encourage localized carbon offset generation in high CO_2 density areas.

  - This can be achieved if the buyers are asked to pay more based on geographic proximity at the top of the bid price for CCCs.

Solution 2: Areas not rich in RE resources can participate in RE development framework by opting for BESS and H_2 projects, which may provide local availability of CCCs for obligated buyers.

Example Mechanism:

***Interstate Certificate Adjustment Charge (ICAC)*:** Calculated as a fixed percentage of the forbearance price or a proportion of the bid price based on the distance between complying entities or can be kept precalculated based on charges applicable between the Indian states. Entities buying the CCCs will have to bear the extra on the top of bid price which shall be automatically applied during trading to adjust the final bid price, ensuring transparency.

Monitoring and Reporting:

- Mandate state-level reporting on CO_2 density and offset generation progress.
- CERC may periodically review the effectiveness of ICAC and localized incentives in reducing regional CO_2 density.

6. Foreign participants in Indian Carbon market

Background & Rationale:

- Clause 6.2.h of the Gazette Notification on Indian Carbon Markets specifies the need to establish linkages with international and national registries as approved by the Central Government, suggesting future readiness for foreign participation in the Indian Carbon Market (ICM).
- While the ICM aims to include global certificate registries, the draft does not address the operational framework or methodology for foreign entity participation, leaving a potential gap in preparedness.
- Free trade practices may necessitate adoption of ICM to accommodate foreign participation. However, such inclusion may account for national economic disparities and prevent foreign entities from leveraging certificate price differences for undue advantage, potentially destabilizing the domestic market.

Potential Solution:

Solution 1: Foreign participation should be designed to align with India's market objectives, ensuring fair trade practices, preventing exploitation of price differences, and safeguarding domestic market integrity.

Solution 2: Verification of carbon credit mechanism may be checked before allowing any trade of foreign certificate in ICM.

Situational Approach:

Global Registry Integration: Develop a global linkage mechanism to ensure no double registration or misuse of certificates in different markets.
Economic Sensitivity: Account for disparities between national economies by implementing a cross-border tax mechanism or other price adjustment to maintain parity.

Example Mechanism:

Registry Integration:

- Create a unified global registry linking all national and international carbon markets.
- Ensure real-time data sharing between markets to prevent double registration or simultaneous trading of certificates.

Cross-Border Tax:

- Implement a tax on cross-border transactions based on the difference between Indian and foreign market prices to protect domestic market stability.
- Surpluses generated from the tax can be banked by CERC for reinvestment into domestic carbon offset projects.

Participation Framework:

- Foreign sellers may register CCCs in ICM, and deregistration from ICM may precede their registration in any other market.
- Foreign buyers can participate only after registering in ICM, with price adjustments or taxes based on their national economic status:
- The cross-border tax policies for foreign-held CCCs should account for the economic status of the holder's country, ensuring equitable treatment.

Phased Inclusion:

- Initially prioritize domestic participation, with foreign entry introduced post-market maturity.
- Regular assessments by CERC to determine readiness for broader international integration.

Verification of foreign certificates

- Foreign market participants should only be allowed from markets where robustness of carbon trading mechanism is well recognized, established and verified by corresponding authority, the same way which will happen in ICM through verifiers.

7. **Defaulter Management**:

Background and Rationale:

The current regulation does not specify detailed mechanisms to manage defaulters effectively, which may undermine the integrity and compliance of the carbon market. Entities may face ambiguity regarding consequences of defaults, rectification opportunities, and incentives for consistent compliance. Additionally, the absence of automated alerts and transparency could result in repeated non-compliance and market inefficiencies.

Potential Solution:

Categorization of Defaults: Define clear levels of defaults (Minor, Moderate, Severe) to differentiate the severity and assign appropriate penalties.

Progressive Penalties: Establish a tiered penalty system that grows with the frequency and severity of defaults.
Automated Monitoring Alerts: A system could be introduced to notify entities when they approach compliance deadlines or CCC limits.