

Policy paper for Indian Carbon Market, 2022 [Draft]

Introduction:

The policy paper for the Indian Carbon Market (ICM), released by the Bureau of Energy Efficiency (BEE), Ministry of Power, Government of India, is an initiative to develop a domestic carbon market, where the emission credits issued to private and public entities will provide incentives for decarbonisation measures within many entities across multiple sectors. The development of such a market is expected to contribute to achieving India's updated nationally determined contribution (NDC) of reducing emission intensity of GDP by 45% by 2030, from the 2005 level, as pointed out in the 26th UNFCCC's Conference of Parties (COP) held at Glasgow. Following are the key highlights of the policy document:

- ❖ The domestic carbon market will be created by transitioning from the existing Perform Achieve and Trade (PAT) Scheme, Renewable Energy Certificates (REC), and Clean Development Mechanism (CDM) in two phases viz. phase-I in the period 2023-25 and phase-II from 2026 onwards.
- ❖ Market will be divided into two dimensions viz. compliance market and offset market. The compliance will be responsible for transitioning from the PAT scheme whereas the offset market will be transitioning from project-based REC/ CDM to a carbon credit trading mechanism.
- ❖ The Carbon Credit Certificates (CCCs) are divided into three types which would be issued under following conditions:
 - a. *Converted CCCs (C-CCC)* – To be issued to entities after converting ESCerts and RECs,
 - b. *Offset Carbon Certificates (O-CCC)* – To be issued to entities under carbon offset mechanism,
 - c. *Mandatory Carbon Credit Certificates (M-CCC)* – To be issued to entities after achievement of target set in phase II of ICM.
- ❖ The policy document suggests the creation of an Apex Committee for the Implementation of the Paris Agreement (AIPA) for international linkage of domestic Indian Carbon Market. AIPA would overlook the ICM governing board created for domestic carbon market administration. The Central Electricity Regulatory Commission (CERC), Grid Controller of India (erstwhile POSOCO) and Power Exchange (IEX/ PXIL) will act as regulatory authority, registry agency and trading exchanges respectively.

The document can be accessed [here](#).

CER Comments

1. ESCerts, REC and the Carbon Market:

It is suggested that the **EScerts be initially be converted on a voluntary basis and later be subsumed completely by the carbon market**. Such a transition be planned in advance ensuring seamless transition from ESCerts market to the carbon market in terms of target setting as well as compliance framework.

The REC market has a number of additional benefits for the Indian power sector including development of the RE development and green electricity products¹. **The RECs should remain voluntarily convertible even in the later phase**, thus ensuring that the REC market, with its institutional framework continues to play its role in

development of the RE resources in the country.

2. A Unified Framework Carbon Emission Reduction Target: The introduction of carbon target should subsume the targets under the PAT mechanism thus providing a single target to the obligated entities. Such a unified approach would provide economic flexibility and lead to optimized cost of compliance. **During the transition phase, the obligated/ designated entities may be offered a choice of complying with the energyefficiency target or the associated carbon target.**

3. Annualised Target from the Terminal Year Target:

Annualised Target setting, based on NDC commitments, and translating the same to the annual targets of the identified sectors/ entities would be a very important task for the market design. In the absence of a ‘demand’ for carbon, which would have a multi-year horizon, the carbon market would suffer from low liquidity, and loss of competition and market efficiency. The target setting approach should be defined beforehand so that the market participants have clear visibility of the same.

4. Rolling Multi-year Target Setting and Banking: The Indian Carbon Market development should be based on multi-year target (e.g. 3-year rolling based targets) for the identified obligated entities. The compliance would thus be measured as an average over the three-year rolling target period. In case of a shortfall/ excess over the target, the same need to be allowed to be banked/ rolled over for the next three-year target cycle. This would give flexibility to the obligated entities to achieve the target and take appropriate decision for investment in new technology, and or other participation in alternate options.

5. Continuous Emission Monitoring System (CEMS): The efficacy of a market mechanism and a compliance regime significantly depends on the accuracy, transparency and effectiveness of the monitoring, reporting and verification (MRV) framework. **Energy use based accounting with third party validation, should be supplemented with implementation of CEMS for stationary sources of pollution.** This would not only help validate the reduction in emissions but also help to evaluate impact on change in other pollutants and, hence, serve a larger public goal. This would also enable the regulators and the policymakers to design a comprehensive framework for addressing various pollutants.

¹ Anoop Singh, A market for Renewable Energy Credits (REC) in the Indian Power Sector: Renewable and Sustainable Energy Reviews, www.researchgate.net/profile/Anoop-Singh-28
Anoop Singh, Comments on MoP Discussion paper on Redesigning the Renewable Energy Certificate (REC) Mechanism, June 2021, cer.iitk.ac.in/blog
Singh, A. 2010. “Economics, Regulation and Implementation Strategy for Renewable Energy Certificates in India” in India Infrastructure Report 2010, Oxford Univ. Press. - https://papers.ssrn.com/sol3/papers.cfm?abstract_id=34402537
Anoop Singh, Comments on “CERC (Terms and conditions for recognition and issuance of Renewable Energy Certificate for renewable energy generation) (Second Amendment) Regulations, 2013.
Anoop Singh, Comments on “WBERC (Co-generation and Generation of Electricity from Renewable Sources of Energy) (First Amendment), Regulations, 2020”

6. Deemed Conversion of SCERs/ RECs:

At the onset of the ICM, there would be limited liquidity as EScerts/ RECs would be voluntarily converted to carbon credits. Given the uncertainty associated with the carbon market in terms of discovered price as well as cleared volume (due to lower liquidity), there may be hesitation in such voluntary conversion. Such concerns would be exacerbated in case the equivalent cleared price is lower/higher than that discovered in the respective EScerts/ REC market.

This concern can be addressed by permitting deemed conversion during the first phase, i.e. allowing the EScerts/ RECs to be available for trade in carbon market without conversion (till the trade is cleared). The respective EScerts/ RECs would be blocked (in the dematerialized form) while these are submitted for trade in the ICM². These would only be converted to carbon credits if cleared during trade at the price-quantity pair bid submitted by the seller. If not, the EScerts/ RECs would continue to be held in their original form and would be tradable in their respective market. This would provide flexibility of trade and, would also reduce revenue risk for the market participants, thus supporting liquidity (to the extent of availability of participation from EScerts and REC players) in the carbon credits market.

7. Transparent and IT-enabled MRV

All stages of the MRV process should be transparent with visibility in public domain to ensure that there are no slippages/ leakages/ miscalculations during the process. The real-time/daily data (on 15-min block basis) should be available through a publicly accessible portal³. The monthly, quarterly and annual reports thereof should be available in public domain to bring transparency in the process. To make the MRV process stringent, regularly updated data should be made available on public portal by the verifiers/ auditors. Data should be updated at each step of MRV in a timely manner such that the historical data cannot be revised at latter stage of MRV by the auditors. Time-stamping of the data would further add to its authenticity.

8. International Standard and Cost of Compliance

Current development of carbon market needs to be aligned with global carbon market. Carbon market standards differing from international standard would reduce international tradability (in future) as well as availability of international funding.

9. Policy and Regulatory Aspects

Development of the carbon market may require amendments to the relevant acts including the Energy Conservation Act 2001 (with respect to PAT) and the Electricity Act 2003⁴ (with respect to REC market), and the associated CERC regulations (for REC and the EScerts market).

² Units available for trade would be worked out on the basis on the lower integer of the equivalent carbon credit.

In case of inclusion of carbon credit under the CSR program, appropriate notifications would also need to be issued under the Companies Act 2013. The Companies Act 2013 may also need to be suitably amended to ensure monitoring and compliance at plant (and the company level, if applicable). The Form-B under the Director's report, which forms a part of the Annual Report of the Companies should be suitably amended/ expanded to capture the required data in a structured fashion.

10. Regulatory Jurisdiction and Amendments:

The proposed carbon market seems to step over the existing jurisdiction of the CERC, SERCs and the BEE respectively. Appropriate amendments need to be undertaken to ensure that REC and EScerts conversion is duly recognized in the respective CERC regulations.

11. Pass through of Compliance cost in ARR

The cost of emissions reduction compliance would lead to additional cost element in the cost of generation and supply of electricity. The process for approval of tariff under section 62 of the Electricity Act and the tariff policy would have to accommodate such costs to be passed through.

12. Clean Energy Cess (Coal Cess) and Carbon Reduction Target

With the introduction of Goods and Services Tax (GST), abolition of coal cess was expected. If such a cess on production/ import of coal continues to be levied, cost of compliance for meeting the carbon emission reduction target (on account of various fossil fuels including coal) would be an additional burden. A clarity on phasing out/ removal of the coal cess, with effective compliance framework for ICM⁵, would provide incentive for greater compliance.

13. Data Accessibility:

The ICM should have clear provision for data access and availability in the public domain in detailed granularity for supporting research related to carbon market design. This would include data generated from CEMS as well as those submitted to for compliance monitoring and market participation and its outcome (including aggregate demand and supply curve).

14. Market monitoring framework

Like any other market framework, the ICM should provide for market monitoring to identify market domination/manipulation and the mechanism to redress the same. Periodic market monitoring should be able to identify market concentration as well as any specific price/market clearing event that needs the desired attention.

³ It is important to highlight that most of the developed nations provide access to the CEMS data through a publicly accessible portal. This enhances overall transparency and policy research.

⁴ And the associated CERC regulations (for REC), and rules (for RPO).

⁵ Imposition of coal cess is relatively easy due to tracing of production, import and shipme