GOVERNMENT OF INDIA
MINISTRY OF POWER

सत्यमेव जयते

Azadi Ka Amrit Mahotsav

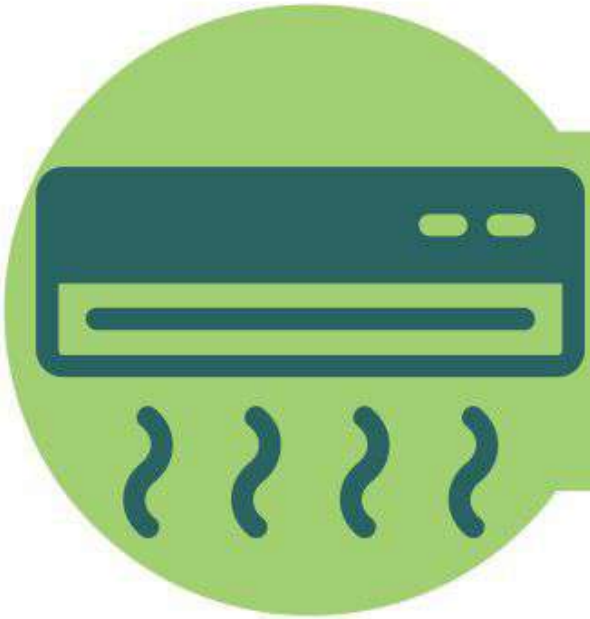
NATIONAL CARBON MARKET

RELEASE

Draft Blue Print for
Stakeholder Consultation

MAKING OUR PLANET
HEALTHIER

SAVE MORE
WITH AC@24°



- Every increase of 1°C in temperature setting saves approximately 6% on your electricity bill
- If you run your AC at 24°C instead of 20°C, you will save approximately 24% electricity and reduce your power bill by approximately 24%
- It will also feel more comfortable

Save money, chill more.

Maintain AC @ 24°C

Ministry of Power
Government of India

BUREAU OF ENERGY EFFICIENCY (BEE)
Ministry of Power, Government of India
4th Floor, Sewa Bhawan
R.K. Puram, New Delhi-110066
Ph: 011-26766700, Fax: 011-26178328/52
Website: www.beeindia.gov.in

Preface

Climate Change, an unwarranted consequence of carbon intensive activities has posed some of the severe and irreversible impacts on the ecosystem. It has also become an unmatched challenge to the sustainability of the entire human civilization. Recognizing the need to mitigate the effects of climate change, India has made an impressive progress by strengthening the existing initiatives and bringing in new energy reforms.

Hon'ble Prime Minister of India has described climate change as the biggest challenge facing humankind and it is only natural to draw a corollary that India is ready to step up its efforts under climate discussions, reflecting a long-term strategy for development that is low on greenhouse gas emissions.

Carbon markets have been successful in reducing green-house gas emissions by setting a limit on emissions and enabling their trading. Trading enables entities that can reduce emissions at lower cost to be paid to do so by higher-cost emitters, thus lowering the economic cost of reducing emissions.

Given the desirability to pursue low carbon scenario option with enhanced energy efficiency from both the energy security perspective and the sustainability perspective, it is imperative that India takes up on priority strong energy efficiency strategies across multiple sectors. In this context, Government of India is developing carbon market to reduce emissions and to pursue a low carbon path more vigorously, as most of the economic sectors are still developing (or yet to develop) providing an opportunity to re-imagine and refresh the development paradigm.

The development of a thriving national carbon market must ensure that necessary support mechanism is available along with a push to drive simultaneous demand, while being feasible and cost effective. In this regard, Ministry of Environment, Forest and Climate Change (MoEFCC) entrusted this important task to Bureau of Energy Efficiency (BEE) for implementation. BEE prepared this draft blueprint on National Carbon Market, this document is to understand the present infrastructure and how carbon markets have been operating, as well as examine the projected view of an independent National Carbon Market.

A phased approach is expected to overcome the barriers and encourage voluntary entities to participate in meeting India's NDC commitments, which would primarily involve increasing demand first, increasing supply in the market in the second phase and then progress towards a Cap & Trade system in its final phase. Also, fungibility between ESCerts and Emission Reduction Units could ensure compatibility for voluntary buyers and sellers and changing the cycle period from three years to one year could enhance participation and steer yearly compliance and regularity in trading.

This blueprint document deliberates ways overcome barriers in the process of issuance and trading of Energy Saving Certificates, examines challenges faced during trading, proposes approaches for creating voluntary carbon market in India and gives suggestions to resolve the market barriers. It is pertinent to develop such a blueprint and to circulate it amongst stakeholders for their valuable inputs. This dialogue would help create an effective and meaningful marketplace for emissions trading, thereby creating synergies across different policy measures for climate change mitigation.

Abhay Bakre
Director General
Bureau of Energy Efficiency

Table of Content

List of figures

List of tables

1. Introduction

1.1 Background

India has witnessed a significant impact to its economic growth during the past 18 months. The country is bouncing back from the impact of COVID 19, yet this impact requires a careful examination and recalibration of its investments towards climate resilience.

The Indian government has responded to the economic crisis by unveiling one of the largest stimulus packages in the world, equating to a share of around 11% of the country's GDP in 2019. India's overall COVID recovery stimulus package mainly supports activities related to industries likely to have a large negative impact on the environment by, for example, increasing the use of fossil fuels, and unsustainable land use.

After the initial stimulus package to support the industry and businesses, additional announcements have been made towards deeper targets for contribution of renewables into the Indian power sector, yet the dependence on fossil fuel will be integral to the economic growth of the country. Power sector alone is expected to have nearly 60 GW of coal-based capacity addition by end of this decade.

Significant investments have been carried out towards demand side energy efficiency programs and mass rapid transport infrastructure, which may pave the way towards long term reduction in GHG emissions, yet a larger participation of businesses and industry is required to ensure continuous investments in both mitigation and adaptation related opportunities.

A new report from the Deloitte Economics Institute shows India must act now to prevent the country losing US$35 trillion in economic potential over the next 50 years due to unmitigated climate change. The report, titled, "India's turning point: How climate action can drive our economic future", also reveals how the country could gain US$11 trillion in economic value instead over the same period, by limiting rising global temperatures and realising its potential to 'export decarbonisation' to the world.

The report further says that India has a window of opportunity to lead the way and show how climate action is not a narrative of cost but one of sustainable economic growth. As India aspires to be a US$5 Trillion economy, it is not just foreign and domestic investments that will be key in driving growth, we must also take this opportunity to align our ambitions with climate choices."

Accelerated decarbonisation could bring significant benefits to India and the world. India could use the transition to a low-emission footing to restructure its economy towards growth in advanced industrial sectors, leveraging lower cost clean energy export markets, as the region experiences a rapid increase in energy demand over the coming years.

As a developing nation, India's transformation to a low-emission footing is likely to be more complex and challenging than much of the rest of Asia Pacific. It will have to strike a delicate balance between the need for sustained economic development—and the corresponding rise in energy demand—and investing in and transitioning to emerging, low-emission technologies. The structural adjustment costs associated with reducing India's emissions profile are expected to be significant, but the cost of inaction will be greater.

India has yet to submit updated 2030 targets (in its Nationally Determined Contribution - NDC) to the UNFCCC. Its current NDC target would be well overachieved with current policies. It has already missed the UN deadline of Oct 12, 2021. The updated NDC may further target deeper reduction in the emissions intensity through a formal announcement at Glasgow COP 26.

To facilitate achieving these targets, it is important that India considers development of domestic carbon market with and agenda to provide necessary market support mechanism to new mitigation opportunities and simultaneously establish enough momentum to drive demand. In addition to this a careful management of supply and demand, the remain relevant, the operationalisation should be cost effective, politically feasible and should be based on the existing body of knowledge of managing ESCerts and RECs transactions.

Such a carbon market would help create synergies across different policy measures for climate change mitigation, by creating a common marketplace for emissions trading through development of a meta-registry. The World Bank's Partnership for Market Readiness (PMR) has announced a US$ 8 million grant for India to prepare for and pilot the use of carbon pricing instruments to help reduce to greenhouse gas (GHG) emissions.

Part of the funding will help India to broaden and deepen the scope of its existing market-based approaches to increase energy efficiency and renewable energy, including through the Perform Achieve and Trade (PAT) Mechanism and the Renewable Energy Certificate (REC) scheme.

Funding will also go to develop and pilot a new market-based instrument that could improve either solid waste management or energy efficiency in medium and small industries. Part of the funding will be used to create systems to strengthen India's existing registry systems for the PAT and REC schemes and to facilitate tracking greenhouse gas (GHG) emission reductions. The upgraded system will promote transparency, environmental integrity and will reduce the risk of double counting as well as help prepare India to engage in the international transfer of mitigation outcomes.

The US presence into the Paris Agreement under its new president is expected to bring in its own psychological heft into global climate action. Indian companies have been missing the compliance market action since end of the first commitment period (December 2012). The market has been thus surviving on offset transactions through voluntary market operators resulting in significantly lower recovery without any transparent price discovery mechanism.

A domestic carbon market with proper support and administration will provide necessary support to a larger future expectation of not just meeting / exceeding the NDC aspirations of the country, it may also pave way for a meaningful implementation of Article 6 of the Paris Agreement with possible opportunities for ITMOs across sectors for their robust environmental benefits and acceptance across geographies.

The domestic carbon market should thus begin with review of following target areas:

- Examination of present trade of various environmental instruments (ESCerts, REC, CERs and VERs)
- Fungibility across instruments and their role in a domestic voluntary carbon market
- Calibration and effective management of demand and supply of instruments
- Permission and play for intermediaries (traders and BFSIs)
- Participation of non-energy sectors with potential environmental footprint and reduction opportunities and types of instruments that can be transacted
- Entry and exit barriers for international trade of emission reduction units
- Fair and transparent price discovery
- Registry management and operation (short, medium- and long-term view)
- Participation protocol and methodology (registration and operationalisation of candidate projects)
- Monitoring and reporting of carbon market performance

This brief discussion paper is an attempt to identify plausible options leveraging the present infrastructure and learning from the transaction of ESCerts and RECs; the role played by voluntary carbon markets in last decade or so and the future outlook of an independent yet flexible domestic carbon market that can serve the present as well future requirements to position India as a meaningful contributor to the global decarbonisation journey.

1.2 Carbon markets

The end of the year 2020 marks a fundamental change in the global governance of greenhouse gas (GHG) emissions. Looking forward, the Paris Agreement now provides the new framework for the global effort to combat temperature rise. This significantly differs from the approach of its predecessor, the Kyoto Protocol. The new context of the Paris Agreement has important implications for the voluntary carbon market, i.e. the voluntary purchasing and retiring of carbon credits.