International Carbon Action Partnership

Indian Carbon Credit Trading Scheme

General Information

ETS Description

The Indian parliament adopted an amendment to the "Energy Conservation Act, 2001" in 2022, providing the legal basis for the establishment of the Carbon Credit Trading Scheme (CCTS) and issuance of carbon credit certificates (CCCs). It provides the legislative framework to establish an Indian carbon market (ICM) and grants the power to issue CCCs for the reduction of emissions.

Following passage of the amendment, the government began work on the institutional and regulatory framework for the CCTS. Following stakeholder consultation, the CCTS was officially notified in June 2023.

This notification established an institutional framework, including the National Steering Committee for the Indian Carbon Market (NSCICM), tasked with overseeing the ICM framework. Additionally, roles and responsibilities of the administrator, technical committee, and other stakeholders were defined. CCCs (denominated in 1 tCO_2e) will be issued or surrendered based on performance against emissions intensity targets for covered entities.

In July 2024, the government adopted detailed regulations for the compliance mechanism under the CCTS. It takes the form of an intensity-based baseline-and-credit system, initially covering entities from eight energy-intensive industrial sectors (see 'Sectors and Thresholds' section).

Applying a "gate-to-gate" approach to cover the emissions along the entire value chain, the scope of the CCTS includes both direct emissions from fuel combustion and industrial processes, and indirect emissions from electricity and heat consumption (scope 1 and 2). In addition, some scope 3 emissions are also considered (import and export of intermediary products). It initially covers CO_2 and perfluorocarbons (PFCs).

The CCTS is based on the existing Perform, Achieve and Trade (PAT) scheme – a mandatory energy efficiency scheme covering more than 1,000 entities from 13 energy-intensive sectors – that is being gradually transitioned into a compliance carbon market. The NSCICM, co-chaired by the Ministry of Power and the Ministry of Environment, Forest and Climate Change (MoEFCC), directly oversees the compliance carbon market function, with the Bureau of Energy Efficiency (BEE) acting as administrator of the scheme.

The compliance mechanism will be complemented by a voluntary domestic crediting mechanism that will allow non-covered entities to register eligible projects for GHG emission reduction, removal, or avoidance for the issuance of CCCs. This separate instrument aims to incentivize emission reductions in sectors outside of the compliance market and to increase market liquidity, encompassing a comprehensive approach for GHG reduction.

ETS Status

in force

Jurisdictions

India

Year in Review

A gradual transition from the PAT scheme to the CCTS started in 2025, with seven sectors successfully shifting to the CCTS from FY2026.

The targets for the seven industrial sectors — aluminium, cement, chlor-alkali, pulp and paper, petroleum refining, petrochemicals, and textiles — covering approximately 490 units, were notified in two phases. The first four energy-intensive sectors (aluminium, cement, chlor-alkali, and pulp and paper) were notified in October 2025, with the remaining three sectors notified in January 2026. Based on these targets, entities have legally binding emissions intensity targets for the compliance years FY2026 and FY2027, using data from FY2024 as the baseline. The first CCC trading is expected to be launched by mid-2026.

Sectoral coverage

Industry

Emissions & Targets

Overall GHG Emissions excl. LULUCF (MtCO2e)

2,958 $MtCO_2e$ (2020)

GHG reduction targets

By 2035: Reduce emissions intensity by 47% below 2005 levels (updated NDC)
By 2070: Net Zero (updated NDC)

Size & Phases

GHGs covered

CO2, PFCs

Phases

PHASE 1: Two years (FY2026 to FY2027)

Cap or total emissions limit

The total emissions limit under the Indian CCTS changes as a function of production (output) and is the sum of the bottom-up output-based emissions limits for all individual covered entities. The bottom-up emissions limits do not represent an absolute cap.

Sectors and thresholds

Aluminium, chlor-alkali, cement, pulp and paper, petrochemicals, petroleum refining, and textiles.*

INCLUSION THRESHOLDS:

Entities currently covered under the PAT scheme are being transitioned to the CCTS, using the same inclusion thresholds. The following table indicates the sectoral thresholds.

Sector	Minimum annual energy consumption
Aluminium	7,500 TOE
Cement	30,000 TOE
Cement grinding	10,000 TOE
Chlor-alkali	12,000 TOE
Iron and steel	20,000 TOE

Petrochemical	1,00,000 TOE
Petroleum refining	90,000 TOE
Pulp and paper	7,500 TOE
Textiles	3,000 TOE

*The emissions intensity targets for the iron and steel sector have not yet been notified by MoEFCC as of February 2026.

Point of regulation

Point source (industry)

Type of entities

Installations/facilities

Number of entities

490 (This number reflects entities from the seven industrial sectors for which final emissions intensity targets have been notified by MoEFCC as of February 2026).

Allowance Allocation & Revenue

Allowance allocation

Within the CCTS, sectoral GHG emissions intensity trajectories have been developed, extending up to 2030. These sectoral trajectories were formulated based on India's NDC, incorporating sector-specific marginal abatement cost curves to assess the technical and economic feasibility, as well as the potential for energy efficiency improvements and fuel switching within each sector.

Entity-specific targets were derived from the sectoral emissions trajectories, considering the respective sub-sector's trajectory and their relative emissions performance, with annual compliance targets assigned accordingly.

The sectoral emissions intensity trajectories and corresponding target ranges are deliberated and finalized by the relevant sectoral technical committees. Once agreed upon, the emissions targets undergo review by the sub-working groups and receive approval from the NSCICM.

Emissions intensity targets spanning a three-year period for entities covered under the scheme are notified by the MoEFCC. These targets are denominated in tCO_2e per unit of product.

Entities that overachieve their GHG emissions intensity target will be eligible for the issuance of CCCs, while entities that fall short of their target will be required to purchase and surrender an equivalent number of certificates.

The BEE will issue the CCCs, which will be traded through the country's power exchanges. C overed entities will be required to register on a national registry, while non-covered entities may do so if they wish to participate in trading.

Flexibility & Linking

Offset credits

The use of offsets is not allowed.

Banking and borrowing

Unlimited banking of CCCs is allowed. Banked CCCs can be either sold within the ICM or used to meet future compliance obligations.

Borrowing is not allowed.

Links with other Systems

The Indian CCTS is not linked with any other system.

Other carbon pricing instruments in the jurisdiction

Domestic offset mechanism (under development)

Compliance

Compliance mechanism

Covered entities must surrender one compliance unit per tCO_2e of excess emissions.

The annual emissions targets for the first entities covered under the CCTS were set using FY2024 emissions data as baseline. New emissions intensity targets will be announced every three years, to enable longer-term planning for covered entities.

For the seven sectors where final targets for FY2026 and FY2027 have been notified, the average reduction rate for FY2027 is provided in the table below:

Sector/sub-sector	Average reduction percentage till 2027
Alumina	4.5%
Aluminium	4.9%
Textiles	6.6%
Cement Integrated	2.7%
Cement Grinding	6.6%
Pulp & Paper	6.5%
Petroleum Refining	3.1%
Petrochemical	3.6%
Chlor-Alkali	6.5%

Compliance Period

One financial year (FY) (from April 1 to March 31)

Covered entities must submit a performance assessment document within four months after the end of the compliance year, e.g., by July 31.

Monitoring, Reporting, Verification (MRV)

FRAMEWORK: The regulatory framework for the compliance mechanism under the CCTS is defined in the “Detailed Procedure for Compliance Mechanism under CCTS version 1.0”, published by the BEE in July 2024.

MONITORING: Annual monitoring of GHG emissions based on a monitoring plan, using a "gate-to-gate" approach to cover the emissions along the entire value chain (scope 1 and 2). BEE provides a standardized monitoring template (GHG Emission calculation pro forma) to be used for monitoring and reporting.

REPORTING: Covered entities are required to report their emissions annually to the BEE and State Designated Agency within four months after the end of the compliance year (by July 31).

VERIFICATION: Emissions reports need to be verified by a carbon verification agency accredited by BEE for the purpose of preparation of the verification report and the verification of compliance with respect to the entity's GHG emissions intensity targets.

Penalties and enforcement

Should covered entities fail to meet their compliance obligations by surrendering the CCC, the Central Pollution Control Board shall impose an environmental compensation order on such entities for the shortfall which shall be equal to twice the average price at which CCCs are traded during the trading cycle of that compliance year.

Market Regulation

Market Design

MARKET PARTICIPATION: Compliance entities

MARKET TYPES:

Primary: CCCs are not auctioned under the CCTS. All certificates are issued by the BEE to entities overperforming their targets.

Secondary: CCCs will be traded through the country's power exchanges, with the Central Electricity Regulatory Commission (CERC) acting as the regulator for trading activities.

LEGAL STATUS OF ALLOWANCES: CCCs will not be considered financial instruments in the initial stage of CCTS

Other Information

Institutions involved

Ministry of Environment, Forest and Climate Change (MoEFCC): Responsible for national climate strategy. Formally designates facilities as covered entities under the CCTS and notifies GHG emissions targets under the "Environment Protection Act (1986)".

Ministry of Power (MoP): Responsible for national energy policy and the national carbon market. Recommends GHG emissions targets to the MoEFCC for notification.

Bureau of Energy Efficiency (BEE): Responsible for the administration and implementation of the CCTS. Its responsibilities include identifying relevant sectors and their potential for GHG reduction, developing emissions trajectories and targets for covered entities under the compliance mechanism, issuing CCCs, and developing the necessary IT infrastructure for the operation of the ICM.

Grid Controller of India (GCI): Registry operator for the CCTS.

Central Electricity Regulatory Commission (CERC): Regulator for trading activities under the CCTS. It provides market oversight and takes necessary corrective action to prevent fraud.

National Steering Committee for the Indian Carbon Market (NSCICM): Advisory committee that oversees the governance and functioning of the Indian carbon market. The NSCICM includes representatives from relevant ministries, state governments, and industry experts.

Regulatory Framework

Carbon Credit Trading Scheme, 2023

Energy Conservation (Amendment) Bill (2022)

Energy Conservation Act (2001)

The Environment Protection Act (1986)

Detailed Procedure for Compliance Mechanism under CCTS (2024)

Notification of GHG emission intensity targets for the first four sectors (2025)

Notification of GHG Emission intensity target for the three sectors (2025)

Published Offset methodology

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