

INTERNATIONAL COMPARISON

November 2024



What's in this issue: “Carbon credit market regulations”

Auren International Comparison is a quarterly publication that provides you an overview of trends and international tax developments by comparing tax issues in different legislations around the world, that may affect those doing business in multiple locations.

Constant legislative, regulatory, and judicial changes, along with globalization, economic shifts, and operational adjustments, are challenging issues. Now more than ever, in an increasingly globalized world, companies must have a total perspective and awareness of tax issues, and this publication aims to cover key tax topics which should be of interest to businesses operating internationally.

This edition includes numerous country focus pieces, in which it is analyzed the Carbon credit regulations across various jurisdictions. Find out more about the regulatory system of the carbon credit market, which optimizes its issuance, enhances transparency, and facilitates compliance with global emission reduction targets.

We hope that you find this publication helpful.

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COLOMBIA

Definitons	Activity data	The regulations of the carbon credit market in Colombia are framed by various laws and mechanisms aimed at reducing greenhouse gas (GHG) emissions and promoting sustainable development.
	Baseline year	<p>Law 1753 of 2015: establishes the National Development Plan, which includes strategies for climate change management.</p> <p>Law 1819 of 2016: introduces a national carbon tax, creating incentives to reduce emissions through the purchase of carbon credits.</p> <p>Law 1931 of 2018: creates the National Tradable Quotas Program (PNCT), which allows the trading of emission rights and sets guidelines for climate change management.</p> <p>Law 2169 of 2021: promotes low-carbon development, establishing goals and measures to achieve carbon neutrality and climate resilience.</p>
Compliance Mechanism		Regulatory Market: it is based on legal obligations, where carbon credits can be used to comply with the carbon tax. This market is regulated by Decree 926 of 2017.
		Voluntary Market: Allows public and private entities to transact credits without a legal obligation, seeking to offset their carbon footprint.
		Carbon credits represent one ton of CO2 that has been reduced or removed through certified projects. Certification is crucial and must be carried out by accredited auditors to ensure the integrity and quality of the project. Each project must go through validation and verification processes before issuing credits.
		Established by Law 1819 of 2016, this tax allows companies to offset up to 10% of their emissions through the purchase and cancellation of carbon credits. This reduces their tax liability, incentivizing effective emission reductions.
GHG Emission Intensity Trajectory and Targets		Although the regulatory framework is established, there are challenges in the implementation. For example, irregularities have been reported in some projects that do not adequately reflect the promised emission reductions. However, it is expected that the market will grow significantly by 2025 with an increase in the issuance and trading of bonds.
		Colombia can also participate in international mechanisms such as the Clean Development Mechanism (CDM) and other systems that allow for the generation and use of international credits to meet national goals.
		The GHG emissions intensity will be calculated for the reference year from the verified data (for the calculation of GHG emissions and emissions intensity) submitted by the obliged entity to the Government.
Monitoring and Reporting Process		Each project that generates credits must be certified by accredited auditors, who verify compliance with international and national standards for GHG reduction. This process ensures the integrity and quality of the issued credit, which is essential for its acceptance in both regulated and voluntary markets.
Verification and Assessment of Performance		Projects seeking to issue carbon credits must be certified by recognized standards, such as the Verified Carbon Standard (VCS) or the Gold Standard. These standards establish rigorous criteria that projects must meet, ensuring that emission reductions are real, additional, and permanent.

Issuance and Surrender of Carbon Credit Certificate	The process of issuing and delivering the Carbon Credit Certificate in Colombia is designed to ensure that each credit represents a real and verifiable reduction in GHG emissions. Through meticulous audits, constant monitoring, and a transparent system, Colombia aims to foster a robust market that effectively contributes to fight climate change. Efforts are still underway with financial entities to develop green bonds.
Trading of Carbon Credit Certificates	The National Emission Reduction Registry (RENARE), created by Law 1753 of 2015, allows entities to demonstrate their mitigation results and facilitates the trading of the generated certificates.
Banking of Carbon Credit Certificates	Currently, some commercial banks in Colombia are starting to offer financial products related to sustainability and carbon offsetting. These banks can facilitate access to carbon credits for companies looking to become carbon neutral. Additionally, some companies specialized in sustainability and the environment, such as Cercarbono and Verra, act as intermediaries in the certification and trading of carbon credits. Although they are not banks, they play a crucial role in connecting project developers with credit buyers.
Compliance with GHG Emission Intensity Targets	The entity responsible for ensuring compliance with the Carbon Credit Market in Colombia is the Institute of Hydrology, Meteorology, and Environmental Studies (IDEAM). This institution is responsible for preparing and updating the National Greenhouse Gas Inventory (INGEI), which is essential for monitoring the climate change mitigation goals set by the National Government. Emission Request: Once compliance is verified, a formal request for the issuance of credits must be submitted to the relevant regulatory entity. Carbon Credit Certificate: The final document issued that certifies the exact amount of CO2 equivalent reduced or removed by the project, registered with a unique number for traceability.



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GERMANY

Definitons	Base year	The base year is the year in which the first greenhouse gas balance is drawn up. (Mandatory for the first time for the calendar year 2024 in 2023.)
	BEHG	The BEHG (Fuel Emissions Trading Act) serves to achieve the climate protection targets set out in the German government's Climate Action Plan 2050.
	BEHG-Comissioners	BEHG-Comissioners are natural or legal persons or partnerships that are defined as tax debtors for the offenses according to BEHG.
	Cap	Cap is the term used for the state-imposed upper limit.
	emission credit	An emission credit is a standardized permit allowing the holder to emit one ton of CO2 or another greenhouse gas. This credit system is considered measurable and intends to reduce, remove or avoid emissions as much as possible.
	EBeV	EBeV is the regulation on emissions reporting under the Brennstoffemissionshandelsgesetz for the years 2023 to 2030.
	GHG-Protocol	The GHG-Protocol (Greenhouse Gas Protocol) is a standard for accounting for greenhouse gas emissions developed by business, non-governmental organizations, and government for business.
	nEZ	The nEZ (Emissionszertifikat des nationalen Brennstoffemissionshandels) only exists in electronic form.
	Scopes	Scopes are areas of the GHG protocol that define the point in the value chain at which companies directly or indirectly cause emissions (e.g. CO2, methane, F-gases).
THG-balance	The THG-Bilanz (greenhouse gas balance) provides insights into the main sources of the responsible parties' emissions and thus helps to identify relevant levers for reducing emissions. It is a central tool for defining climate protection targets and evaluating climate protection measures.	



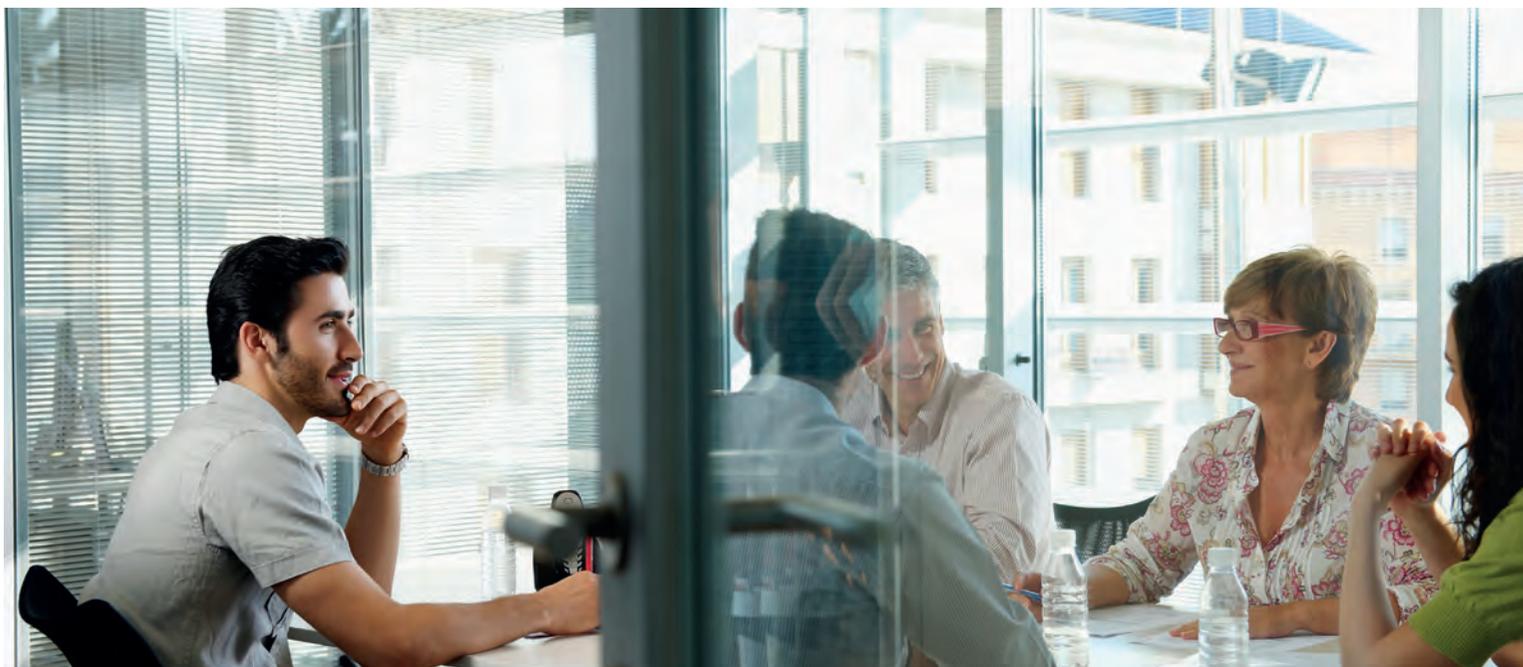
Compliance Mechanism	For each calendar year, the federal government sets the annual emission levels by means of an ordinance.
	Some of the companies will receive a limited number of emission allowances free of charge in accordance with the established allocation rules.
	Companies that do not receive free emission certificates or whose allocation is insufficient must purchase the emission certificates at auction or buy them from other companies.
	Companies such as fuel wholesalers, manufacturers of fuels with wholesale distribution that bring fuels to market, and businesses that import fuels into Germany (energy import tax) are subject to the reporting and trading requirements, but not consumers.
	The obligations of the BEHG Commissioner to monitor and report on fuel emissions only arise when the annual emissions of all fuels placed on the market is at least one ton.
	The BEHG Commissioner must regularly check that the objective has been met and that it has been adhered to for the calendar/trading year.
	If not enough emission certificates have been submitted for the previous calendar year by September 30, the emission certificates must be submitted later. Furthermore, a payment obligation is established vis-à-vis the BEHG Commissioner.
	When fuels are used in plants that are already subject to the European emissions trading system, there is no double burden in Germany.
GHG Emission Intensity Trajectory and Targets	Using the company data, an analysis is made of the current situation with regard to emissions to date and recorded as a baseline.
	On the basis of the data collected, a selection of climate protection measures and targets for reducing emissions should be determined.
	BEHG-Commissioners set themselves targets in line with state interests.
	These objectives are set out in a monitoring plan.
	The monitoring plan must be submitted for approval for the first time in 2023 for the calendar year 2024, by a deadline to be set by the authorities.
	It includes full and transparent documentation of the monitoring methods for the fuels placed on the market by the BEHG Commissioner in a calendar year.
Monitoring and Reporting Process	The monitoring plan is the basis for the annual emissions report.
	BEHG-Commissioners who become subject to the obligations of the BEHG for the first time within the period from 2024 to 2030 must submit a monitoring plan without delay after commencing their commercial activities.
	The self-imposed climate targets for the respective calendar year are to be met.
	If the regular evaluation shows that the set targets are not being met, there are two options: 1. Adjust the climate protection measures (preferred), 2. Adjust the climate protection targets.
	BEHG-Commissioners have to determine the fuel emissions for the fuels placed on the market in a calendar year on the basis of the monitoring plan and report the fuel emissions to the authorities by July 31 of the following year.

Verification and Assessment of Performance	With the approval of the monitoring plan, the BEHG Commissioner shall determine and report its fuel emissions in accordance with that monitoring plan	
	The verifying authority determines with sufficient certainty whether an emissions report does not contain any material misstatements and whether the monitoring methods and procedures applied comply with the requirements of EBeV 2023.	
	In addition, the verifying authority prepares an inspection report on the inspection carried out, including a final inspection opinion.	
	Fuel emissions must be determined and documented in each calendar year, and the result must be verified by an independent expert inspection center.	
	The detailed reporting requirements are set out in the EBeV.	
Issuance and return of Carbon Credit Certificate	Some of the companies will receive a limited number of emission certificates free of charge in accordance with the established allocation rules.	
	For each tonne of CO ₂ , for example, that is released when fuels are burned, an emissions certificate must be returned.	
	The amount of emissions determined in the emissions report is decisive for the submission of the emissions certificates by September 30 of the following year.	
	If a BEHG-Commissioner has returned more emission certificates than have to be returned for the respective calendar year based on the registered fuel emissions, the authorities shall ensure that the emission certificates not required are not counted towards fuel emissions arising in subsequent years.	
	A return or refund for the cancellation of deletions or the return of emission certificates that were initiated by mistake and completed is not provided for by law	
Trading of Carbon Credit Certificates	Companies that do not receive free emission certificates or whose allocation are insufficient must purchase the emission certificates at auction or buy them from other companies.	
	During the introductory phase (2021 to 2025), the emission certificates will be sold at fixed prices and auctioned from 2026 (minimum price of 55 EUR/emission certificate; maximum price 65 EUR/emission certificate).	
	Authorities shall ensure that the auction dates are published no later than two months in advance.	
	BEHG-Commissioners can purchase up to ten percent of the nEZ acquired in any of the years 2021 to 2025 by September 30 of the following year to fulfill the obligation to sell for the previous year at the fixed price set for that year on the sales platform.	
Accumulating of Carbon Credit Certificates	After the end of the calendar year, the remaining emission certificate can be used in subsequent calendar years or sold to other companies that need them.	
Compliance with GHG Emission Intensity Targets	The participating companies set an ambitious and credible climate protection target.	
	The provisions of the climate protection targets should be taken into account when developing business activities for at least the next five years.	
	The GHG Protocol is used to record all corporate emissions, which are assigned to three overarching scopes.	
	Method 1	The company prepares two THG balances, and the difference between the previous year's balance and the current one is determined.
Method 2	Particularly suitable for companies that are just starting out with climate management: the focus here is on the implemented measures and their success is evaluated on the basis of the savings achieved in tons of CO ₂ equivalents.	

GREECE

Definitons	Activity data	Activity data means the quantity of fuels, energy, or materials consumed or produced by a process relevant for the Greenhouse Gas (GHG) emission calculations.
	Baseline year	The National Climate Law sets as its long-term goal the gradual transition of the country to climate neutrality by the year 2050, in the most environmentally sustainable, socially fair and cost-effective way. Baseline year means the financial year in which a base level of GHG emissions is used as a reference point for establishment and assessment of greenhouse gas emissions intensity, based on verified data submitted by the obligated entity.
Compliance Mechanism		<p>The legal framework around CO2 storage is found in the Ministerial Decision 48416/2037/E.103/2011, which transposed the EU CCS Directive into Greek law. It follows the broad line of the EU directive.</p> <p>On May 26, 2022, the Greek Parliament passed law 4936/2022 entitled “National Climate Law - Transition to climate neutrality and adaptation to climate change, urgent provisions to address the energy crisis and protect the environment” (Government Gazette 105 / A / 27-05-2022). The Greek Climate Law is part of the Greek and European climate change legislation.</p> <p>According to the definitions of the Law, climate neutrality is defined as the balance of anthropogenic greenhouse gas emissions from sources and their absorptions by carbon sinks. A carbon sink is defined as any process, activity or mechanism that absorbs greenhouse gas, aerosol or greenhouse gas precursor from the atmosphere. Net emissions are, therefore, greenhouse gas emissions from sources after absorption from carbon sinks.</p> <p>At European Union (“EU”) level, Regulation (EU) 2021/1119 (“European Climate Law”) has been enacted, obliging member-states to implement the European Green Deal, to achieve climate neutrality by 2050 in respect of their national emissions of net greenhouse gases and to reduce them by 55% as intermediate target until 2030. Furthermore, as of July 2021, the European Union is gradually adopting the Fit for 55 package of legislative initiatives, which consists of sectoral measures and policies to achieve the objectives of the European Climate Law in the areas of the EU Emissions Trading System, emissions from land use, change of land use and forestry activities, renewable energy sources, energy efficiency, alternative fuels infrastructure, transport, energy taxation and the carbon border adjustment mechanism (“CBAM”).</p>
GHG Emission Intensity Trajectory and Targets		The National Climate Law, adopted in May 2022, sets targets to reduce total greenhouse gas (GHG) emissions by 55% by 2030, by 80% by 2040 and to reach net zero emissions by 2050. A revised NECP for 2025-2050 aims even more reduction of 58% in greenhouse gases by 2030. The plan foresees that the share of renewable energy sources in electricity generation – currently around 57% – will increase to 75% by 2030 and 95.6% by 2035.
Monitoring and Reporting Process		<p>The legal entities submit, by 31 October 2023, to a publicly accessible electronic database implemented and operated by the Natural Environment and Climate Change Organisation, a report on their carbon footprint for the reference year 2022.</p> <p>The report shall include voluntary targets and actions to reduce or offset emissions. The report shall be updated and verified per year.</p>

Verification and Assessment of Performance	Submit CBAM reports on a quarterly basis: Importers of goods (or their indirect customs representative) will have to report greenhouse gas emissions (GHG) embedded in their imports (direct and indirect emissions) during a given quarter of a calendar year, without making any financial payments or adjustments. The report shall be submitted no later than one month after the end of that quarter. The obligation to submit the CBAM report on a quarterly basis will cover the whole transitional period from 01/10/2023 to 31/12/2025.
Issuance and Surrender of Carbon Credit Certificate	Validation by a third-party, registration with a recognized standard, monitoring A certificate is required by law to accompany the carbon footprint report .The certificate should be issued by an independent auditor, who meets the minimum requirements laid down in Commission Regulation (EU) 600/2012 of 21 June 2012 on the verification of reports on greenhouse gas emission.
Trading of Carbon Credit Certificates	Domestic market-based instruments are complemented by regulated international carbon markets, which allow countries to pursue collaborative approaches to reach their climate targets, and voluntary carbon markets, where private actors voluntarily buy and sell carbon credits. Carbon Market for Greece System will operate in 2025.
Banking of Carbon Credit Certificates	N/A
Compliance with GHG Emission Intensity Targets	In case the obligated entity has non-timely submitted the report a fine of fifty (50) euros is imposed for each day of delay.



INDIA

Definitons	Activity data	Activity data means the quantity of fuels, energy, or materials consumed or produced by a process relevant for the Greenhouse Gas (GHG) emission calculations.
	Baseline year	Baseline year means the financial year in which a base level of GHG emissions is used as a reference point for establishment and assessment of greenhouse gas emissions intensity, based on verified data submitted by the obligated entity
Compliance Mechanism		The Central Government shall notify the GHG emission intensity targets in terms of tonnes of carbon dioxide equivalent (tCO ₂ e) per unit of equivalent product or output for each year of the defined trajectory period for the obligated entities.
		An obligated entity, once notified in any trajectory period, must comply with the assigned GHG emission intensity targets for each annual year, known as the compliance year
		An obligated entity failing to meet the target GHG emission intensity in a compliance year must surrender Carbon Credit Certificates (CCC).
		In case of the CCC to be surrendered, the obligated entities may surrender the banked CCCs or purchase the Carbon Credit Certificates (CCC) to comply with the GHG emission intensity targets in each compliance year
GHG Emission Intensity Trajectory and Targets		For the compliance mechanism under CCTS, the greenhouse gases to be covered are carbon dioxide (CO ₂) and perfluorocarbon (PFCs) gases
		The GHG emission intensity targets shall be notified for the trajectory period and the annual targets shall be specified for each compliance year to be complied with by the respective obligated entity
		The GHG emissions intensity shall be calculated for the baseline year from the verified data (for calculation of GHG emissions and emissions intensity) submitted by the obligated entity to the Government
Monitoring and Reporting Process		The obligated entity shall monitor greenhouse gas emissions based on the monitoring plan and shall submit the monitoring plan to the Governemtn within three months from the commencement of the first trajectory period.
Verification and Assessment of Performance		Every obligated entity shall, within four months of the conclusion of the compliance year, submit to Government the performance assessment document in Form 'A' covering the performance for the relevant compliance year, specifying the compliance with GHG emission intensity targets, duly verified together with certificate of verification in Form 'B' given by an accredited carbon verification agency and accompanied by the requisite documents
Issuance and Surrender of Carbon Credit Certificate		The Government shall issue the carbon credit certificates to the concerned obligated entity within two weeks from the date of receipt of such recommendation from the NSC-ICM on the ICM registry.

Trading of Carbon Credit Certificates	The CCC shall be traded over the power exchanges as per the procedure defined by the Central Electricity Regulatory Commission (CERC) under the 'terms and conditions' for trading of CCC under the ICM
Banking of Carbon Credit Certificates	On completion of the compliance year, the remaining Carbon Credit Certificates (CCC) from that year may be banked for use in subsequent compliance years.
Compliance with GHG Emission Intensity Targets	The obligated entity, for the purpose of achieving the compliance with the GHG emission intensity targets of the trajectory period, shall prepare the long-term action plan (at least five years) for greenhouse gas emissions reduction.
	The obligated entity shall furnish the status of compliance in the form of 'Compliance Assessment Document' in FORM D



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MALTA

<p>Definitons</p>	<p>Activity data</p>	<p>Under Malta’s carbon credit market regulations, “activity data” typically refers to the quantifiable information associated with activities that result in greenhouse gas (GHG) emissions or removals. This data is crucial for calculating the emissions reductions achieved through specific carbon offset projects.</p> <p>In the context of carbon markets, activity data generally includes measurements related to energy consumption, production levels, fuel use, and other operational metrics that can be directly linked to GHG emissions. For example, it may cover the amount of electricity consumed, tonnes of waste processed, or volume of fuel combusted. This data is used alongside emission factors (which provide the GHG emissions per unit of activity) to calculate the total emissions from a particular activity.</p> <p>In Malta’s carbon credit market, the specific definition of activity data may vary slightly depending on the scheme or regulatory framework in place, but it generally focuses on data that is essential for the verification and quantification of carbon credits in offsetting projects.</p>
	<p>Baseline year</p>	<p>Under Malta’s Carbon Credit Market regulations, the term baseline year refers to a specific year against which a project’s greenhouse gas (GHG) emissions or removals are measured in order to establish a reference point for calculating emissions reductions. The baseline year serves as the starting point for evaluating changes in emissions that result from carbon offset projects.</p> <p>In the context of carbon credits, the baseline year represents the level of emissions before any emissions reduction activities are implemented. It is crucial for determining how much a project has reduced or removed emissions over time. The emissions or activity levels in the baseline year are compared to the emissions in subsequent years to quantify the number of carbon credits generated by the project.</p> <p>In some cases, regulations may specify criteria for selecting the baseline year, such as choosing a year that accurately reflects “normal” operations or emissions patterns before the project began.</p>



Compliance Mechanism	<p>Under Malta’s Carbon Credit Market regulations, the compliance mechanism refers to the framework established to ensure that entities or participants in the carbon credit market adhere to the rules and requirements set by the regulatory authorities. This mechanism ensures the integrity of the market by making sure that carbon credits are generated, traded, and used in a way that aligns with Malta’s climate goals and international standards.</p> <p>The key components of the compliance mechanism typically include:</p> <p>Monitoring, Reporting, and Verification (MRV):</p> <p>Participants must monitor and report their greenhouse gas (GHG) emissions, as well as any emissions reductions achieved through carbon offset projects. Independent verification bodies must verify this data to ensure its accuracy and compliance with regulations. The MRV process is central to certifying that carbon credits are legitimate and based on actual emissions reductions.</p> <p>Cap-and-Trade (if applicable):</p> <p>Some compliance markets operate under a cap-and-trade system where the government sets a cap on total emissions for certain sectors or companies. Entities must hold enough carbon credits (or allowances) to cover their emissions, creating a financial incentive to reduce emissions. If they exceed their limit, they must buy credits; if they reduce emissions below their cap, they can sell surplus credits.</p> <p>Penalties for Non-Compliance:</p> <p>Entities that fail to comply with the regulations (e.g., by not acquiring sufficient carbon credits or by falsifying emissions data) may face financial penalties, sanctions, or other enforcement measures. These penalties are in place to discourage non-compliance and ensure market integrity.</p> <p>Auditing and Review:</p> <p>Regular audits may be conducted to review the performance of participants in the carbon credit market. This could involve checking the accuracy of reported data, the validity of the projects generating credits, and whether all activities align with the market’s rules.</p> <p>Eligibility and Certification of Projects:</p> <p>Only approved projects that meet certain criteria can generate carbon credits. This ensures that the emissions reductions are real, measurable, and additional (i.e., they would not have occurred without the project). The compliance mechanism ensures that projects are properly vetted and certified.</p> <p>The goal of the compliance mechanism is to ensure transparency, accuracy, and accountability within the carbon market, ensuring that credits are credible and that Malta meets its climate targets under EU and international agreements.</p>
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GHG Emission Intensity Trajectory and Targets	<p>Under Malta’s Carbon Credit Mechanism regulations, the GHG emission intensity trajectory and targets refer to the structured plan and specific goals set by the Maltese government to reduce greenhouse gas (GHG) emissions per unit of economic activity or output over a period of time. These targets and the trajectory serve as a roadmap for reducing overall emissions intensity in line with national, EU, and international climate commitments, particularly those aligned with the European Green Deal and the Paris Agreement.</p>
	<p>Key Aspects of GHG Emission Intensity Trajectory and Targets:</p> <p>Emission Intensity: Emission intensity is typically defined as the amount of GHG emissions (measured in tonnes of CO2 equivalent) emitted per unit of GDP, energy output, or other economic measures. Malta’s regulations would specify how this intensity is expected to decrease over time as part of its climate strategy.</p> <p>Trajectory: The GHG emission intensity trajectory outlines the expected reduction pathway over time. This includes setting incremental targets that entities, industries, or sectors must achieve annually or over set periods (e.g., by 2030 or 2050). The trajectory is designed to progressively lower emissions in a manageable and measurable way.</p> <p>Targets: Malta’s carbon credit market regulations likely include specific GHG emission reduction targets, which may be set in terms of percentage reductions from a baseline year (such as 1990 or 2005) or in absolute terms for specific sectors or industries. These targets could be aligned with the broader European Union’s goals for reducing emissions, such as the EU’s 2030 goal to cut emissions by at least 55% compared to 1990 levels, and its aim to achieve net-zero emissions by 2050.</p> <p>Sector-Specific Trajectories: Certain sectors, such as energy, transport, and manufacturing, may have their own emission intensity targets and reduction pathways, depending on their contribution to Malta’s overall emissions. For example, the energy sector may be expected to decarbonize faster than other sectors due to the availability of renewable energy technologies.</p>
	<p>Link to Carbon Credit Market: The carbon credit market is an important tool for entities that need flexibility in meeting their GHG emission intensity targets. Through the purchase of carbon credits from verified emissions reduction projects, entities can offset emissions that they cannot immediately reduce, thereby helping them stay on track with Malta’s prescribed emission intensity trajectory.</p> <p>Compliance and Review: The progress toward meeting these GHG intensity targets is typically reviewed regularly through Malta’s Monitoring, Reporting, and Verification (MRV) system. Adjustments to the trajectory or targets may be made based on updated scientific data, economic conditions, or international obligations.</p> <p>EU Alignment: Malta’s targets and trajectory are aligned with the broader climate and energy policies of the European Union. The EU’s key climate goals, such as reducing overall GHG emissions by 55% by 2030 (compared to 1990 levels) and reaching climate neutrality by 2050, directly influence Malta’s domestic climate policy and regulations. These GHG emission intensity targets and trajectories are central to Malta’s transition to a low-carbon economy, leveraging the carbon credit market to help achieve reductions while maintaining economic growth.</p>

Monitoring and Reporting Process

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Under Malta's Carbon Credit Market regulations, the monitoring and reporting process is a crucial mechanism to ensure transparency, accountability, and accuracy in tracking greenhouse gas (GHG) emissions and the effectiveness of carbon offset projects. This process forms the backbone of Malta's efforts to reduce emissions and meet its climate obligations. It also supports the issuance, verification, and trading of carbon credits by ensuring that emissions reductions are genuine and measurable.

Key Components of the Monitoring and Reporting Process:

Monitoring, Reporting, and Verification (MRV) Framework: The MRV system is designed to ensure that GHG emissions and carbon credit generation are monitored accurately and reported in a timely manner. The process typically includes the following steps:

Monitoring: Entities must collect and track data related to their GHG emissions and emissions reduction activities, such as energy usage, fuel consumption, industrial output, or carbon sequestration efforts.

Reporting: Entities submit periodic reports (often annually) detailing their GHG emissions, reductions, and carbon credit generation. These reports follow prescribed formats and methodologies outlined by the regulator.

Verification: Independent, accredited third-party verifiers audit the reported data to ensure accuracy, completeness, and compliance with regulatory standards. Only verified emissions reductions are eligible for carbon credit issuance.

Emissions Data Collection: The monitoring process involves gathering comprehensive data on all activities that result in GHG emissions or reductions. This data typically includes:

Direct emissions from sources owned or controlled by the entity (e.g., emissions from fuel combustion).

Indirect emissions related to the entity's energy consumption (e.g., purchased electricity or heat).

Activity data, such as the quantity of energy consumed, materials processed, or services provided, which are used in conjunction with emission factors to calculate total emissions.

Calculation and Reporting Methodologies: Entities must follow specific methodologies, typically based on international standards like the Intergovernmental Panel on Climate Change (IPCC) guidelines or the Greenhouse Gas Protocol, to calculate and report their emissions. These methodologies ensure that all reported data is consistent, transparent, and comparable across sectors and over time.

Frequency of Reporting:

Reporting of GHG emissions and project performance typically occurs annually, although certain high-emitting sectors or large projects may be required to submit reports more frequently.

Reports must be submitted within a specified time frame following the end of the reporting period, often aligned with Malta's and the EU's compliance timelines.

Verification and Certification:

Independent verifiers, accredited by Malta's regulatory authorities, must review the data submitted by entities and certify that the reported emissions reductions are accurate and in compliance with the relevant regulations.

The verifier assesses whether the monitoring practices were conducted correctly and whether the emission factors, baselines, and data sources were appropriate and consistent with regulatory standards.

After verification, a certification is issued, which is required before carbon credits can be officially registered and traded on the market.

Issuance of Carbon Credits: Once the verified report is accepted by the regulatory body, carbon credits equivalent to the amount of verified emissions reductions are issued to the entity or project. These credits can then be traded or used to offset emissions.

Public Reporting and Transparency: Many carbon markets, including Malta's, incorporate public reporting requirements to enhance transparency. Certain emissions data and carbon credit issuance information may be made available to the public or other stakeholders to ensure accountability and trust in the market.

Compliance Audits: Regulatory authorities in Malta may conduct random or periodic audits to ensure that entities are complying with the monitoring and reporting requirements. Entities found to be non-compliant could face penalties, sanctions, or loss of certification.

<p><i>... continued from previous page</i></p> <p>Monitoring and Reporting Process</p>	<p>Role of Technology in the Monitoring Process:</p> <p>Digital platforms and systems may be used to streamline the data collection, reporting, and verification processes. These platforms ensure that the information is submitted in a consistent format and can be easily audited.</p> <p>Some projects may also use advanced technologies, such as satellite monitoring for forestry and land-use projects or smart meters for energy consumption tracking, to ensure accurate data collection.</p> <p>Integration with the EU Emissions Trading System (EU ETS):</p> <p>Malta’s carbon credit market regulations may align closely with the EU ETS, which also has a strict MRV system. Entities that are part of both systems would likely have harmonized reporting requirements to avoid duplication and ensure consistency across different compliance obligations.</p> <p>In summary, the monitoring and reporting process under Malta’s carbon credit market regulations ensures that GHG emissions and emissions reductions are accurately measured, transparently reported, and independently verified. This process supports the credibility of the carbon market and helps Malta achieve its climate goals by ensuring that emissions reductions are real, measurable, and verifiable.</p>
<p>Verification and Assessment of Performance</p> <p><i>continued on next page...</i></p>	<p>Under Malta’s Carbon Credit Market regulations, the verification and assessment of performance are essential steps to ensure the integrity, accuracy, and credibility of carbon credits generated from emissions reduction or offset projects. These processes provide third-party assurance that the reported emissions reductions are real, additional, measurable, and permanent, aligning with both national and international standards.</p> <p>Key Components of Verification and Assessment:</p> <p>Independent Verification: Independent verification is the cornerstone of the carbon credit market. It ensures that:</p> <ul style="list-style-type: none"> Emissions reductions claimed by projects are accurately calculated and reported. The projects comply with the applicable rules, methodologies, and standards set by Malta’s regulatory authorities and/or international frameworks. This process is carried out by accredited third-party verifiers, who are typically independent auditing firms or certification bodies approved by the Maltese government or an international accreditation organization. <p>Verification Process: The verification process generally involves the following steps:</p> <p>Review of Monitoring Reports:</p> <p>The verifier reviews the monitoring reports submitted by the entity or project developer. These reports contain the GHG emissions data, activity data, and calculations of the emissions reductions achieved during a specific reporting period. The verifier checks that all data aligns with the prescribed methodologies and standards.</p> <p>On-Site Inspections (if applicable):</p> <p>Depending on the project type, verifiers may conduct physical inspections or site visits to assess whether the project is being implemented as described and whether the reported emissions reductions are accurate. This is common in projects involving renewable energy installations, forestry, or land-use changes, where physical verification is necessary to validate actual performance.</p>

<p>... continued from previous page</p> <p>Verification and Assessment of Performance</p> <p>continued on next page...</p>	<p>Validation of Methodologies: The verifier ensures that the appropriate emissions factors, baseline scenarios, and monitoring methodologies were applied correctly and consistently. This validation confirms that the emissions reductions are “additional” (i.e., they would not have occurred without the project) and meet all regulatory requirements.</p> <p>Data Accuracy and Completeness: Verifiers assess the accuracy of the reported data and check for any gaps or inconsistencies. They may use statistical sampling or data cross-checks to ensure that the reported figures are reliable and comprehensive.</p> <p>Assessment of Performance: The assessment of performance involves evaluating the overall effectiveness and impact of the emissions reduction project. Key aspects include:</p> <p>Emissions Reductions Achieved: The verifier confirms the volume of GHG emissions reductions achieved by the project during the reporting period. This is compared to the project’s original targets and baseline emissions to ensure that the reduction is real and measurable.</p> <p>Compliance with Regulatory Standards: The project is assessed for compliance with both local regulations (set by Maltese authorities) and any international standards (e.g., those under the Clean Development Mechanism or the Verified Carbon Standard). The project must meet all requirements for eligibility, additionality, and permanence.</p> <p>Environmental and Social Co-Benefits (if applicable): Some projects may also be assessed for their broader environmental and social impacts, such as improvements in air quality, biodiversity conservation, or local community benefits. While these co-benefits are not always required for carbon credit issuance, they can enhance the overall value and impact of the project.</p> <p>Issuance of Verification Report: Once the verification process is complete, the verifier produces a detailed verification report, which is submitted to the regulatory authority in Malta. This report includes: A summary of the emissions reductions achieved. An assessment of the project’s adherence to approved methodologies and standards. Any recommendations for improving monitoring or reporting in future periods. The verification report is a key document that allows the project to proceed to the next step: the issuance of carbon credits.</p> <p>Issuance of Carbon Credits: After the verification report is reviewed and accepted by the regulatory body, carbon credits equivalent to the verified emissions reductions are issued to the project developer or entity. These credits can then be traded on the carbon market or used by entities to offset their own emissions.</p> <p>Frequency of Verification: Verification is usually conducted on an annual basis or at the end of each reporting period. However, the frequency may vary depending on the project type, the size of the emissions reductions, or the specific requirements of the carbon credit scheme in which the project is participating.</p> <p>Third-Party Accreditation and Standards: The verification bodies themselves must be accredited by an independent authority to ensure that they are qualified to perform the assessment. In Malta, verifiers may need accreditation from EU-recognized bodies or compliance with international standards like ISO 14064, which governs the validation and verification of GHG emissions. The verification process typically aligns with international standards such as the Verified Carbon Standard (VCS), Gold Standard, or the Clean Development Mechanism (CDM) under the Kyoto Protocol, ensuring that projects are consistent with global best practices.</p> <p>Audit and Oversight: In addition to independent verification, Malta’s regulatory authorities may perform periodic audits of projects or verification processes to ensure overall market integrity. This oversight adds another layer of credibility to the carbon credit market by confirming that verifiers and project developers follow the rules consistently.</p>
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<p><i>... continued from previous page</i></p> <p>Verification and Assessment of Performance</p>	<p>Importance of Verification and Assessment:</p> <p>The verification and assessment of performance under Malta’s Carbon Credit Market regulations ensure that:</p> <p>Carbon credits represent real, measurable, and verifiable emissions reductions.</p> <p>The integrity of the carbon market is maintained, preventing fraudulent claims and ensuring that credits are legitimate.</p> <p>Malta’s climate commitments, both under EU regulations and international agreements, are met through credible emissions reductions.</p> <p>In summary, the verification and assessment of performance are critical processes that validate the claims of carbon offset projects and ensure that carbon credits issued in Malta’s carbon market are based on accurate and trustworthy data. This framework builds confidence among market participants and supports Malta’s efforts to meet its climate targets.</p>
<p>Issuance and Surrender of Carbon Credit Certificate</p> <p><i>continued on next page...</i></p>	<p>Under Malta’s Carbon Credit Market regulations, the issuance and surrender of carbon credit certificates are key steps in the operation of the carbon credit market, ensuring that greenhouse gas (GHG) emissions reductions are accounted for, and that organizations or individuals can use these reductions to meet their climate obligations.</p> <p>1. Issuance of Carbon Credit Certificates:</p> <p>The issuance of carbon credit certificates refers to the process where verified emissions reductions or carbon offset credits are formally recognized and converted into tradable certificates or units. These certificates represent one tonne of carbon dioxide equivalent (CO₂e) removed or avoided.</p> <p>Key Steps in the Issuance Process:</p> <p>Project Development and Verification: The process begins with the development of a carbon offset project, which could involve activities like renewable energy projects, reforestation, or industrial efficiency improvements. The project must be monitored, and its emissions reductions must be verified by an accredited third-party verifier.</p> <p>Submission of Verification Report: After the emissions reductions are verified, the project developer submits the verification report to the relevant regulatory authority or carbon credit registry in Malta. This report provides evidence that the project has achieved the claimed emissions reductions, in compliance with approved methodologies and standards.</p> <p>Certification and Issuance of Carbon Credits: Based on the verification report, the regulatory body (or a designated registry) certifies the emissions reductions and issues carbon credit certificates. Each certificate represents a specific amount of emissions reduced (usually one tonne of CO₂e). The certificates are then recorded in a national or international carbon registry, which tracks the ownership and transfer of the credits.</p> <p>Registration and Tracking: Issued carbon credit certificates are registered in a carbon credit registry (either Malta’s own registry or a recognized international registry) to ensure transparency and prevent double-counting. This registry tracks the lifecycle of each credit—from issuance to retirement or surrender—allowing for accurate reporting and tracking of emissions reductions.</p>

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**Issuance and
Surrender of
Carbon Credit
Certificate**

2. Surrender of Carbon Credit Certificates:

The surrender of carbon credit certificates refers to the process where organizations or individuals “retire” or relinquish their carbon credits to offset their GHG emissions. This process is essential for compliance in regulated markets or for voluntary emissions reductions in voluntary markets.

Key Steps in the Surrender Process:

Compliance or Voluntary Use:

Compliance Markets: In regulated markets (such as the EU Emissions Trading System), companies or entities with emissions obligations (e.g., power plants, industries) must surrender enough carbon credit certificates to match their GHG emissions for a specific reporting period. If they emit more CO2 than allowed, they must either reduce their emissions or buy and surrender additional carbon credits to cover the excess.

Voluntary Markets: In voluntary markets, companies, organizations, or individuals can surrender carbon credits to voluntarily offset their emissions as part of their sustainability or corporate social responsibility efforts. This is common for companies that want to achieve carbon neutrality or meet other environmental goals.

Process of Surrendering:

The entity or individual holding carbon credit certificates submits them to the regulatory authority or carbon registry to surrender or retire the credits. Surrendering removes the carbon credits from circulation, ensuring they cannot be used again.

Once surrendered, the carbon credits are marked as “retired” in the registry. This ensures that the emissions reductions associated with those credits are permanently accounted for and cannot be reused or resold.

Timing of Surrender:

In compliance markets, the surrender of credits usually takes place at the end of a compliance period (often annually), when companies must demonstrate that they hold enough credits to cover their emissions for that period.

In voluntary markets, surrendering can happen at any time, depending on the needs and goals of the company or individual offsetting their emissions.

Summary:

In Malta’s Carbon Credit Market, the issuance of carbon credit certificates is the process by which verified emissions reductions are converted into tradable units, representing a tangible reduction in GHG emissions. The surrender of these certificates is the formal process by which entities use the credits to offset their emissions, either to comply with regulatory obligations or voluntarily. Both issuance and surrender processes are rigorously monitored, ensuring transparency, accountability, and the integrity of the carbon credit system, while helping Malta meet its national and international climate targets.

<p>Trading of Carbon Credit Certificates</p>	<p>The trading of carbon credit certificates under Malta’s Carbon Credit Market regulations refers to the process by which carbon credits, once issued, are bought and sold between participants in the market. This trading mechanism is essential for facilitating emissions reductions in a cost-effective way, allowing entities to meet their emissions reduction obligations or voluntary commitments. As part of the EU ETS, Malta’s compliance market is subject to the EU-wide cap-and-trade system. This system:</p> <ul style="list-style-type: none"> • Sets a cap on the total amount of greenhouse gases that regulated entities in certain sectors (such as energy and manufacturing) can emit. • Issues emissions allowances equivalent to this cap, which can be traded among companies. If a company exceeds its emissions cap, it must purchase additional allowances or credits; if it emits less than its cap, it can sell its surplus allowances or credits. • Aligns with the EU’s climate goals, including the target of reducing emissions by 55% by 2030 (compared to 1990 levels) and achieving net-zero emissions by 2050. <p>Summary</p> <p>Under Malta’s carbon credit market regulations, the trading of carbon credit certificates allows entities to buy and sell verified emissions reductions. This trading occurs in both compliance and voluntary markets, providing flexibility for businesses to meet their emissions targets cost-effectively while incentivizing investment in emissions reduction projects. The process is regulated to ensure market integrity, with oversight through registries and verification systems, ensuring that traded credits represent real, verifiable, and permanent emissions reductions.</p>
<p>Banking of Carbon Credit Certificates</p>	<p>The banking of carbon credit certificates under Malta’s carbon credit market regulations, particularly within the framework of the EU Emissions Trading System, allows entities to strategically manage their emissions reductions and compliance costs. By holding credits for future use, entities can plan for price fluctuations, regulatory changes, and future compliance needs. The banking process is supported by a transparent registry system that ensures proper tracking and accounting of banked credits. While banking provides flexibility and cost savings, it also carries risks related to market volatility and regulatory shifts.</p>
<p>Compliance with GHG Emission Intensity Targets</p>	<p>Compliance with GHG (Greenhouse Gas) emission intensity targets under Malta’s carbon credit market regulations involves adhering to specific limits on emissions relative to economic output or activity levels. Malta’s approach aligns with broader EU initiatives, particularly the EU Emissions Trading System (EU ETS), which sets frameworks for emissions reductions, including intensity targets.</p> <p>Compliance with GHG emission intensity targets under Malta’s carbon credit market regulations is a vital component of the country’s climate strategy. By setting clear targets, establishing monitoring and reporting requirements, and implementing enforcement mechanisms, Malta aims to foster a culture of sustainability and accountability among businesses and sectors. Effective compliance not only supports national and international climate goals but also drives innovation and economic growth within the framework of a low-carbon economy.</p>



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PORTUGAL

Definitons	Activity data	A carbon credit is a tradable unit that represents one tonne of CO ₂ e (tCO ₂) reduced or sequestered by an activity carried out by a carbon project registered on the voluntary carbon market. Project types may vary within the GHG emissions reduction or carbon sequestration category, and any type of project is eligible provided there is an approved carbon methodology for that type and the project complies with the various principles and rules defined therein, whether in the context of the industry, transport, energy, buildings, waste, agriculture or forestry sectors.
	Baseline year	NA
Compliance Mechanism	<p>The methodologies should establish, without prejudice to other relevant aspects:</p> <ul style="list-style-type: none"> • Eligibility criteria and guidelines on assessing the additionality of the project, including for determining the reference scenario; • Method for quantifying (ex ante and ex post) the GHG emission reductions or carbon sequestration associated with the carbon project, based on the project's duration and in accordance with existing good practices; • Duration of the carbon project, including, where applicable, the minimum and maximum durations, as well as relevant information on the possibility of renewing this period and guidelines for defining the start of project implementation; • Guidelines for determining risks, including emission reversal risks, and measures to mitigate these risks; • Requirements for monitoring, reporting and verification, namely for the monitoring plan, the monitoring report and the verification report, including specification of the periodicity of submission of said reports; • Guidelines for determining potential externalities and indicators for assessing them during the course of the project. 	
	<p>Any organisation can submit a methodology via the electronic means made available for this purpose. The methodologies submitted will be subject to the opinion of the Technical Monitoring Committee (TMC) and a public consultation process, in order to ensure and encourage the democratic participation of all interested parties prior to approval by Portuguese Environment Agency (APA, I.P.), Institute for Nature Conservation and Forests (ICNF) and Directorate-General for Natural Resources, Safety and Maritime Services (DGRM), where applicable.</p>	
	<p>The first methodologies are being developed and should be put out to public consultation by the end of 2024. If there is no methodology under discussion or approved for a type of project you wish to submit to the MVC, the promoter can submit a methodology proposal, following the methodology template.</p>	
	<p>The reliability and credibility of the carbon credits generated under the MVC are guaranteed by:</p> <ul style="list-style-type: none"> • existence of a robust and independent process for monitoring, reporting and verifying projects and credits; • the use of methodologies validated by a Technical Monitoring Committee, which consider reference scenarios that reflect, in a reasonable and conservative way, the situation that would exist in the absence of the project to account for the reduction of GHG emissions or carbon sequestration; • monitoring of market activity by the supervisory and management bodies. 	

GHG Emission Intensity Trajectory and Targets	NA
Monitoring and Reporting Process	<p>The types of project eligible for the Voluntary Carbon Market are specified by the carbon methodologies, which are developed either at the initiative of the Technical Monitoring Committee (TMC) or at the initiative of third parties, subject to approval by the Portuguese Environment Agency (APA, I.P.).</p> <p>The project promoter must submit their project application via the registration platform, with a view to its certification on the Voluntary Carbon Market. This application must be accompanied by the respective validation report, drawn up by a qualified auditor, which must certify that the project complies with the minimum rules and requirements stipulated in the respective carbon methodology.</p> <p>After registering on the Voluntary Carbon Market, the project and its results will be visible so that any individual, entity or organisation can invest in it by purchasing the carbon credits it has available, credits that will be generated over the course of the project's development, subject to monitoring and confirmation by a verification process.</p> <p>All transactions must be registered on the registration platform, and the credits must be cancelled by the buyer whenever they are acquired for the purpose of offsetting emissions or contributing to climate action.</p>
Verification and Assessment of Performance	<p>Carbon projects are subject to an initial validation process and a periodic verification process by a duly qualified independent verifier, in accordance with the criteria set out in Ministerial Order 240/2024/1 of 2 October.</p> <p>Verifiers of the Voluntary Carbon Market are natural persons, acting in their individual name or on behalf of a legal person, independent of the project promoter, and holders of a qualification certificate issued by the organisation managing the qualification system.</p> <p>The MVC verifier qualification is carried out according to the categories associated with the following groupings of sectors of activity:</p> <ul style="list-style-type: none"> • Energy: fuel extraction and production; fuel burning and transport; • Industrial Processes: industrial processes; production and use of fluorinated gases; non-energy uses of fuels; • Agriculture: livestock farming; use of nitrogen fertilisers; burning of agricultural waste; • Land use: carbon in the biomass and soil of forests, agriculture, pastures and other land uses; rural fires; • Wetlands and marine areas: management of marine and coastal ecosystems; • Waste: solid waste and wastewater. <p>The verifier is responsible for the initial validation of the project and for verifying the effective reduction of greenhouse gas emissions or carbon sequestration by the project, with reference to the applicable methodology and the monitoring plan and report.</p>
Issuance and Surrender of Carbon Credit Certificate	<p>The competent bodies within the scope of the MVC are:</p> <p>APA - Agência Portuguesa do Ambiente, I.P., as the supervisory body;</p> <p>ADENE - Agência para a Energia, as the managing body of the project and credit registration platform.</p>

Trading of Carbon Credit Certificates	The price of each carbon credit will depend on a number of factors and should be agreed between the project promoter or credit holder and the respective buyer.
Banking of Carbon Credit Certificates	NA
Compliance with GHG Emission Intensity Targets	NA



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SINGAPORE

Definitons	Activity data	A carbon credit means - (a) a certificate reresenting an amount of greenhouse gas emissions reduction or removal, generated from any project or programme, and includes a Certificate representing the avoidance of an amount of such emissions; (b) a right to emit any greenhouse gas; or c) a means to satisfy any tax or regulatory obligation arising from the emission of any greenhouse gas, and includes a carbon credit issued by the National Environment Agency (NEA) for businesses to meet their carbon tax obligations in Singapore.
	Baseline year	1) Sustainability Reporting - (a) mandatory annual sustainability reporting; and (b) for most companies Task Force on climate-Related financial Disclosures (TCFD) reporting on a “comply or explain basis”; and 2) Mandatory TCFD Reporting - for (a) SGX-listed companies in finance, agriculture, food and forest products and energy industries (from 2024); and (b) SGX-listed companies in materials and buildings, and transportation industries (from 2025).
Compliance Mechanism	An obligated entity, once notified in any trajectory period, must comply with the assigned GHG emission intensity targets for each annual year, known as the compliance year	
	An obligated entity failing to meet the target GHG emission intensity in a compliance year must surrender Carbon Credit Certificates (CCC).	
	In case of the CCC to be surrendered, the obligated entities may surrender the banked CCCs or purchase the Carbon Credit Certificates (CCC) to comply with the GHG emission intensity targets in each compliance year	
GHG Emission Intensity Trajectory and Targets	For the compliance mechanism under CCTS, the greenhouse gases to be covered are carbon dioxide (CO2) and perfluorocarbon (PFCs) gases	
	The GHG emission intensity targets shall be notified for the trajectory period and the annual targets shall be specified for each compliance year to be complied with by the respective obligated entity	
	The GHG emissions intensity shall be calculated for the baseline year from the verified data (for calculation of GHG emissions and emissions intensity) submitted by the obligated entity to the Government	
Monitoring and Reporting Process	The monitoring and reporting of greenhouse gas emissions must be robust, transparent, consistent and accurate for the SG emissions trading system (SG ETS) to operate effectively.	

Verification and Assessment of Performance - Certify carbon credits	The verification process typically starts with the project developers who implement carbon reduction activities and generate the credits. They need to provide evidence of the carbon reduction, such as monitoring data, project reports, and other relevant documentation.
Issuance and Surrender of Carbon Credit Certificate	Carbon credits are issued/verified by government registries or independent standards/registries such as Verra, Gold Standard, Climate Action Reserve and American Carbon Registry. Each verified carbon credit would be issued with a unique serial number, hence it is not an unallocated commodity for the purpose of GST. The Central Government, or any agency authorised by it may issue carbon credit certificate to the registered entity which complies with the requirements of the carbon credit trading scheme.
Carbon credits in Singapore	Carbon credits, or carbon offsets, refer to carbon emissions reductions or removals, measured in tonnes of carbon dioxide equivalent (tCO ₂ e).
Trading of Carbon Credit Certificates	A country could sell its surplus credits to countries that didn't achieve their Koto-level goals through an Emissions Reduction Purchase Agreement (ERPA) if it emitted less than its target amount of hydrocarbons.
Banking of Carbon Credit Certificates	Obtain a more extensive picture of corporate-climate performance and ambition to ensure the lending book is consistent with the overall climate strategy. Identify and purchase high-integrity, cost-effective carbon credits for the bank's own use. Track company use of carbon credits within the lending book and investment portfolio.
Compliance with GHG Emission Intensity Targets	The obligated entity, for the purpose of achieving the compliance with the GHG emission intensity targets of the trajectory period, shall prepare the long-term action plan (at least five years) for greenhouse gas emissions reduction. The obligated entity shall furnish the status of compliance in the form of 'Compliance Assessment Document' in FORM D

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SPAIN

Greenhouse Gas Emissions Trading Scheme (as a part of the European Union Emissions Trading System)		
Definitons	Tonne of carbon dioxide equivalent	Tonne of carbon dioxide equivalent: a metric tonne of carbon dioxide (CO ₂) or any other greenhouse gas with an equivalent global warming potential.
	Emission allowance	An emission allowance corresponds to the emission of one tonne of carbon dioxide equivalent, from a facility or an aircraft that carries out one of the activities included in the Greenhouse Gas Emissions Trading Scheme, during a given period.
	Greenhouse gas emission permit	Permit required for facilities that carry out activities included in the Greenhouse Gas Emissions Trading Scheme, which generate the emissions specified therein.
Operation mechanism in Europe	<p>On 14 July 2021, the European Commission adopted a series of legislative proposals setting out how it intends to achieve climate neutrality in the EU by 2050, including the intermediate target of an at least 55% net reduction in greenhouse gas emissions by 2030.</p> <p>The package proposes to revise several pieces of EU climate legislation, including the European Union Emissions Trading System (EU ETS).</p> <p>The overall volume of greenhouse gases that can be emitted by power plants, industry factories and aviation sector covered by the EU Emissions Trading System is limited by a 'cap' on the number of emission allowances. Within the cap, companies receive or buy emission allowances, which they can trade as needed. The cap decreases every year, ensuring that total emissions fall.</p>	
	<p>The Union-wide cap for 2021 from stationary installations was fixed at 1,571,583,007 allowances. Emission allowances in the market is data that varies and is often updated.</p> <p>From the 2021-2020 EU ETS period, the cap on emissions continued to decrease annually at an increased annual linear reduction factor of 2.2%, in line with the goal of reducing net greenhouse gas emissions by at least 55% compared to 1990 levels by 2030.</p> <p>The reduction factor has been increased to 4.3% per year over the period 2024-2027 and to 4.4% per year from 2028.</p> <p>Two cap reductions (rebasings) have also been scheduled before 2030, by 90 million allowances in 2024 and by 27 million allowances in 2026.</p>	
Operation mechanism in Spain	Facilities that carry out certain types of activities and reach certain amounts of greenhouse gas emissions are included in the Greenhouse Gas Emissions Trading Scheme, and shall have a Greenhouse Gas Emission Permit, granted by the competent Spanish regional body. This permit requires to surrender, within four months following the end of each calendar year, emission allowances in an amount equivalent to the total emissions verified by the facility during the previous year.	
	Emission allowances are allocated to the facility owner by auction and the percentage of emission allowances auctioned is determined by the European Union. The Spanish Secretary of State for Environment acts as auctioneer.	
	Installations in sectors or subsectors exposed to a significant risk of carbon leakage receive allowances of emissions allowances free of charge.	
	<p>The facility owner must be able to guarantee the monitoring and notification of its emissions.</p> <p>Owners of facilities requesting free allocation of emission allowances must have a methodological monitoring plan. This plan will be developed in accordance with the electronic templates provided by the European Commission for this purpose.</p> <p>The monitoring methodological plan will serve as a basis for the collection and presentation of the data necessary for the calculation of the free allocation of emission allowances for the allocation periods 2021-2025 and 2026-2030, and for the collection and presentation of the data required to adjust the free allocation.</p>	

Ownership of the emission allowances	The ownership of both the auctioned and free emission allowances, before allocation, correspond to the Spanish General Administration of the State, which assigns, transfers or eliminates them. Once assigned, companies can trade these allowances within the EU ETS market.
Green house gasses considered	The greenhouse gases considered in the activities included in the Greenhouse Gas Emissions Trading Scheme are carbon dioxide (CO ₂), perfluorocarbon (PFCs), and nitrous oxide (N ₂ O) gases.
Registration	<p>The Union Registry is the instrument through which the publicity and permanent updating of the ownership and control of broadcast allowances is ensured, and the owners of the installations and air operators regulated by the Greenhouse Gas Emissions Trading Scheme will be required to open a holder's account in the Spanish area of the Union Registry.</p> <p>The Union Registry serves to guarantee accurate accounting of all operations relating to the issuance, ownership, transmission, transfer, delivery, deletion, withdrawal, and cancellation of emission allowances, emission reduction units, and certified emission reductions.</p>
Monitoring and reporting process	<p>The owner of the facility must submit to the competent regional body, before February 28 of each year, the verified report on the emissions of the previous year, which will comply with the requirements of the authorization.</p> <p>The owner of the installation that has been granted free allocation of emission allowances must send to the Spanish Climate Change Office, before February 28 of each year, a verified activity level report of the sub-installations into which its installation is divided. For these installations with emission allowances allocated free of charge, the Spanish Climate Change Office will annually determine the average activity level of each sub-installation, based on the activity level report. It will also compare, on an annual basis, the average activity level of each sub-installation with the historical level of activity used to determine the free allocation of the sub-installation in the corresponding allocation period.</p> <p>When the absolute value of the difference between the average activity level of a sub-installation has increased or decreased by more than 15 percent compared to the historical level of activity, the amount of emission allowances allocated to said sub-installation, and therefore to the installation, will be adjusted.</p> <p>In the event that, in the light of the information in the file of each installation and the information submitted annually in the activity level report, circumstances are found which show that an excess of emission allowances have been transferred as free allocation, the owners of the installations must proceed to return the excess or the allowances that must be returned.</p>
Verification	<p>The annual report on emissions data, the report on reference data and the methodological monitoring plan for requesting free allocation, the report on new entrants (to the Greenhouse Gas Emissions Trading Scheme) data, and the activity level report, must be verified in accordance with the European Union regulations.</p> <p>Verifiers carrying out verification activities must be accredited, in accordance with the requirements set out in the European Union regulations.</p>

<p>Trading of emission allowances</p>	<p>The emission allowances shall be transferable. The issuance, ownership, transfer, transmission, delivery and deletion of the allowances to issue shall be subject to registration in the Spanish area of the European Union Registry. Emission allowances and derivatives thereof are considered financial instruments under national and European Union regulations. Emission allowances may be transferred: a) Between natural or legal persons in the European Union. b) Between the above and natural or legal persons in third countries or regional or sub-federal entities of said third countries, subject to mutual recognition of the allowances of the signatory parties by virtue of an international instrument. Emission allowances issued from 1 January 2013 shall be valid indefinitely. Allowances issued from 1 January 2021 shall indicate in which trading period they were issued and shall be valid for emissions from the first year of that period onwards. The owners of the facilities are required to return any allowances they have in excess of their emissions. At the end of each compliance period, they must surrender enough allowances to cover their verified emissions. If they have more allowances than needed, they can sell or bank them for future use, but they must comply with the surrender requirements.</p>
<p>Aviation sector</p>	<p>Air operators must have a monitoring plan that establishes measures to monitor and report their annual emissions data and tonne-kilometres transported. The air operator must submit to the Spanish Ministry of Transport, Mobility and Urban Agenda, before February 28, the verified report on the data of the emissions produced during the previous year, which will be adjusted to what is required in the monitoring plan. If the Spanish Ministry of Transport, Mobility and Urban Agenda issues a favourable report on the verified emissions data report submitted by an air operator, it will notify the Spanish Ministry for the Ecological Transition and the Demographic Challenge so that it can register, before 31 March, the emissions data for the previous year in the verified emissions table enabled for this purpose in the Spanish area of the Union Registry.</p> <p>The total quantity of allowances to be issued for the aviation sector in the European Union as a whole will be determined by the European Commission in accordance with Union regulations.</p> <p>For each trading period, each air operator may request the allocation of free emission allowances, in accordance with the provisions of European Union regulations. This request shall be submitted to the Spanish Ministry for the Ecological Transition and the Demographic Challenge.</p>
<p>Exclusions during the 2021-2025 period</p>	<p>The owners of facilities that are either hospitals or have emitted less than 25,000 tonnes of carbon dioxide equivalent, excluding biomass emissions, for each of the three years of the 2016-2018 period and that, when carrying out combustion activities, have a nominal thermal power of less than 35 MW, may request exclusion from the Emissions Trading Scheme during the 2021-2025 period.</p> <p>Installations that have notified emissions, to the competent authority, of less than 2,500 tonnes of carbon dioxide equivalent in each of the years from 2016 to 2018, without taking into account emissions from biomass, and that have not registered emissions of more than 500,000 tonnes of carbon dioxide equivalent in any year since they have had a Greenhouse Gas Emission Permit in the Spanish area of the Union Registry, are excluded from the Emissions Trading Scheme during the period 2021-2025. The owners of such installations will not have to request exclusion. The excluded installations will maintain the obligations relating to the monitoring, notification and simplified verification of emissions that the competent regional body considers appropriate.</p>

Particularities of the Spanish GHG Emissions Trading Scheme	The Greenhouse Gas Emissions Trading Scheme has been implemented in key sectors such as energy, industry and aviation, with a focus on including more sectors compared to some other countries that may have broader exceptions. In addition Spain has promoted national and regional policies that favour the transition to renewable energies, such as tax incentives for solar or wind energy projects. This helps to complement emissions reduction targets.
	During the early stages of the system, Spain allocated a significant proportion of its emission allowances for free, especially to industrial sectors considered vulnerable to international competition. This translates into less economic pressure on these industries. Some countries have opted for a more aggressive auction approach, meaning that companies must buy a larger share of their allowances, thus incentivising faster emissions reductions.
	Compliance mechanisms that have been put in place include a combination of fines and the ability to buy allowances on the market, although flexibility can be limited compared to other more flexible approaches, for example by allowing companies to use carbon credits or engage in offset projects outside the trading system to meet their obligations.
New Regulations	Spain has approved the draft law that transposes Directive (EU) 2023/959, which amends the previous directive regarding the European Union Emissions Trading System (EU ETS). The new provisions of Directive (EU) 2023/959 introduce a faster reduction of allowances in the EU ETS and the gradual elimination of free allowances for some sectors. The EU ETS is extended to emissions from maritime transport and provides for an increase in funding for the Modernisation Fund and the Innovation Fund, as well as a review of the market stability reserve. In addition, a new independent emissions trading scheme is created for fuels consumed in buildings, road transport and other additional sectors.



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THAILAND

Currently, Thailand applies voluntary program called Thailand Voluntary Emission Reduction Program (“**T-VER**”) for controlling and managing of carbon credit market. No compulsory laws or regulations to control or manage of carbon credit market.

However, there are currently 3 draft laws related to the carbon credit market under the process of public hearing which are:

1. Draft Act on Promoting Greenhouse Gas Reduction and Carbon Credits B.E.
 2. Draft Act on Climate Change B.E. (proposed by Department of Climate Change and Environment, Ministry of Natural Resources and Environment)
 3. Draft Act on Climate Change B.E. (proposed by Ms. Saniwan Buaban, the House Representative)
- (all herein after referred to as “**Drafts**”).

Definitons	Activity data	Not mentioned in the guideline of T-VER.
	Baseline year	Not mentioned in the guideline of T-VER.
Compliance Mechanism	Governing Authorities Thailand Green House Gas Management Organization (Public Organization) (“TGO”).	
	Obligated Entities As Thailand currently applies for voluntary program, thus, there is no spcified obligated entities. However, the definition of obligated entitiies are mentioned in the Drafts.	
	Application for Registration in T-VER T-VER has designated the types and categories of the businesses registering to join the program (e.g. renewal energy business, transportation business, waste management business). Such businesses may submit application and required documents to TGO. The duration for consideration of the application is 60 days.	
	Once the business is registered, the business shall have the duty to prepare for monitoring report regarding amount of Green House Gas (“ GHG ”) emission for further requesting for carbon credit certificate.	
GHG Emission Intensity Trajectory and Targets	The Types of GHG Under the guideline of T-VER, the GHG covers <ul style="list-style-type: none"> • carecarbon dioxide (CO2) • methane (CH4) • nitrous oxide (N2O) • hydrofluorocarbons (HFCs) • perfluorocarbons (PFCs) • sulfur hexafluoride (SF6) • nitrogen trifluoride (NF3) 	
	The Calculation of GHG Emissions Intensity The calculation of GHG emission intensity will be calculated by the business opeartor. Given that the sum amount of GHG emission result known as “Ery”, it must contain no decimal.	

Monitoring and Reporting Process	<p>Submission of Monitoring Report of GHG Emission</p> <p>The business is required to prepare the monitoring report of GHG emission for further requesting for carbon credit certificate. The monitoring report of GHG emission must be submitted together with</p> <ol style="list-style-type: none"> 1) Verification report made by a third party known as Validation and Verification Body (“VVB”) 2) Calculation of the amount of GHG emission in excel form 3) Lists of tools used for recording of GHG emission of the business.
Verification and Assessment of Performance	<p>For T-VER, the verification process applies the standard of ISO 14064-3:2019 for assessing the reduction of the GHG emission from the business. The verification and assessing must be conducted by VVB.</p>
Issuance and Surrender of Carbon Credit Certificate	<p>Issuance of Carbon Credit Certificate</p> <p>Business may request for carbon credit certification by submitting application and related documents to TGO. This certification must be requested within 2 years from the date which status of being business under T-VER is terminated. If the business operator fails to do within this period, they will no longer be able to request for further carbon credit certification for their business.</p>
	<p>Once TGO approves the registration of carbon credit certificate, a carbon credit certificate will be issued within 20 working days from the date of completion of the review.</p> <p>Surrender of Carbon Credit Certificate</p> <p>The surrender of carbon credit certificate can be conducted through Thailand Carbon Credit Registry (“TCCR”) which is electronic platform for carbon credit market.</p>
Trading of Carbon Credit Certificates	<p>Trading of Carbon Credit</p> <p>The seller and buyer of carbon credit must have an account registered with TCCR, and every transaction (i.e. sellign and trading) has to be moitored and approved by the carbon credit registrar appointed by the TCCR.</p>
	<p>Tax Benefit</p> <p>Profits earned by business from the sale of carbon credits in Thailand under T-VER will be exempted from corporate income tax.</p>
Banking of Carbon Credit Certificates	<p>Provisions regarding banking and carbon credit certificate are not mentioned in the guideline of T-VER, including the expiration date of carbon credit certificate.</p>
Compliance with GHG Emission Intensity Targets	<p>TGO will assessed the GHG emission amount of the business under T-VER for the improvement of GHG emission reduction.</p>



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