ICC RECOMMENDATIONS ON CRITICAL DESIGN CHOICES FOR EFFECTIVE CARBON PRICING

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# INTRODUCTIONThe International Chamber of Commerce (ICC) – as the institutional representative of 45 million companies in over 130 countries and as the official UNFCCC Focal Point for Business and Industry – played a central role at the last UN Climate Change Conference COP26 in November 2021 by bringing the voice of the real economy to the negotiations – most importantly on Article 6 of the Paris Agreement on market and non-market cooperative approaches.[[1]](#footnote-2)

The Glasgow Climate Pact[[2]](#footnote-3) marks an important step but is not sufficient to keep the Paris Agreement goal of limiting global warming to 1.5°C within reach. Urgent additional action is needed. Whilst the fundamental rules for trading greenhouse gas (GHG) emissions across borders under Article 6 are now agreed and set the base for certainty and predictability to both market and non-market approaches, significant further technical work has been undertaken by governments over the past months. In the context of COP27, it will be necessary to reach a successful agreement on the key elements which are essential to ensure that the new mechanisms work for the real economy, protect social, environmental and economic integrity within the ambition of the Paris Agreement. It is vital for governments to continue working closely with the business sector in this endeavour to maximise the potential value of the new mechanisms in both social, environmental and economic terms, as well as to ensure that they are implemented successfully and can deliver real and additional benefits for the climate and society.

The recent 2022 IPCC reports[[3]](#footnote-4) underscore that without urgent and concerted global action, a rapidly closing window will be missed to tackle the climate crisis and prevent the most dramatic impacts on the planet and people. COP26 saw an unprecedented mobilisation of the private sector with more companies than ever setting net zero targets and aligning their portfolios with the Paris goals. However, pledges alone are insufficient – determination, political will and, above all, execution from all governments is needed to build on the achievements of Glasgow, drive forward multilevel and multilateral collaboration as well as design clear and credible decarbonisation and financing plans. This will be integral to strengthening confidence for the business community to invest further and faster in a net zero economy and lead to the ambition and action needed for COP27 and beyond.

The current geopolitical situation and the energy crisis emphasise the need for urgent policy responses to safeguard energy security and affordable access to mitigate the effects of the crisis on consumers, business and society at large. The impacts of the crisis have reverberating consequences internationally and raise enormous challenges for global cooperation, the future of the Paris Agreement and advancing goals towards 1.5°C and net-zero by 2050. Nevertheless, climate change remains one of our most pressing global issues. Now, more than ever, it is imperative that all actors work together to take the necessary steps to meet the goals of the Paris Agreement, safeguard and strengthen energy security, access and efficiency, as well as promote investment in energy infrastructures to advance the transition towards a low and net zero emissions energy system. The issue of pricing carbon is all the more relevant in the context of the energy and climate crisis. The disruptive effects on energy and energy-intensive industries and ultimately consumers need to be given due consideration, including in the context of carbon pricing discussions.

Carbon pricing is referred to as “an approach to reducing carbon emissions (also referred to as greenhouse gas, or GHG, emissions) that uses market mechanisms to pass the cost of emitting on to emitters. Its broad goal is to discourage the use of carbon dioxide–emitting fossil fuels in order to protect the environment, address the causes of climate change, and meet national and international climate agreements.”[[4]](#footnote-5)

Carbon pricing is gaining momentum globally (see map below) and – whilst not a complete answer – is viewed by many political leaders and climate economists as the most economically effective way of reducing emissions. In this context, ICC established last year a cross-commission technical working group, under the auspices of the ICC Global Environment & Energy/Taxation Commissions, that explored company experience under the over 60 existing nation carbon pricing regimes and established [10 clear best practice principles](https://iccwbo.org/publication/icc-carbon-pricing-principles/), as further outlined in Section II below, for their design and implementation. The paper, which was launched at COP26 last year, makes the case for how harmonisation of national carbon pricing regimes around a common set of best practices can help drive more ambitious climate action without imposing unnecessary costs on the real economy.

In the second phase of its work this year, ICC has further examined existing domestic carbon pricing systems, focusing more specifically on the practical elements and design features for carbon pricing mechanisms, also taking into account ongoing technical discussions on Article 6 of the Paris Agreement and its implementation[[5]](#footnote-6). At COP26 in November 2021, the rules for implementing Article 6 were finalised and delegates from nearly 200 countries approved a Paris Agreement Article 6 rulebook for international emissions trading, paving the way for more effective cross-border cooperation.

The International Emissions Trading Association has highlighted that the potential benefits of cooperation in achieving the Nationally Determined Contributions (NDCs) using Article 6 are significant for all Parties to the Paris Agreement – with the potential to generate financial flows through Article 6 cooperation amounting from $300 billion per year in 2030 to $1 trillion per year in 2050[[6]](#footnote-7). There is also the opportunity to build efficiencies from the lessons learned from the Clean Development Mechanism (CDM). There has been increasing interest in the use of Article 6 to support cooperative approaches to help countries and sectors decarbonise. Over half of countries signalled in their first or updated NDCs their intention to use international markets to meet their NDCs.

ICC strongly supports the use of market-based approaches and the successful implementation of a new phase of emissions trading under Article 6, enabling decarbonisation and enhanced international cooperation and we recognises its importance for countries to meet their NDCs. Whilst the ICC report focuses on carbon pricing principles and their application in specific jurisdictions and does not specifically explore the role of Article 6 in enabling international cooperation, its relevance is underscored as ICC highlights the need for international cooperation for greater consistency globally as one of its foundational principles.

Over the past months, ICC conducted an extensive assessment of the different design choices in the selected mechanisms to identify what features work well and where there are remaining questions to address and may be areas for improvement. The carbon pricing case studies reviewed [highlighted below] cover different geographical regions and present a useful mix of design features for considerations:

* Canada
* EU ETS
* Indonesia
* New Zealand
* South Africa

In this respect, ICC engaged with various stakeholders, including government and business representatives and academia for a more concrete understanding of the objectives and operational aspects of the systems. The case studies have been subsequently assessed through the lens of the foundational ICC carbon pricing principles in order to determine the outline of key design features for consideration by governments looking to implement carbon pricing mechanisms or seeking to improve existing measures. The approach taken to measure different carbon pricing systems against the ICC principles has proven to be particularly useful and allowed to identify key effective design choices in existing schemes that could recommended further as well as features that need reconsideration and further development to ensure an effective pricing instrument that can give a clear signal for climate change mitigation and adaptation action. The assessment exercise conducted in the second phase of work this year has clearly shown that ICC principles should form an essential part of national and international approaches to climate change for the growing number of countries that decide to develop and implement carbon pricing instruments. The overview of recommended design choices in this paper intends to provide an additional, concrete set of best practices that should be given consideration when designing pricing instruments.

We recognise that important further work on carbon pricing has also been conducted by different international organisations, which has been considered and referenced in the document. The ICC Working Group on Carbon Pricing will continue to exchange and engage with respective partner organisations in this area going forward.[[7]](#footnote-8)[[8]](#footnote-9)[[9]](#footnote-10)

Carbon Pricing Map (2022)[[10]](#footnote-11)

# Weibold Academy: State and trends of carbon pricing (World Bank Report  2022) | Weibold – Tire Recycling & Pyrolysis Consulting

# ICC CARBON PRICING PRINCIPLES

ICC developed a set of 10 key principles [highlighted in the diagram below], which should form an essential part of national and international approaches to climate change for the growing number of countries that decide to use carbon pricing instruments. These principles should also be given consideration when developing and implementing market-based instruments under Article 6 of the Paris Agreement in order to:

* tackle climate change at the quantitative scale and timescale needed, irrespective of location, and at the lowest cost to consumers and society;
* avoid economic and competitive distortions between regions and sectors in order to achieve net emission reductions on a global scale, while preventing any shifting of emissions within sectors and between regions (carbon leakage); and
* give companies immediate, medium and long-term frameworks and provide clarity to support their investment decisions.

The principles are aimed at helping policy-makers to find a balance when designing and implementing a carbon pricing instrument that should assist countries in achieving these main objectives:

* halving GHG emissions by 2030 and achieving net zero emissions by 2050 by both reducing emissions and increasing removals, in line with the latest and leading available science;
* contributing to the achievement of the longstanding USD$100 billion climate finance goal and triple annual investments in low and net zero emissions technologies to $3.5 trillion by 2030, further promoting urgently needed climate finance, in particular for climate change adaptation efforts and supporting vulnerable actors in their efforts in line with the UN Sustainable Development Goals (SDGs) [[SDG 13](https://sdgs.un.org/goals/goal13)], while at the same time;
* keeping energy prices, also through complementary policies, at a level that does not impede consumer access to affordable and clean energy [[SDG 7](https://sdgs.un.org/goals/goal7)], does not impede economic growth and job creation [[SDG 8](https://sdgs.un.org/goals/goal8)] and does not overburden industry; and
* allowing the continued efficient conduct of business, innovation and infrastructure development [[SDG 9](https://sdgs.un.org/goals/goal9)].
* ensuring alignment between climate mitigation and adaptation action and the conservation of biodiversity [[SDG14](https://sdgs.un.org/goals/goal14) and [SDG15](https://sdgs.un.org/goals/goal15)].



# Overview of Carbon Pricing Systems/ Policies

Pricing carbon emissions, through taxes or emission trading schemes (ETS), is considered to be the building block of any climate policy package as it encourages emitters to seek cost-effective abatement options.

Carbon prices can result from different instruments, including taxes, ETSs and crediting mechanisms. The purpose of this outline is to provide a framework by which existing GHG emissions pricing systems/policies can be evaluated in light of the ICC Carbon Pricing Principles. The GHG pricing system in place in a jurisdiction is likely to be composed of one or more (or a combination) of the six key policies outlined below, which should be read and assessed together as pricing often requires a policy mix. A general overview of these policies is provided below, with further details on the core design features and possible modalities available in Annex 1.

Different types of policies and measures explicitly or implicitly put a price on GHG emissions. The World Bank Group States and Trends of Carbon Pricing report (2021)[[11]](#footnote-12) outlines the policies for what is generally known as explicit and implicit carbon pricing. “Explicit carbon pricing policies are enacted by a government mandate and impose a price based on carbon content. They are primarily implemented to encourage cost-effective mitigation as they provide flexibility as to how and when emissions are reduced. They are enacted by a government mandate through either a carbon tax or an ETS.”

Implicit carbon pricing refers to the calculation of the equivalent monetary value per tonne of carbon associated with a given policy instrument which seeks to find a common means to compare the stringency of different mitigation policies. Generally, the policies do not directly apply a cost to emitting carbon and are usually put in place to address other climate objectives and tackle nonprice barriers (e.g. fuel taxes and fossil fuel subsidies).

For purposes of this section, we describe six policies that operate in the context of explicit carbon pricing before elaborating on ICC’s recommended key design features, that remain grounded in the ICC Carbon Pricing Principles:

**Policy 1: Emissions Trading Scheme**

The regulator requires emitters to compensate for their emissions, which they may do by surrendering tradable credits. The two main forms of an ETS are:

* **Cap-and-trade** - where the government determines a limit on emissions (“the cap”) in a particular period and allowances that make up the cap are either auctioned or allocated according to criteria. The market determines the carbon price.
* **Baseline-and-credit** - baselines are set for regulated emitters. Emitters with emissions above their designated baseline need to surrender credits to make up for these emissions. Emitters that have reduced their emissions below their baseline receive credits for these emission reductions, which they can sell to other emitters.

**Policy 2: Crediting Scheme (Project-based offsets)**

The regulator issues tradeable credits as an incentive to emitters who achieve emissions reductions or greenhouse gas removals. The project-based offsets allow emitters to compensate for emissions generated elsewhere through specific projects.

**Policy 3: Levy Scheme (negative externality internalisation) /Carbon tax**

The regulator raises revenue in a manner that increases the costs of greenhouse gas intensive products or services – collected as a tax or as a regulatory charge. The government determines the price and lets market forces determine emissions reductions.

**Policy 4: Support Scheme (positive externality internalisation)**

The regulator provides support, financial or otherwise, to those providing low greenhouse gas intensity products and services to support their viability.

**Policy 5: Carbon Border Adjustment Mechanism**

The regulator uses trade-related measures to impose costs on imported goods with a view to equalizing the GHG emissions costs faced by domestic and foreign producers.

**Policy 6: Linking Mechanism**

The regulator(s) create a mechanism by which pricing mechanisms, normally allowances and offsets, can be used in two or more linked jurisdictions.

The underlying design features for each of these policies are described further in Annex 1.

ICC has conducted an assessment of five selected case studies that reflect individual or combined elements of the policies outlined above. In this regard, ICC engaged with government and business representatives for a concrete understanding of the objectives, operational aspects, differences and commonalities of the policies/mechanisms. Following an assessment exercise against the ICC Carbon Pricing Principles, ICC proposes the recommended design features in Section IV below for consideration by governments in developing their national policies/carbon pricing mechanisms.

1. **Critical Design Features for Effective Carbon Pricing**

Whilst there are a number of different carbon pricing mechanisms in existence, it is generally understood that carbon pricing refers to two principal instruments, carbon taxes and Emission Trading Systems (ETS) also known as cap-and-trade.

Taking into account insights gleaned from the case study review and assessment outlined below as well as building on existing work[[12]](#footnote-13), ICC provides the following recommendations, best practices and consideration with regards to critical design features governments should consider as they look to designing or implementing national carbon pricing mechanisms. The recommendations remain founded on the ICC carbon pricing principles and apply more specifically to the two principal instruments and also provide some general recommendations that would apply to both. Decisions made regarding specific design features of carbon pricing instrument will ultimately depend on the institutional and political context of the jurisdictions implementing the instrument. Depending on their policy priorities and economic environment and other national circumstances. governments may prefer to implement one type over the other, or to combine elements of two or more policy objectives.

The design features outlined do not provide an exhaustive list but highlight a number of key features drawn from existing systems that could be helpful in developing effective carbon pricing mechanisms.

**GENERAL RECOMMENDATIONS:**

* **Cost-effectiveness is an important prerequisite for carbon pricing and greater climate ambition**: Viewed as the most efficient approach to reduce emissions, carbon pricing should incentivise actors to seek the lowest-cost abatement options for their specific circumstances. Carbon pricing policies to accelerate the long-term transition need to be compatible with important short-term objectives such as sustaining economic growth and ensuring accessibility and affordability to different energy resources. Carbon pricing policies therefore need to be demonstrably cost-effective and beneficial to society as a whole and need to be designed in a way to minimise short-term costs to society.
* **Revenue from carbon pricing should be allocated and redistributed in a way that adequately compensates both industrial emitters and poorer households** facing increasing energy costs and financial burden, in particular in the short term. An effective use of revenues from carbon pricing to support companies’ climate mitigation and adaptation efforts and alleviate the burden for most vulnerable communities and small business actors have been proven to be beneficial to reduce economic impacts of carbon pricing. This can help free up resources and facilitate political discussions regarding scaling up longer term policy ambition on climate.
* **Broad coverage/scope of emissions, taking into account country-specific circumstances**: The scope of carbon pricing instruments should be broad enough to include a wide range of emission sources across the economy.[[13]](#footnote-14) A wide scope is essential to ensure that carbon pricing policies minimise competitiveness and carbon leakage risks, particularly for emissions-intensive and trade-exposed sectors. While the most effective results from carbon pricing are achieved if all GHG emissions are priced, governments often face political or technical challenges to implement this from the outset. An incremental implementation of carbon pricing systems, in terms of coverage of different sectors and stakeholders, sources, and in terms of stringency and price level in a transparent and predictable way, has been proven to be more effective and may be preferred in certain circumstances.
* **Effective carbon pricing is designed and carried out transparently**: Transparency in terms of early, clear and regular communication and dialogue at all stages and including all stakeholders in developing and implementing a carbon pricing system is imperative to create investor and societal trust and confidence, as well as encourage a multi-stakeholder and multilateral approach to developing and implementing effective carbon pricing instruments.
* **A robust Monitoring, Reporting and Verification (MRV) framework built on robust and stringent criteria provides the backbone for successful carbon pricing systems**. Carbon pricing systems that effectively monitor and verify emissions and mitigation efforts are critical for public trust and support. Processes to collect and structure emissions data in a manner that is complete, consistent, comparable, accurate and transparent are key to gaining public trust. Additionally, MRV programmes are the basis for understanding the reliability and effectiveness of the carbon pricing policy to meet countries’ climate objectives, and to provide emissions data to verify compliance and assess cost effectiveness. These programmes have also been proven important to regularly review and assess the actual performance of carbon pricing systems as well as evaluate the interactions between carbon pricing and other climate and energy, taxation and trade policies.
* **Price stability and predictability is critical to incentivise both innovation and long-term investment**. A predictable and incrementally increased carbon price promotes a structural transition to a low and net zero emissions economy, while opening up new business opportunities, stimulating innovative business models and most importantly limiting economic impacts. Predictability is essential to support long-term investment decisions as well as reduce long-term uncertainty in national carbon budgets on how much abatement is targeted.

Whilst a lower, but gradually increasing, carbon price can create the right incentives, to serve its purpose, the carbon price set by a tax or ETS must be sufficiently high to send the right market signal and encourage the needed change in behavior.

The International Monetary Fund calculates that the average global carbon price is currently US$2 a ton and needs to rise to US$75/tCO2 by 2030[[14]](#footnote-15) to curb emissions consistent with the goals of the Paris Agreement in order to establish cost-efficient paths to reach net-zero emissions. Latest studies suggest a global carbon price of more than $100/tCO2 would be required as early as the 2020s in order to achieve 1.5°C. However, the contrast between “ideal” carbon prices in energy systems models and real-world carbon prices is still stark and establishing the appropriate level of the carbon price and how it should change over time remains a challenge.[[15]](#footnote-16)

* **Ambitious carbon pricing and a just transition should go hand in hand:** Just transition considerations when developing and implementing carbon pricing schemes are critical to avoid a disproportionate burden on vulnerable groups -- financial burdens arising must remain at a reasonable level. ICC believes that carbon pricing, if designed and implemented effectively can contribute to the achievement of the Paris Agreement goals while also tackling social inequality. Integrating notions of a just and fair transition into policy design is critical. Specifically, governments should use carbon pricing proceeds to address the distributional impacts of the low and net-zero transition. A just transition approach in carbon pricing is even more urgent now that climate change, energy and financial crises have further accentuated the income and inequality gap. Some jurisdictions, including Canada and EU, are already taking concrete steps in this area that could be built upon and can serve as a useful example for other jurisdictions.
* **Incorporating sufficient flexibility in carbon pricing systems can help economies adapt to specific national circumstances and unpredictable economic and political developments as well as advances in technology and climate science**. In a jurisdiction with subnational levels, a carbon pricing backstop system could be considered in the design of the levy that applies for regions/territories that do not implement a system that meets the minimum stringency requirements.

Canada, for example, developed a backstop pricing policy that prescribes a minimum carbon pricing benchmark (in terms of stringency and coverage), but allows subnational governments flexibility to determine the instrument (e.g., carbon tax or ETS). All existing carbon pricing systems need to be designed to be stringent enough to maintain the benchmarked carbon price. Creation of a backstop, such as in the case of Canada, provides clarity for economic actors while also allowing certain flexibility in provincial approaches.

The federal system in Canada is composed of a fee on fossil fuels, known as the fuel charge, and an output-based pricing system for large industrial facilities that applies either fully or partially depending on the circumstances in each province or territory.

Such a performance/output-based pricing system for large emitters can be considered to ensure that they face a carbon price and have the incentive to reduce emissions at a benchmarked carbon price, whilst also providing flexibility to trade emissions and find the most cost-effective way to reduce emissions. If emitters meet the criteria for the performance-based pricing system, they are exempted from the fuel charge, but need to provide compensation for a portion of their emissions.

Emissions reduction obligations can be determined using an output-based standard, which can vary depending on the industrial activity and the competitiveness of the sector. The system helps reduce average costs of climate action and also takes into account carbon leakage and competitiveness risks.

**CARBON TAX/LEVY SYSTEMS**

The primary purpose of a carbon tax is the reduction of carbon emissions, however, governments may have additional or complementary goals, such as generating public revenues, when implementing a carbon tax. As such, depending on country priorities and circumstances, governments may implement different policies, or combine elements of two or more policy objectives.[[16]](#footnote-17) ICC recommends the following features for consideration as governments determine the right policy mix that suits their objectives and requirements.

* **Tax base and tax rate.**

The tax base and tax rate should be determined in the initial design phase of a carbon tax. The tax base defines what is to be taxed and constitutes part of the design choice. The tax base can be based on emissions, usually CO2 although it can be applied more broadly to other GHG emissions, (Direct Emission Approach), or it could be based on the fuels that give rise to CO2 emissions when combusted (Fuel Approach).

The tax rate refers to the rate or price carbon emissions costs will be set at. The level of the tax should be **set a level that is effective in reducing emissions**. A carbon tax should aim to provide a price signal to producers and consumers of carbon intensive products, creating an incentive to reduce emissions and invest in low and net zero emissions technologies. If the level is considered to be too low businesses may prefer to pay the carbon tax than invest in renewable energy technologies.

* **Taxpayer** – It is essential to clearly determine who is liable to pay the tax to the public authorities – the taxpayer must be clearly identified and regulated. In this respect, in the design of a carbon tax, the “*polluter-pays-principle*” should be taken into consideration for large emitters where all activities that emit GHGs above a specified threshold will be liable. It is also important to note that the taxpayer is not necessarily who bears the tax burden, commonly referred to as the tax incidence. Considerations may be given for the carbon tax incentive effect in the design, namely as to whether the taxpayer is able to transfer the cost of the tax down to the supply chain or the consumer.
* **Tax administration authority** is the public body responsible for administering the tax or overseeing its administration and is a key consideration in designing carbon taxation. This is usually the tax authority, but environmental agencies may be considered, particularly for verification and control of emissions data submitted. Considering who administers the tax early in the design process will help provide clarity regarding those involved in the design and implementation of the carbon tax.
* **Phased approach.** Consider a phased approach for the introduction of a carbon tax, with a political commitment to increase rates over time to reach a specific emission reduction target. Carbon tax rates could be coupled with tax free allowances and adjusted over time to facilitate a structural transition to a low, carbon resilient economy in a cost-effective manner.
* **Revenue recycling measures and additional measures to support industry decarbonisation** should be considered to complement the carbon tax regime to:
1. address concerns about the impacts of the carbon tax on the competitiveness of firms operating in international markets (e.g., via tax reductions, tax incentives);
2. help address any potential negative impacts on the welfare of poorer households (in particular on the cost of energy and transport). Targeted reliefs on the fuel charge for farmers, fishermen, small businesses and or specific remote communities for the fuel that they purchase should also be considered.
3. Drive further climate change mitigation and adaption action

Evidence shows that well-designed redistribution of just a portion of tax revenues to the vulnerable consumers and business actors is enough to address the regressive effect, while also maintaining the overall incentive to lower emissions and switch to low emissions technology.

* **Strategies for acceptability.** Governments interested in the implementation of a carbon tax must consider strategies and conditions to achieve acceptability of the measures, which is an essential component for the feasibility of the mechanism. Some examples could include effective communication providing adequate information for all stakeholders, multistakeholder consultations and roundtable discussions, as well as measures to compensate households for the additional cost burden, exemptions and allowances, allocation of a portion of revenues for climate mitigation/environmental objectives, etc. The specific measures needed should be assessed considering the contextual factors of the jurisdiction that implements the tax.
* **Offsets.** In comparison to an ETS, carbon taxes do not establish a carbon market for exchange/purchase of permits. However, governments could consider using mechanisms such as offsets, which allow economic actors to pay for an equivalent amount of emissions to be reduced or absorbed elsewhere. This option could provide tax-liable entities the option to take advantage of the potential for lower abatement costs across or between economic sectors.
* **Benchmark.** Where a carbon tax system cuts across a number of different sectors, it would be useful to consider benchmarking as some industries have very unique operations and sizes.

**EMISSIONS TRADING SYSTEMS**

Under an ETS, the government imposes a limit (cap) on the total emissions in one or more sectors of the economy, and issues a number of tradable allowances not exceeding the level of the cap. Clearly defining the intended role of an emissions trading system is fundamental to allow the initial design of system characteristics to be tailored to its objectives. ICC highlights below some key recommendations for the design and implementation of an ETS.[[17]](#footnote-18)

* **Clearly defined scope and diversity of sources and sectors.** The scope including geographic area, sectors, emissions sources, and GHGs to be regulated, the entities to regulate, should be clearly defined from the onset.A broad coverage makes an ETS system more efficient at providing least cost emissions reductions, as well as helping to provide a more stable price**.** The system should be designed to cover the large majority of emissions including fossil fuels, industrial processes and waste. An emissions unit could represent a determined carbon dioxide equivalent and can cover both emissions and removals. A gradual extension of scope in terms of coverage of different sectors and stakeholders, sources, and in terms of stringency and price level could be beneficial in certain jurisdictions and country circumstances.
* **Determined cap level.** Governments and policymakers should collect robust emissions data to determine the cap level and the long-term trajectory in line with relevant climate change ambitions. Central to the stringency and initial ambition of the instrument is the level of the overall emissions cap. At the outset, the total emissions target must be calibrated as accurately as possible with real emissions levels and should be set on a downward trend that represents a departure from a business as-usual trajectory. The 'cap-and-trade' system sets an absolute limit or 'cap' on the total amount of certain GHG that can be emitted each year by the entities covered by the system, while guaranteeing that total emissions are kept to a pre-defined level. This cap is reduced over time so that total emissions fall. It is important that the emissions cap remains flexible and is reviewed at regular intervals, taking into account macroeconomic developments.
* A **trading system of emissions trading allowances** is also considered useful and effective. Emissions trading allowances can be allocated for free or auctioned and provide some flexibility to the entities covered by the scheme to decide on taking action or buying emissions trading allowances depending on the price. Allowance distribution reflects the overall cap and also considers potential carbon leakage and distribution impacts. A regular control of the supply of allowances and re-evaluation of its effectiveness and need should go in accordance and coordination with the adjustment of the cap to ensure that the ultimate emissions reduction objectives of the ETS are achieved. Instead of regular review and revisions of cap and allowance supply, the design if automatic response measures to alter either the number of allowances circulating in the market (a market reserve) or the price at which they are auctioned (a reserve auction price) may be considered.
* **Unit supply and demand system.** An emissions trading system could also be considered that is based on unit supply and demand. The limit of emissions is defined by the number of tradable emission units in the market, which reduces over time. The government can allocate emission units into the market and ETS market participants trade emission units and/or surrender emission units for compliance. Businesses and households also receive an emission price incentive to choose lower-emission goods, services and activities.
* **Account for risk of carbon leakage**, which can arise in any carbon pricing system in an open economy. The introduction of carbon border adjustment mechanisms is viewed as an option to address carbon leakage as it takes into account the carbon pricing policies that may exist in other countries, applying an adjustment on the import side for countries that already have their own carbon pricing. The objective is that emissions are priced, preferentially in the country of origin and, if not, once they arrive in the destination country.

Thoughtful analysis is essential to assess the reasons and environmental benefits of including specific sectors into the scope of a carbon border adjustment mechanism. Consideration could be given to sectors where there is a high risk of carbon leakage.

* **Alignment with WTO rules**. When designing a carbon border adjustment mechanism, it is imperative to carefully consider international trade rules, in particular the WTO rules, so as not to impede or create barriers to international trade and relations.
* **Use of offsets.** Governments can consider the use of offsets credits, generated from uncovered sources and sectors in the ETS, in order to allow covered entities to meet compliance obligations under the cap at a lower cost. Timeframes would need to be determined for the reporting and compliance period, as well as limits on the use of offsets.
* Establish a clear and robust **monitoring, reporting and verification framework**. Governments must consider the approach for enforcement and government oversight, including the technical, legal, and administrative considerations around the monitoring, reporting, and independent verification of emissions, penalties for noncompliance, and oversight of the market to address risks of fraud and manipulation.

In some instances, participants can follow a “self-assessment” model for emissions monitoring, reporting and verification, although the government can exercise the right to conduct audits as well as prepare compliance reviews.

* **Market stability design features.** Governments should consider measures to address the potential volatility and uncertainty about prices, in the design of an ETS. Options for design will depend on whether they adjust the quantity of allowances or impose constraints on the price. These could take the form of price floors/ceilings, or allowance reserves. Another suggestion could be implementing a market stability reserve aimed at providing price stability for installations covered under the ETS scheme and establishing certainty and confidence in the carbon pricing system. This reserve withholds a certain amount of auction volume based on the total number of allowances in circulation. Design elements for market stability would help support investment in mitigation and new technologies, and essentially the transition to a low-carbon economy.
* **Linking and international cooperation.** Linking whether directly or via the Paris Agreement’s Article 6 provisions allows regulated entities to use allowances or credits issued under an ETS in another jurisdiction’s system as valid currency for compliance. Linking broadens flexibility as to where emission reductions can take place, can also improve market liquidity, help address leakage and competitiveness concerns, and facilitate international cooperation. Ensuring the integrity of the different systems that should be based on robust, internationally agrees transparency criteria, is central for successful linking.
* **Hybrid systems**. Elements of carbon tax design can be incorporated into emissions trading, and vice versa, to create hybrid systems. For example, Indonesia is currently exploring implementing regulations for a hybrid “cap-trade-and-tax” system. Alternatively, carbon taxes can be complemented with an offset system using credits normally destined for an emissions trading system, so that taxed entities can choose to purchase credits in place of part of their tax obligation. These hybrid systems can be effective at smoothing the political path of implementation for carbon pricing, though co-ordination in policy design becomes important.
1. **CASE STUDIES**
2. **CANADA**
3. **INTRODUCTION & FACTSHEET**

Building on the momentum established by the passage and rapid entry into force of the Paris Agreement, in 2016, and various carbon pricing systems already in place at that time, Canada passed the Pan-Canadian Framework on Clean Growth and Climate Change[[18]](#footnote-19) to achieve its emissions reduction targets, grow the economy and build resilience to a changing climate.

In the design of its carbon pricing system, on the four pillars of the Framework, Canada identified the following as key priorities: flexibility; complementarity with existing systems at the provincial level; broad application to emission sources; similar level of carbon price and stringency throughout the country and predictable ratcheting up of costs coupled with transparent reporting.[[19]](#footnote-20)￼

In 2018 the Greenhouse Gas Pollution Pricing Act was passed to ensure carbon pricing applies broadly in Canada and provide minimum criteria for provincial and territorial systems and a federal backstop for operationalisation of carbon pricing as a crucial modality to enable domestic achievement of Canada’s NDC under the Paris Agreement.[[20]](#footnote-21)A federal carbon pricing system consisting of two parts was established: (i) a regulatory charge on fuel (federal fuel charge) as well as (ii) a regulatory trading system for industry – the federal Output-Based Pricing System (OBPS). All provinces and territories are subject to a carbon pricing mechanism, either by an in-province program or by one of two federal programs.[[21]](#footnote-22)

In 2021 Canada provided an updated NDC outlining the target of reducing emissions by 40-45% below 2005 levels by 2030, up from previous 30% and achieving net-zero by 2050.[[22]](#footnote-23) Carbon pricing is again being identified as a key pillar of the Canadian 2030 Emissions Reduction Plan*[[23]](#footnote-24),* which was released by the federal government in March 2022 to reach Canada’s new net zero climate goals.

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| FACTSHEET |
| Year of Implementation | 2019 |
| Regulator | Federal Government, provinces and territories. |
| Policy mechanism(s) | Federal pricing system consisting of:1. a fuel charge/levy on fossil fuels; and
2. ii) a performance-based pricing system for large emitters – the federal Output-Based Pricing System (OBPS).

Provinces and territories have flexibility to develop their own carbon pricing systems as long as they meet the so called ”Federal Carbon Pollution Pricing Benchmark” - a set of minimum national stringency criteria[[24]](#footnote-25). The federal carbon pricing system applies in provinces/territories that request it or that do not implement a system that meets the minimum stringency requirements. A Federal carbon pricing backstop provides a backstop to provincial approaches that applies in any province or territory that does not have a carbon pricing system that meets the benchmark criteria.[[25]](#footnote-26)  |
| Targets | Achieving GHG emission reduction of40-45% below 2005 levels by 2030 and net–zero by 2050. |
| GHGs covered | Carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), sulfur hexafluoride (SF₆), perfluorochemicals (PFCs), hydrofluorocarbons (HFCs) |
| Sectors covered | Oil and gas production; mineral processing; chemicals; pharmaceuticals; iron and steel; mining and ore processing; lime and nitrogen fertilisers; food processing; pulp and paper; automotive; electricity generation; cement. |
| Pricing | Following a progressive ratcheting up in price since 2018, 2021 price was CA$40/tCO2e, escalating to $50/t in 2022, and following the objective of increasing up to $170/t in 2030. |
| Use of offsets | Entities can use offset credits from the Federal GHG Offset System, launched in July 2022 and recognised units from approved provincial offset systems (Alberta and British Columbia, since March 2021). Any offsets criteria need to meet certain robustness criteria. |
| Revenue allocation | The federal carbon price is revenue neutral, that means that the federal government does not keep any direct revenues from carbon pricing schemes in place. The Government is also committed to helping households make investments to increase energy efficiency and further reduce emissions. The return of revenues follows a number of different pathways (see section below). |
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**2. PRINCIPLES TEST & ASSESSMENT: USEFUL FEATURES / BEST PRACTICES**

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| ICC Carbon Pricing Principle | Application | Comments |
| 1. Focus on GHG emissions reduction as prime target, including the prevention of GHG leakage
 | Alignment of carbon pricing systems with key goals to significantly reduce emissions levels by 2030 and achieve net-zero by 2050 in line with the domestic NDC provides long-term prioritization and certainty for investors, innovators, and operators.Encompassing a wide range of fuel and GHG types ensures the framework adequately captures the full scale of potentially harmful practices. | The system has been effective in terms of providing a price signal and mitigating carbon leakages and adverse competitiveness impact risks. Inclusion of a progressive ratcheting up the carbon price allows impacted organizations to adapt over time. |
| 1. Create a reliable, predictable overall framework
 | Finding a basis in both federal and provincial law, the national approach to carbon pricing in Canada aims to provide a harmonised overall framework that consists of two parts with flexibility provided for nuanced differences at the provincial level.Differences between carbon pricing systems across provinces and territories increase may increase over time, with the risk to create additional complexities and higher costs for pan-Canadian climate policy than necessary. Similarly, differences in complementary policies—and differences in interactions between carbon pricing and other policies—can increase overall costs.  | A continued focus on strong, supportive, predictable and responsive policies intended to complement and support carbon pricing efforts and grow supply and demand for low- and zero-carbon technologies will be instrumental to drive actions in Canada.Regular review and assessment of actual performances of systems in place as well as evaluations of interactions between carbon pricing and other policies is well advised.  |
| 1. Promote consistency between climate, energy, trade and taxation policy
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| 1. Create a clear and robust transparency framework
 | The Pan-Canadian Approach to Pricing Carbon Pollution, which established Canada’s approach to carbon pricing for the 2018-2022 period, set out the principles on which the pan-Canadian approach to pricing carbon pollution is based, and established minimum national stringency criteria that all systems must meet to ensure they are comparable and effective.In 2021, the Government published an update to the federal carbon pricing benchmark with more rigorous criteria that aim to improve further stringency and effectiveness of domestic carbon pricing systems. It builds on key principles identified by the 2016 federal-provincial-territorial Working Group on Carbon Pricing Mechanisms, including: “Reporting on carbon pricing policies should be consistent, regular, transparent and verifiable”.[[26]](#footnote-27)It is important to highlight that the updated federal benchmark includes a mandate on reporting. Provinces and territories must publish regular, transparent reports and/or information on the key features, outcomes, and impacts of their carbon pricing systems, as well as on compliance information and carbon market data where publication could enhance accountability, and carbon market function and oversight. | More rigorous reporting and accounting criteria is a critical step forward in improving the governance of the systems that were considered often opaque, with lack of key data needed to review systems effectiveness. Better data going forward is important to enable ongoing assessment and improvement in these policies over time.  |
| 1. Maintain accessibility to and affordability of low-carbon and clean energy sources
 | Canada returns carbon pricing revenues to households in the form of a tax rebate or through investments, offsetting about 80 percent of the burden and providing additional support to vulnerable communities and indigenous peoples. | ICC strongly believes that regardless of the carbon pricing instrument that is chosen, financial burdens arising from it must remain at a reasonable level, in accordance with the UN SDGs and the principle of just transition.Carbon pricing can lead to higher energy prices and can become a significant burden for households and consumers – particularly for lower-income families who spend a greater proportion of their income on energy. Under the current plan, the burden for the average Canadian household in 2030 will be about 2 percent of consumption[[27]](#footnote-28). Canada’s efforts are especially important in the current socio-economic situation. |
| 1. Promote international linking of carbon pricing instruments
 | Canada sees a strong potential in linking federal systems and provincial systems, as some of Canadian jurisdictions are very small and that could help provide greater flexibility and cost efficiency. From an international point of view, the federal government also believes that larger carbon markets could be more efficient and recognises the crucial role of Article 6 of the Paris Agreement and linking with other international markets in that regard.  | For example, at the subnational level, the province of Quebec has linked its economy-wide emissions trading programme with the state of California, creating North America’s largest carbon market. Canada has noted that further domestic and international linking of carbon pricing systems would provide considerable benefits in the longer term, lowering costs of compliance while mitigating carbon leakage.Further improving and strengthening the accounting and reporting framework over time and aligning it with the reporting, accounting and transparency provisions agreed under the UNFCCC and Paris Agreement can optimise chances for international alignment. |
| 1. Recognize that there is no “one-size-fits-all” single instrument
 | Canada has recognised the existence of different carbon pricing systems already in place and developed an approach to build on and leverage these systems while also taking into account special circumstances and needs of certain jurisdictions, economic sectors and segments of society. Any province or territory can design its own pricing system tailored to local needs or can choose the federal pricing system.  | Creation of a backstop in a federal context provides clarity for economic actors operating across multiple jurisdictions of the long-term policy priority while providing flexibility for provincial approaches.However, this flexible approach also comes with certain challenges, such as providing certainty and consistency over time, when there is a need to reassess systems, as well as increased complexity and administration for entities operating across several domestic systems.Some weaknesses in the Pan-Canadian carbon pricing framework also remain. These include the fact that provincial and territorial carbon pricing systems differ widely in terms of emission coverage, effective carbon price and cost burden on industry. |
| 1. Couple carbon pricing with investment in climate change mitigation and adaptation
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| 1. Ensure international cooperation for greater consistency globally
 | As noted above, Canada recognises the crucial role of Article 6 of the Paris Agreement and linking with other international markets in that regard | The Canadian government’s efforts to promote harmonized international carbon prices and to explore potential for a border carbon adjustment can help mitigate the risks of carbon leakage while maintaining a strong price signal domestically. The Group of 7 leaders, including Canada endorsed in June 2022 the goals of an open and cooperative international Climate Club - aimed at accelerating decarbonization while also addressing carbon leakage concerns.ICC strongly supports the idea of aligning climate ambitions amongst the G7 but encourages the G7 to closely collaborate with the countries of the G20, major emerging economies and beyond as well as the private sector on further exploration of “climate club” concept and to develop a credible operationalization plan. |
| 1. Develop mechanisms through inclusive, transparent consultation with business and other key stakeholders
 | Canada established a an interdisciplinary multistakeholder advisory committee to review and influence policy approaches supports an inclusive approach that can be responsive to localized or industry-specific challenges. In 2021, the Government of Canada announced its launch of an initial exploratory phase of consultations on border carbon adjustments, including discussions with the provinces and territories, industry associations representing those sectors most impacted, as well as labour and environmental organizations and academics with expertise on BCAs.Consultations with Indigenous Peoples were also an essential component of the Pan-Canadian Framework established in  | ICC recognises the value and necessity of a multistakeholder and multilateral approach to developing and implementing effective carbon pricing instruments. Continued consultation and dialogue with business and key stakeholders, in particular local and indigenous people communities as well as maximum transparency and clear communication is critical to create investor and societal trust and confidence. |

1. **EU EMISSIONS TRADING SYSTEM**
2. **INTRODUCTION & FACTSHEET**

The European Union Emissions Trading System (EU ETS) is a cornerstone and key policy instrument of the EU's strategy for reducing GHG emissions cost-effectively since 2005. The EU ETS is based on the principle of 'cap-and-trade' and covers around 40% of the EU’s emissions, from the power sector, manufacturing industry and aviation within the European Economic Area (EU member states plus Iceland, Liechtenstein, and Norway) and since its introduction EU emissions have been reduced by 41% in these sectors. It is the world’s first major carbon market and now second-largest ETS in force. Introduced in 2005, the EU ETS has gone through several reforms, and it is now in its fourth trading phase.

The latest reform of the ETS was proposed in July of 2021 as a part the “Fit for 55” package adopted by the European Commission – a set of proposals to revise and update EU climate, energy and transport legislation, which will contribute to the EU’s climate goals of reducing net GHG emissions by at least 55% by 2030 and reaching net zero emissions by 2050.[[28]](#footnote-29) The latest reform proposed includes major changes to the system, including a more ambitious EU ETS reduction target for 2030 as of 61% compared to 2005; a faster reduction of the cap with fewer allowances on the market; inclusion and expansion of ETS to new sectors (shipping, buildings and road transport) as well as gradual phasing-out of free emission allowances for certain sectors (in parallel with the introduction of the carbon boarder adjustment mechanism).[[29]](#footnote-30)

The proposal has since then gone through the EU’s ordinary legislative procedure. In June 2022, the European Parliament and Council adopted their respective positions on the proposed EU ETS directive introducing several amendments[[30]](#footnote-31). Whilst the Parliament is in favour of more ambitious goals for shipping decarbonisation, it seems Member States have not deviated much from the Commission’s proposal. The European Parliament, Council and Commission have entered "trilogue" negotiations, and it is likely a compromise will be found somewhere in between the different positions.

As of January 2020, the EU ETS became linked to the Swiss ETS, the first linking of this kind for both parties. The link allows covered entities in both systems to use allowances from either ETS for compliance. Conversely, a link to the EU ETS was not introduced by the United Kingdom that after withdrawing officially from the EU on 31 January 2020 also stopped participating in the EU ETS.

The EU ETS in its development over the years shows some significant achievements. One of its achievements is certainly given by the size of its market as well as its scope. As the world's major carbon market and cross boarder cap-and-trade system, it includes 30 countries (the 27 EU Member States plus Iceland, Liechtenstein, Norway) and covers more than 11,000 installations.

The large scope of the EU ETS market, in particular, increases competition among the economic actors involved and broadens the possibility to find buyers for the available allowances, by also encouraging participating entities to develop new technologies that can help increase emissions reductions. The EU ETS has also a symbolic value, which goes beyond purely economic considerations and demonstrates the EU strong commitment to tackle climate change at the quantitative scale and pace needed.

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| FACTSHEET |
| Years of Implementation | Phase 1: 2005-07; Phase 2: 2008-12; Phase 3: 2013-20; Phase 4: 2021-30 |
| Regulator | EU institutions following the EU legislative process. In 2012, EU ETS operations were centralised into a single EU registry operated by the European Commission. The Union Registry serves to guarantee accurate accounting for all allowances issued. |
| Policy mechanism(s) | The EU chose a “cap-and-trade” structure as the best means of meeting the GHG emissions reduction target at least overall cost to participants and the economy as a whole. The cap-and-trade system allows companies in the system to determine what the least-cost option is for them to meet a common fixed cap.  |
| Jurisdictions | 27 EU members states and three European Economic Area-European Free Trade Association (EEA-EFTA) states: Norway, Iceland and Liechtenstein. |
| Targets | Current emissions reduction target for EU ETS of 43% by 2030, compared to 2005 emissions. In July 2021, the European Commission proposed to increase the EU ETS target to -61% by 2030, as the market system’s contribution to the EU’s overall climate target of -55% by 2030. |
| GHGs covered | CO2, N2O, PFCs |
| Sectors covered | Power and heat generation; industrial processes, including the oil refineries, steel works and production of iron, aluminium, metals, cement, lime, glass, ceramics, pulp, paper, cardboard, acids and bulk organic chemicals, aviation. As a part of the “Fit for 55” package, the European Commission proposed to include maritime shipping in the EU ETS as well as to establish a separate, parallel ETS for road transport and buildings. |
| Pricing | The carbon price is set by the market through trading and based on a wide range of factors. |
| Revenue allocation | Under the current EU Emissions Trading System, most revenues from the auctioning of emission allowances are transferred to national budgets. At least 50% of auctioning revenues should be used by Member States for climate and energy related purposes and up to 25% can be used by Member States for indirect costs compensation. The EC proposed ETS reform includes the creation of the Social Climate Fund to address any social impacts that arise from this new system. Revenues from the ETS should also support EU stakeholders in the low-carbon investment challenge through the Innovation Fund and Modernisation Fund.[[31]](#footnote-32) The European Commission also proposes to oblige Member States to spend all of their ETS revenues on climate action. |

**2. PRINCIPLES TEST & ASSESSMENT: USEFUL FEATURES / BEST PRACTICES**

The purpose of this exercise is to apply the 10 carbon pricing principles released by ICC in November 2022 to the current EU ETS in all its components including CBAM, bearing in mind that many possible changes are currently under discussion in the trialogue process on the several pieces of the “Fit for 55” package, including the revision of the EU ETS Directive and the CBAM Regulation.

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| ICC Carbon Pricing Principle | EU ETS application | Comments |
| 1. Focus on GHG emissions reduction as prime target, including the prevention of GHG leakage
 | The EU ETS, “cap and trade” scheme launched in 2005, covers GHG emissions. It aims to assist the EU in reaching its medium and long-term climate targets (by 2030 to get to at least 55% below 1990 GHG levels and by 2050 achieve net zero emissions[[32]](#footnote-33)) by “promoting reductions of emissions in a cost-effective and economically efficient manner”[[33]](#footnote-34).The EU ETS works on the principle of 'cap-and-trade'. It sets an absolute limit or 'cap' on the total amount of certain GHG that can be emitted each year by the entities covered by the system. This cap is reduced over time so that total emissions fall. The main features of the EU ETS are the emission cap (a ceiling on the maximum amount) and the trading of EU Allowances (EUAs). The cap represents the maximum absolute quantity of GHG emissions that may be emitted by entities covered by the system and guarantees that total emissions are kept to a pre-defined level. In the current phase 4 (2021-2030), the cap for both stationary installations and aviation is set to decrease annually by the linear reduction factor of 2.2%.[[34]](#footnote-35)EUAs are allocated for free, or they are auctioned. The trading system provides some flexibility to the entities covered by the scheme as they can decide on taking action or buying EUAs depending on the EUA price. Installations that achieve reduction costs lower than the price are encouraged to take action, while emitters with high mitigation costs can buy EUAs complying with the GHG policy more cheaply.In July 2021, as part as part of the "Fit for 55" package, the Commission adopted its proposal for a regulation establishing a Carbon Border Adjustment Mechanism – a novel trade measure which seeks to address the risk of carbon leakage by imposing a levy on imports of certain GHG emissions intensive goods from outside the EU. The mechanisms should also encourage countries outside the EU to establish effective carbon pricing policies. Based on the Commission proposal, the CBAM will apply to cement, fertilisers, iron and steel, aluminium, and electricity, and is expected to enter into force as early as 2023 in a transitional form, and to fully apply from 2026. | Both the Council and the Parliament respectively agreed on the Commission CBAM proposal in March and June 2022.The Parliament’s position is largely in line with the Commission’s proposal, except for sectoral coverage (suggests to also include organic chemicals, plastics, hydrogen and ammonia, and to extend CBAM to indirect emissions); faster phase out of free allowances by 2032 (three years earlier); inclusion of export rebate as well as use of CBAM proceeds to support decarbonisation efforts in Least Developed Countries.ICC believes that addressing carbon leakage concerns is important until consistent carbon pricing mechanisms are applied globally. Any such approaches to prevent carbon leakage should be considered and designed carefully and proportionately. They should be compatible with WTO rules and non-discrimination principles. The engagement and close consultation with G7 and G20 countries, governments outside these groups as well as business is imperative to avoid any unnecessary complexities and distortions.  |
| 1. Create a reliable, predictable overall framework
 | Addressing climate change requires stable and predictable policies which incentivise investment towards a low and net zero economy.The EU ETS and, more generally, all the pillars of the EU Climate Policy rely on a legal, predictable, and accessible basis. | There are many uncertainties regarding the final content and the agenda of implementation of the “Fit for 55” package due to the rising cost of gas and electricity for households and businesses. |
| 1. Promote consistency between climate, energy, trade and taxation policy
 | The objective of coherence is at the origin of the genesis of the ‘Fit for 55’ package and the new EU Green Deal. | The CBAM initiative has been designed to avoid discrimination against third countries’ producers, notably with a price alignment between ETS and CBAM certificates and the possibility to take into account carbon pricing mechanisms in the country of origin. Positive synergies and consistency between European energy, climate, trade and taxation policies are still to be determined/established in the course of the legislative process. |
| 1. Create a clear and robust transparency framework
 | Despite achievements of the EU ETS, several shortcomings, which tend to weaken its effectiveness, have emerged in the implementation of the EU ETS over time. The key challenges identified that have hindered the functioning of the system, in particular in the first two phases are (i) price volatility, (ii) governance problems, and (iii) monitoring problems.In 2019, the EC also implemented the Market Stability Reserve (MSR) aimed at providing price stability for installations covered under the EU ETS scheme and establishing certainty and confidence in the carbon pricing system This withholds a certain amount of auction volume based on the Total Number of Allowances in Circulation. It was introduced at first to remove an anormal surplus that accumulated in ETS in the phase 2 but it is also targeted to remove influence of other policies interacting on the ETS perimeter. | ICC Principle 4 clearly states that a complete, consistent, accurate and transparent monitoring, reporting and verification system is essential for creating trust in emissions trading and carbon pricing, from society and investors.Further assessment will be required in order to illustrate the degree of robustness of the ETS compared to another carbon pricing instrument. Setting up reliable impact assessments regarding the interactions of all the EU Fit for 55 elements/policies is vital as well as regular and synchronized reviews of all climate and energy legislation could be a way to test the efficiency of the global package and adjust it if necessary.The European Securities and Markets Authority, the EU’s securities markets regulator, published earlier this year its Final Report on the European Union Carbon Market, putting forward a number of key policy recommendations to improve market transparency and monitoring.[[35]](#footnote-36)  |
| 1. Maintain accessibility to and affordability of low-carbon and clean energy sources
 | In its proposal, the Commission included the creation of a Social Climate Fund, which would use 25 % of the revenues from the new ETS for road transport and buildings. This would alleviate the social impacts of passing on the carbon costs to households, micro-enterprises and transport users. Furthermore, the Commission encourages that Member States use part of the revenues for financial support to low-income households as well as climate-vulnerable countries.The Commission just recently approved, under EU State aid rules, a German scheme to partially compensate energy-intensive companies for higher electricity prices resulting from indirect emission costs under the EU ETS.  | Several EU members states as well as NGOs groups and other organisations have expressed concerns over the past months about negative economic and social impacts, especially in lower-income Member States, and particularly about the proposed separate emissions trading system for road transport and building that would lead to a further increase in energy prices.Addressing these concerns and a continued close engagement and dialogue with all civil society group, including business, is imperative.  |
| 1. Promote international linking of carbon pricing instruments
 | EU ETS Directive allows for linking, provided both systems are compatible, mandatory and have an absolute emission cap. Agreement between the EU and the Swiss Carbon markets was signed in 2017 and entered into force in 2020. In 2014, the EU also cooperated with China on designing and implementing China’s carbon market and supporting a roll-out of seven regional pilot schemes across the country. This cooperation and sharing of knowledge led to the successful launch of China ETS in 2021. Cooperation on climate change between EU and Canada were also included in in the EU-Canada Trade Agreement (CETA). It also included further technical exchanges to understand considerations and impacts of the EU proposed CBAM.The EU CBAM proposal can be seen as the external side of the EU ETS. It takes into account the carbon pricing policies that may exist in other countries, applying an adjustment on the import side for countries that already have their own carbon pricing. The objective is that emissions are priced, preferentially in the country of origin and, if not, once they arrive in the EU. The methodology of assessing emissions is being designed in the simplest way as possible, so that it can be applied by partners who have different approaches or no carbon pricing at all. Being more elaborate could be more effective on reducing emissions, but the preference is currently directed towards a manageable system. Default values exist as a backup, in case there is no way of calculating the emissions embedded in an imported good. | All these efforts are critically important, and ICC also welcome the EU and G7 countries support for a “Climate Club”. ICC strongly supports the idea of better aligning climate ambitions amongst the G7 but encourages the G7 to closely collaborate with the countries of the G20, major emerging economies and beyond as well as the private sector on further exploration of “climate club” concept. We strongly support multilateral approaches and encourage the EU to further explore linking and cooperation opportunities, where possible, that have the potential deliver tangible progress towards a functioning cross-border carbon market capable.Further exploration on how the EU can use the new rules under Article 6 of the Paris Agreement to complement its own NDCs through international emissions trading would also be beneficial.  |
| 1. Recognize that there is no “one-size-fits-all” single instrument
 | The trading system provides some flexibility to the entities covered by the scheme as they can decide on taking action or buying EUAs depending on the EUA price. Installations that achieve reduction costs lower than the price are encouraged to take action, while emitters with high mitigation costs can buy EUAs complying with the GHG policy more cheaply. Some small emitters are exempt from the EU ETS. Installations are considered small emitters if they emit less than 25 ktCO2e annually and, if they are combustion installations, have a thermal rated input below 35MW. Hospitals may also opt-out if they are subject to equivalent measures.  | The proposed EU Social Climate Fund of EUR 72 billion over eight years (2025-2032) can be an important step, if designed and implemented effectively, in providing support, through direct compensation and structural adjustment assistance, to those most vulnerable to price increases or who face access challenges to alternative and renewable energy sources in rural and remote areas.However, addressing social implications and negative impacts on smaller businesses successfully requires integrated policy approaches and a full set of measures, consistent with the other ICC principle.  |
| 1. Couple carbon pricing with investment in climate change mitigation and adaptation
 | EU ETS directives states that at least 50% of auctioning revenues or the equivalent in financial value of these revenues should be used by Member States for climate and energy related purposes. To address any social impacts that arise from this new system, the Commission proposes to introduce the Social Climate Fund. The Fund should provide funding to Member States to support measures and investments in increased energy efficiency of buildings, decarbonisation of heating and cooling of buildings, including the integration of energy from renewable sources, and granting improved access to zero- and low-emission mobility and transport. These measures and investments need to principally benefit vulnerable households, micro-enterprises or transport users.  | A continued significant government expenditure will be required alongside corporate investment to ensure that climate targets are met.While we recognise the imperative for governments to make short-term interventions to safeguard energy security and affordability, business is clear that effective climate action must be mainstreamed in the long-term economic response to both the Ukraine crisis and the lasting effects of the Covid-19 pandemic.  |
| 1. Ensure international cooperation for greater consistency globally
 | Position of the EU in various fora: OECD, G20, G7, WTO and bilateral cooperation with the US on carbon pricing (Trade and technology Council and ad hoc working group on sustainable steel and aluminum) | This commitment in favor of international cooperation is perceived as not incompatible with the adoption of unilateral measures but any such measure should be developed and implemented carefully.  |
| 1. Develop mechanisms through inclusive, transparent consultation with business and other key stakeholders
 | EU has engaged with business and different stakeholder through regular consultations, public forums, information sharing sessions on different aspects of the EU ETS and its proposed reform. | Continued consultation and dialogue with business and other stakeholders are essential as the EU ETS develops further.  |

**C. INDONESIA**

1. **INTRODUCTION & FACTSHEET**

Indonesia is the world’s eight-biggest GHG emitter and – with its more than 17,000 islands and most of its population living in the low-lying coastal area – the country is highly vulnerable to climate change impacts, including extreme weather events such as floods and droughts, and long-term changes from sea level rise, shifts in rainfall patterns and increasing temperature.

In 2021, Indonesia set its goal for achieving net zero emissions by 2060 and communicated its revised national climate targets or NDC, confirming its existing 2030 targets to an unconditional 29% reduction in emissions below a business-as-usual (BAU) scenario by its own efforts and a conditional 41% reduction in emissions below the same BAU, that could be achieved with the necessary help of international funding and transfer of technology.[[36]](#footnote-37) To meet these goals, the country also passed a Presidential Regulation on the Economic Value of Carbon for NDC (Carbon Economic Value Bill)[[37]](#footnote-38) – establishing the legal framework for domestic carbon pricing, including a carbon tax and ETS.

Indonesia has been considering carbon pricing for several years. In 2017, Indonesia adopted the “Government Regulation No. 46/2017 on Environmental Economic Instruments” providing a first basis for ETS implementation, setting a mandate for an emission and/or waste permit trading system to be implemented by 2024, within seven years from its passage. A report commissioned by the World Bank’s Partnership for Market Readiness examined four market-based mechanisms that the country might choose to develop: (i) an ETS for the power and industrial sectors; (ii) an energy efficiency certificate scheme for industry; (iii) a cap-trade-and-tax system; (v)i and a carbon offset mechanism.

A voluntary and intensity-based pilot ETS program for the power sector started between April and August 2021 and is set to continue with new phases over the coming years before transitioning to a mandatory ETS. A carbon tax was also expected to be piloted in April 2022, with the first one on coal-fired power plants as part of an updated tax framework Law No. 7/2021 “Concerning Harmonization of Tax Regulations”. However, the Government of Indonesia postponed the carbon tax implementation twice due to the emergence of global risks (i.e., the increasing of global food and energy prices). Currently, there is no definite target implementation date for the carbon tax scheme although there is expectation to have the carbon tax scheme operational by the time the G20 summit takes place in November 2022 in Indonesia. By 2025, the government plans to also establish an ETS and expand the carbon tax to other sectors.

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| FACTSHEET |
| Years of Implementation | 2022-2024: expected application of carbon tax mechanism in April/July 2022 (further postponed)2025: full implementation of carbon trading as well as the expansion of the carbon taxation to sector in stages. A voluntary and intensity-based pilot ETS program for the power sector started in 2021 and it set to continue over the coming years.  |
| Regulator | Indonesian government |
| Policy mechanism(s) | Under the 2021 Regulation, the government foresees the use of the following mechanisms: Carbon trading; economic incentives; carbon levies; and any other mechanism based on scientific and technological developments. The implementing regulations for a potential hybrid “cap-trade-and-tax” system are currently being developed and are expected to be released in the coming months. Once the mandatory ETS becomes effective, facilities that fail to meet their obligations under the system might be subject to the tax, the rate of which will be linked to the price of the domestic carbon market.  |
| Targets | Indonesia has set an unconditional target to reduce emissions by 29% and a conditional target to reduce emissions by 41% with Business as Usual (BaU) by 2030. |
| GHGs covered | CO2e; products and services: tax is payable on purchase of goods containing carbon and activities that produce GHG emissions. |
| Sectors covered | ETS and carbon tax initially for power generating sector and from 2025 onwards expansion to other sectors in stages, taking into account readiness of the relevant sector, economic conditions, readiness of participants, impact(s), and/or scale. |
| Pricing | By Law, the carbon tax rate is set to be higher than or at market price, with a minimum rate of Indonesian Rupiah (IDR) 30 (US$ 0.002) per kilogram of CO2 equivalent (CO2e), or US$ 2.13 per ton of CO2e emission above the stipulated cap (cap and tax). CO2e is a representation of greenhouse gas emissions that includes CO2, N2O and CH4 compounds. |
| Use of offsets | TBA |
| Revenue allocation | Revenues from the carbon tax would be allocated for climate change mitigation activities. |

**2. PRINCIPLES TEST & ASSESSMENT: USEFUL FEATURES / BEST PRACTICES**

In general, as Indonesia is at the initial stage of the system, it might be too early to provide an accurate and informed assessment of what works wells and what does not. However, an initial assessment against the ICC principles is provided below.

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| ICC Carbon Pricing Principle | Application | Comments |
| 1. Focus on GHG emissions reduction as prime target, including the prevention of GHG leakage
 | With the adopted regulations, Indonesia writes into law the imperative to take concrete climate change mitigation and adaptation action. In particular, it focuses on the notion of carbon economic value and establishes related pricing, trading and other economic concepts to incentivise market participants to reduce their carbon emissions.While the myriad details to implement the ETS and carbon tax systems still need to be defined, this represents an important step and means that Indonesia is the second country in Southeast Asia (after Singapore) to regulate its carbon market.The government intends that the introduced measures will incentivise consumers to decrease their carbon footprint by switching to more sustainable practices and utilise low-emission fuels. The carbon tax may also help generate more investment in renewable energy sources, which would support the government’s plan to achieve a renewable energy account of at least 23% of the country’s total energy mix by 2025. | Generally speaking, the level of the tax is considered too low to be effective in reducing emissions, which is also noted in the business experience section below where businesses would rather pay the carbon tax than invest in renewable energy technologies. The law states that taxpayers who participate in emissions trading, the offset of their carbon emissions, and/or other mechanisms according to the laws and regulations can be given:* Carbon tax reductions
* Other treatment(s) for the fulfilment of carbon tax obligations

The current carbon policy in Indonesia focuses on the land-based carbon while the carbon stored in coastal and marine ecosystems is excluded from the system. It’s recommended to take the “blue carbon” into consideration, especially Indonesia's seagrasses and mangroves conservatively account for 3.4 Pg C, roughly 17 % of the world's blue carbon reservoir.[[38]](#footnote-39) [[39]](#footnote-40) |
| 1. Create a reliable, predictable overall framework
 |  | Furthermore, there are no indications given as to how the level of tax will be increased in the future. It would be helpful for industry to have an indication as to how taxes will increase in the future in order to make relevant investing decisions. Some reflection may also need to be given to consider the overall effect and impact of the policy in achieving emissions reduction. |
| 1. Promote consistency between climate, energy, trade and taxation policy
 | The Indonesia carbon tax is part of a larger emissions reduction framework alongside sectoral technical policies (i.e., phasing out coal, developments of new and renewable energy, increasing biodiversity).  | There appears to be a certain level of complexity with respect to the relation between the carbon tax and trade and there is lack of clarity regarding the interaction between the two. It is also considered that the carbon pricing system lacks clarity on the roles that different stakeholders play. More precise and detailed definitions should be given related to the role of government. |
| 1. Create a clear and robust transparency framework
 |  | It is considered that the information provided lacks precision and leaves flexibility for the government to waive carbon taxes as desired. Indonesia also needs to reconsider their monitoring and evaluation system to avoid economic risk and political unrest in response to the launch of the carbon tax. |
| 1. Maintain accessibility to and affordability of low-carbon and clean energy sources
 |   | Burning one litre of gasoline produces approximately 2.3 kg of carbon, so if this is fully taxed, it would add 69 IDR plus 10% VAT to the price at the pump, i.e., 76 IDR/litre. The current gasoline price is 16,630 IDR/litre, so if passed on the price, the carbon tax would raise gasoline prices for the consumer by 0.46%. In this case, it is not expected that price effect would have a large impact on consumer behaviour |
| 1. Promote international linking of carbon pricing instruments
 |  | It is noted that UU7 (Par 5, pg 112) includes, in the scope of purchasing, imported goods, which may indicate that Indonesia may consider introducing Carbon Border Adjustment Measures in the future. ICC reiterates the importance of considering these principles for any further considerations with respect to these measures. |
| 1. Recognize that there is no “one-size-fits-all” single instrument
 |  |  |
| 1. Couple carbon pricing with investment in climate change mitigation and adaptation
 | The law (UU No. 7) states that revenue from the carbon tax will be allocated to climate change mitigation, although it is unclear whether there will be a difference made between mitigation and adaptation. The allocation of revenue from the tax for climate change mitigation will be regulated by and based on government regulations after being submitted by the Government to the House of Representatives to be discussed and agreed upon in the preparation of the Budget State Revenue and Expenditure Draft. |  |
| 1. Ensure international cooperation for greater consistency globally
 |  |  |
| 1. Develop mechanisms through inclusive, transparent consultation with business and other key stakeholders
 |  | It is recognised that achieving the net-zero goals will require a transformation of carbon markets in coming decades, including more interplay between compliance and voluntary markets. While the expansion of carbon taxes and ETSs is crucial, voluntary markets for carbon credits can play a complementary role in incentivising emissions reductions and removals. Well-designed voluntary markets may support mitigation in jurisdictions and sectors that do not have the readiness to implement a compliance system[[40]](#footnote-41)It is noted that with respect to the Indonesia carbon tax, interaction between compliance and voluntary market should be a design feature in order to have effective carbon pricing. It is recommended that the government build voluntary markets within the framework, and not treat it as a subset of the compliance.Currently, there appears to be a lack of understanding or clarity from the government on this point and no discussions have been initiated to date. on how the two elements could be linked. It is noted that it would be important to have these markets connect, in order to have a more holistic, concrete and transparent approach going forward.The current lack of understanding creates challenges for the voluntary market, which makes it unworkable in practice.It is considered that aside from the carbon tax, there needs to be another angle from the market-based instruments to give signal to the market on what is the real social cost of carbon. A compliance market is useful, however if companies wish to purchase more expensive carbon credits it should be possible to do so.  |

1. **NEW ZEALAND EMISSIONS TRADING SCHEME**
2. **INTRODUCTION & FACTSHEET**

Under the 2015 Paris Agreement, New Zealand has committed to join with other countries in holding the increase in the global average temperature to 1.5°C and reaching net zero global emissions by 2050. In 2019, it set a new domestic emissions reduction target by 2050 into law with the Climate Change Response (Zero Carbon) Amendment Act40[[41]](#footnote-42) and established an independent Climate Change Commission to provide advice to Government on climate change mitigation and adaptation and to monitor progress towards the new 2050 target emissions budgets as well as the implementation of a National Adaptation Plan.

During COP26 in November 2021, New Zealand announced an updated NDC under the Paris Agreement for the period 2021 to 2030, committing to reduce emissions to 50% below gross 2005 levels by 2030. The country sees effective and adequate pricing of emissions as an important tool to achieve its goals.[[42]](#footnote-43) Carbon pricing is seen to help set economic incentives for a transition to a sustainable, net zero emissions economy by also mobilising the financial investments required to stimulate deployment and development of climate technologies and market innovation, and also fuelling new, low-emissions drivers of economic growth.

The government first launched an ETS in 2008 as a central policy for climate change mitigation. It has broad sectoral coverage, including forestry having emissions surrender obligations and the opportunity to earn units for emissions removals. Currently, biological emissions from agriculture have reporting obligations without surrender obligations. The Climate Change Response Act 2002 sets the legislative framework for the NZ ETS and incorporates all of New Zealand’s key climate legislation under one Act. Legislation to reform the NZ ETS was introduced to Parliament in October 2019 and passed in June 2020.[[43]](#footnote-44)

|  |
| --- |
| FACTSHEET |
| Years of Implementation | 2008 |
| Regulator | New Zealand Government |
| Policy mechanism(s) | Emissions Trading System |
| Targets |  |
| GHGs covered | CO2, CH4, N2O, HFCs, PFCs and SF6. However, nitrous oxide and methane emissions from agriculture are not covered by the NZ ETS emissions price. |
| Sectors covered | Forestry (mandatory for deforestation of pre-1990 forest land; voluntary for post-1989 afforestation); liquid fossil fuels, stationary energy; industrial processes; waste; agriculture (reporting only) The NZ ETS covers all sectors of New Zealand's economy. Different sectors participate in the NZ ETS in different ways. Under legislation passed in June 2020, agriculture will face an emission price no later than 2025, and a voluntary permanent forestry activity for post-1989 forests will be introduced in 2023.  |
| Pricing | Latest update on prices (1 January 2022): a rising price corridor has been created; the price at which extra units could be released for sale from the cost containment reserve during NZ ETS auctions will increase from $50 to $70 and will increase by 10% plus inflation each year. The auction price floor will increase from $20 to $30 and increase at 5% plus inflation each year. Further increase in prices may be established in 2023 or later. Modelling from the Productivity Commission found that an emissions price of $150–250 per tonne of carbon is needed to achieve net zero emissions by 2050.**Price ceiling mechanism**: participants can purchase unlimited NZUs from the government for immediate surrender (not banking or trading) at a fixed price of NZ$25 per NZU. |
| Use of offsets and linking | At present, no use of offsets is foreseen. The NZ ETS is not linked to systems in other jurisdictions |
| Revenue allocation | The government has been considering options for how to better use the revenues to also support low-income households and different climate projects. In December 2021, a Climate Emergency Response Fund (CERF), made up of $4.5 billion in proceeds from the Emissions, was established to help meet New Zealand’s climate objectives, including moving to a “low emissions and climate resilient economy in a way that protects vulnerable communities”. |

**2. PRINCIPLES TEST & ASSESSMENT: USEFUL FEATURES / BEST PRACTICES**

|  |  |  |
| --- | --- | --- |
| ICC Carbon Pricing Principle | Application | Comments |
| 1. Focus on GHG emissions reduction as prime target, including the prevention of GHG leakage
 | The Government has put an overall limit (cap) on the emissions that participants produce. As the NZU supply decreases over time, the demand will increase, causing the price to rise. This makes emissions-intensive technology and behaviour more expensive and encourages businesses and individuals to find ways to reduce their emissions and increase removals, such as by planting forests. | Inclusion of the forestry sector with emission liabilities as well as credits, an ETS world first, was intended to both discourage deforestation and incentivise afforestation.Enabling unique emission factors offers a fair approach – and a further emission-reduction incentive – for those whose emissions may fall below the industry average.Main drawback: the NZ ETS in its current form does not differentiate between carbon removals by forests and gross emissions reductions. If left unchanged, this will drive the relatively low short-run cost abatement option of planting pines, rather than more costly gross emissions reductions that put Aotearoa on a path to net zero that is sustainable over the long term beyond 2050. |
| 1. Create a reliable, predictable overall framework
 | Applying a unit make-good requirement in addition to a financial penalty for failing to surrender units is intended to safeguard the environmental integrity of the system. |  |
| 1. Promote consistency between climate, energy, trade and taxation policy
 |  |  |
| 1. Create a clear and robust transparency framework
 |  | The separation of administrative and registry functions from policy making functions has helped to distribute effort and decision-making authority across departments and improve transparency. |
| 1. Maintain accessibility to and affordability of low-carbon and clean energy sources
 | Free allocation can help producers adjust more gradually to the cost of emission constraints while they continue to face incentives to reduce emissions.  | Non-trade-exposed producers (such as electricity generators and transport fuel suppliers), which can pass on emission costs to their customers, are not eligible for free allocation. |
| 1. Promote international linking of carbon pricing instruments
 |  |  |
| 1. Recognize that there is no “one-size-fits-all” single instrument
 |  |  |
| 1. Couple carbon pricing with investment in climate change mitigation and adaptation
 |  |  |
| 1. Ensure international cooperation for greater consistency globally
 | Ongoing output-based free allocation to emissions-intensive and trade exposed industrial producers was intended to support their international competitiveness and prevent leakage of production and emissions offshore.  |  |
| 1. Develop mechanisms through inclusive, transparent consultation with business and other key stakeholders
 |  |  |

1. **SOUTH AFRICA CARBON TAX**
2. **INTRODUCTION & FACTSHEET**

In 2009, South Africa made a voluntary commitment to reduce its GHG emissions by 34 percent in 2020 and 42 percent in 2025. As part of its Low Emission Development Strategy developed in 2020 and signatory to the Paris Agreement, it committed to become a net zero emissions economy by 2050[[44]](#footnote-45). South Africa presented an updated NDC in September 2021 where it expressed the intention to “peak, plateau and decline” its GHG emissions, so that its 2025-30 emissions will be in a range from 398 million to 614 million tCO2e, then decline from 2036 onwards.[[45]](#footnote-46) Carbon tax, along with recycling of the revenues raised, has been recognised as a key policy instrument to support the achievement of the country’s mitigation goals.

The key objectives of the mechanism are to reduce greenhouse gas emissions; apply the “polluters-pay-principle”; encourage low carbon ecosystems for businesses and communities as well as provide opportunities for state revenues and overcoming financing gaps, while driving sustainable growth.

In 2019, South Africa passed a Carbon Tax Act[[46]](#footnote-47) and started pricing GHG emissions in all sectors other than waste and Agriculture, Forestry and Other Land Use (AFOLU) - making it the first African county to introduce a carbon pricing scheme.

|  |
| --- |
| FACTSHEET |
| Years of Implementation | Phase 1: 1 June 2019-31 December 2025Phase 2: 2026 |
| Regulator | South African government |
| Policy mechanism(s) | Levy scheme – carbon tax |
| Targets | Reduce GHG emissions by 34% in 2020, 42% in 2025 and net-zero emissions economy by 2050.South Africa’s NDC aims to “peak, plateau and decline” itGHG emissions, so that its, so that its 2025-30 emissions will be in a range from 398 million to 614 million tCO2e, then decline from 2036 onwards.  |
| GHGs covered | CO2, CH4, N2O, PFCs, HFCs, and SF6 |
| Sectors covered | The carbon tax has a broad coverage based on the IPCC sources and categories (2006) and applies to sources including:• Fossil fuel combustion and electricity generation,• Fugitive emissions such as methane emissions from mining,• Industrial processes: cement, iron, steel, glass, ceramics.* Scope 1, stationary emissions
* Scope 1, non-stationary emissions from road transport
 |
| Pricing | The price started Phase 1 (1 June 2019 to 31 December 2025) at ZAR120/tCO₂e and is gradually increasing each year. In 2021 the carbon tax rate was R134/tCO2e (US$7/tCO2e) and in 2022, the levy is set at ZAR144/tCO₂e (US$8.5/tCO2e)Effective tax rate of about US$3/tCO2e |
| Use of offsets and linking | Companies that are liable to pay the carbon tax may offset 5% or 10% of their taxable emissions using carbon credits issued by the Clean DevelopmentMechanism, the Verified Carbon Standard and the Gold Standard. Certain eligibility requirements apply, and only offsets originating in South Africa and from projects that don’t receive benefits from other government incentives (such as the Renewable Energy Independent Power Producer Procurement Programme or the energy efficiency tax incentive) are eligible. |
| Revenue allocation | The carbon tax is revenue-neutral during the first phase. Revenue recycling measures complement the carbon tax regime to:• Address concerns about the impacts of the carbon tax on the competitiveness of firms operating in international markets (e.g., via tax reductions, tax incentives)• Help address any potential negative impacts on the welfare of poorer households (in particular for energy and transport). |

**2.PRINCIPLES TEST & ASSESSMENT: USEFUL FEATURES / BEST PRACTICES**

|  |  |  |
| --- | --- | --- |
| ICC Carbon Pricing Principle | Application | Comments |
| 1. Focus on GHG emissions reduction as prime target, including the prevention of GHG leakage
 | South Africa expressed a voluntary commitment to reduce its GHG emissions by 34 percent in 2020 and 42 percent in 2025 and recognises carbon taxation as a key policy instrument to support the achievement of its mitigation goals. | The carbon tax aims to provide a price signal to producers and consumers of carbon intensive products, creating an incentive to reduce emissions and invest in low and net zero emissions technologies. The carbon tax rate is relatively modest ranging from R6 to R48 per tonne of CO2 equivalent emitted, which could be considered as being less effective in reducing emissions. The low tax rate is intended to further provide current significant emitters time to transition their operations to cleaner technologies through investments in energy efficiency, renewables and other low carbon measures.It would seem that the primary reason for the introduction of a carbon tax appears to be to close budget holes. This is evident from the way it is designed, which is not geared to change behaviour. There was, however, an environmental tax. Discussions with the private sector indicate that the system is considered to be quite complex and results in a relatively low-level tax on all emissions. South Africa settled on a tax with a headline tax rate that would then be discounted with a 60% tax free threshold. Depending on the sector other discounts could be afforded, such as a percentage discount for reduced emissions against a particular benchmark, which essentially results in tax payments on a small percentage. More generally speaking, carbon pricing systems are effective in reducing emissions, but that has not necessarily been the case in South Africa. To date, the country’s revised NDC targets are still insufficient to limit global warming to 2°C, not to mention the Paris Climate Agreement target of 1.5°C.There is still room for improvement given the current context and level of effectiveness with the carbon tax system in South Africa. It would be useful to have a system that puts a price on carbon, as opposed to a system that provides a minimum that can be emitted. The national treasury determined that a carbon tax would be preferable to an ETS system because the structure would be too large and could have monopolised the market. It is believed however that it may have been useful to open the market to explore other alternatives, particularly in view of the fact that the South African economy is heavily based on coal. In this case an open trade system may have been a better option. |
| 1. Create a reliable, predictable overall framework
 |  | As the SA carbon tax system cuts across a number of different sectors (e.g., mining, gas, combustion, etc) there are difficulties presented with respect to benchmarking as some industries have very unique operations and sizes. It is therefore noted that there could be room for improvement in this regard. |
| 1. Promote consistency between climate, energy, trade and taxation policy
 | After a period of 12 years, both the National Treasury and the Ministry of Environment came together to align the instruments and the carbon tax system released in 2019, was a result of these efforts. | It would appear that there was a lack of alignment between the objectives of the National Treasury and the Ministry of Environment, for a carbon tax. The differing mandates/objectives between the two has created challenges in terms of design, implementation and effectiveness. The objectives for National Treasury are related to finance/revenues. The Ministry of Environment seeks to achieve climate-related objectives and put forward a “carbon budgeting” approach, which provides a minimum that can be emitted, that can be reduced over time. The two big emitters are Sasol and Eskom.Shortly thereafter, the National treasury indicated that they wanted a carbon tax.The carbon budgeting system could migrate into an ETS, however National Treasury determined that they did not prefer that option. Whilst there is movement and potential for change in the country, the challenge is that efforts are not streamlined and there is no common vision. For example, South Africa has a large potential for green hydrogen, however other countries with enabling policies to have allowed them to move faster.  |
| 1. Create a clear and robust transparency framework
 |  |  |
| 1. Maintain accessibility to and affordability of low-carbon and clean energy sources
 | The carbon tax on electricity will be revenue neutral in the first phase and have no impact on the price of electricity.  | Just transition is also important in SA, as many communities will be impacted. The COVID pandemic has had reverberating consequences in the country, with many people losing their jobs, which has exacerbated challenges for businesses. Additional tax obligations in the current context can hamper broader political climate objectives for the country, particularly as businesses are not in a position to mitigate, as well as issues related to the complexity of special permissions and licenses. |
| 1. Promote international linking of carbon pricing instruments
 |  |  |
| 1. Recognize that there is no “one-size-fits-all” single instrument
 |  |  |
| 1. Couple carbon pricing with investment in climate change mitigation and adaptation
 | The South Africa carbon tax targets primarily the large emitters, to encourage behavioural change while allowing them time to transition to cleaner technologies by introducing a low carbon tax rate in the first phase. | The risk in some instances, however, has resulted in some companies shutting down as opposed to mitigating. It is of the view that mitigation is not developed enough in the country to deal with such a high tax.Furthermore, there is also very little recycling/ reinvestment of revenues for climate objectives. Carbon pricing needs to be effective, efficient and have mitigation at its core. One of the primary objectives at the core of a carbon tax has to be mitigation, in the context of the Paris Agreement goals, as well as maintaining competitiveness. |
| 1. Ensure international cooperation for greater consistency globally
 |  | While providing a price signal to incentivise the transition to a low-carbon economy, the proposed policy is also intended to reduce the risk of negative competitiveness implications and leakage through special provisions for sectors considered to be at risk. It further aims to pre-empt any possible impacts on trade with countries that may implement Border Carbon Adjustments. |
| 1. Develop mechanisms through inclusive, transparent consultation with business and other key stakeholders
 | In the South Africa case, the methodology for determining the sector-based trade exposure allowance was elaborated in close collaboration with the private sector. It has been adjusted from a company to a sector-based trade exposure allowance and will also include imports in the revised formula. | However, it is noted more generally that a carbon tax should be designed and set in a way that ensures broader corporate support and/or collaboration with business stakeholders in the process.  |

# ANNEX 1: Outline of Key Greenhouse Gas Emissions Pricing System Policies & Design Features

The purpose of this outline is to provide a framework by which existing GHG emissions pricing systems/policies can be evaluated in light of the ICC Carbon Pricing Principles. The GHG pricing system in place in a jurisdiction is likely to be composed of one or more (or a combination) of the following six key policies. For each policy, core design features and possible modalities are described.

The six key pricing policies must be read and assessed together because pricing normally requires a policy-mix (e.g., emissions trading schemes accepting project-based offsets[[47]](#footnote-48) and relying on taxes as penalties or, possibly, on international linking with other schemes or even a Carbon Border Adjustment Mechanism CBAM). They are presented as an ‘issue-spotter’ to facilitate the analysis of international, regional, country or sub-national pricing systems.

The main focus is on legally required carbon pricing systems. There are a wide variety of voluntary initiatives with different degrees of institutionalisation that could also be relevant. They tend to present broadly similar design features, but there are also significant variations (e.g., voluntary carbon offsets when purchasing a flight ticket, or so-called ‘green investment schemes’ which associate a pro-environment project to a transfer of allowances). For the purpose of this work, serving as additional support and guidance for governments and policy makers, we will focus on domestic compliance schemes, while also taking into account recent developments in the voluntary carbon market.

**Policy 1: Emissions Trading Scheme (negative externality internalisation)**

**Definition:** The regulator requires emitters to compensate for their emissions, which they may do by surrendering tradable credits.

**Design features:**

1. Regulator: Regional regulator / State government / Substate government
2. Coverage:
	1. *Gases:* carbon dioxide / Other gases
	2. *Emitters by:*
* Sector
* Facility type
* Facility size
* Facility location
* New or existing
	1. *Emissions:*
* Cap-and-trade scheme
* Baseline-and-credit scheme[[48]](#footnote-49)
1. Supply of credits:
* Free allocation
* Auctioning/Purchase
1. Price controls:
* Direct price floors and cap
* Alterations to number of credits supplied
* ‘Central-bank’-like supply
* Demand interventions to keep price within bands
1. Nature of credits:
* Time-validity
* Allowances and/or offsets
* Nature of underlying emission reduction or removal
* Relevant industries
* Relevant jurisdictions
1. Compliance obligation:
* Restrictions on combined credits used
* In case of shortfall: fee reflecting the market price for credits
* Inflated price for the remaining emissions
* Greater number of credits by a later date
* Administrative penalties and fines
1. Revenue allocation:
* Revenue-neutral
* Climate-related allocation
* Non-climate-related allocation

**Policy 2: Crediting Scheme (Project-based offsets)/Positive externality internalisation**

**Definition:** The regulator issues tradeable credits as an incentive to emitters who achieve emissions reductions or greenhouse gas removals. The project-based offsets allow emitters to compensate for emissions generated elsewhere through specific projects.

**Design features:**

1. Regulator:
* International regulator (e.g., CDM Executive Board)
* Regional regulator
* State government
* Substate government
1. Coverage:
	1. *Gases:*
* Carbon dioxide
* Other greenhouse gases
	1. *Activities:*
* Emissions removal
* Emissions Reduction
* Carbon removal projects
* Operational reductions from BAU industries
	1. *Jurisdiction:*
* Globally
* Specified jurisdiction
1. Credit Amount:
* Baseline-based (emission reductions from BAU)
* Based on volume of GHG removed from the atmosphere by the project (removals)
* Cap on the number of credits
1. Nature of credits:
* One or more types of credits (e.g., under Kyoto: CERs, ERUs, RMUs)
* Time-validity of credits
* Certain types of emitters /industries /certain jurisdictions
* Fungibility of credits
* Restrictions on use or transfers

**Policy 3: Levy Scheme (negative externality internalisation) /Carbon tax**

**Definition:** The regulator raises revenue in a manner that increases the costs of greenhouse gas intensive products or services.

**Design features:**

1. Regulator:
* Regional
* State government
* Substate government
1. Legal nature:
	* Collected as a tax or as a regulatory charge
	* Raised indirectly by reducing subsidies available to GHG-intensive industries
2. Coverage: Types of emission / Types of products or services
	1. *Gases:*
* Carbon dioxide
* Other gases
	1. *Products and services:*
* Upstream products
* Downstream at the point of consumption
1. Price:
* Based on the GHG intensiveness of the good and granularity
* Planned price increases for a certain number of years
1. Revenue allocation:
* Revenue-neutral
* Climate-related allocation
* Non-climate-related allocation

**Policy 4: Support Scheme (positive externality internalisation)**

**Definition:** The regulator provides support, financial or otherwise, to those providing low greenhouse gas intensity products and services to support their viability.

**Design features:**

1. Regulator:
* International fund (e.g., GCF)
* Regional regulator
* State government
* Substate government
1. Legal nature:
	* Investment
	* Financial: Tax credits, tax rebates, preferential loans, loan support, equity injections or grants
	* Procurement: direct (low greenhouse gas intensity products, e.g., electricity from modern renewables) or indirect (local content requirements linked to direct procurement)
	* Mandates
	* Property: Legal protections for private investments in the target industries
2. Coverage: Specific industries / Products / Services
3. Magnitude of assistance:
	* Direct financial assistance
	* Increase costs paid as compared to higher GHG intensity alternatives
	* Other support like intellectual property rights
4. Adjustments over time / Cancellation (pre-determined length of time)

**Policy 5: Carbon Border Adjustment Mechanism**

**Definition:** The regulator uses trade-related measures to impose costs on imported goods with a view to equalizing the GHG emissions costs faced by domestic and foreign producers.

**Design Features:**

1. Regulator:
	* Regional regulator (e.g., European Commission)
	* State government
	* Substate government (if in charge of trade policy, e.g., Macau or Hong Kong)
2. Legal nature:
	* Import-based, export-based or both
	* Equalisation duty imposed at the border on foreign goods or at the point of consumption on all goods
	* Regulation (e.g., extension of an emissions trading scheme to importers, or mirroring regulation imposing similar cost)
	* Export rebates to remove internal GHG cost when good is exported
	* Free allocation or other support to equalise situation of domestic producers
3. Coverage: GHG emission-based / Limited to certain goods and materials
	1. *Gases:*
	* Carbon dioxide
	* Other gases
	1. *Emissions:* Schemes may vary in scope of the emissions they target (Scopes 1, 2 or 3 of the Greenhouse Gas Protocol)
	2. *Goods and materials:* Different goods and materials (raw materials, electricity and manufactured goods including those raw materials or electricity)
	3. *Exemptions:*
	* origin-based exemptions
	* subsequent equivalence-based exceptions
	* specific good or flow carve-outs
4. Additional Cost Imposed:
	* GHG pricing (based on home prices or some common standard)
	* Administrative costs
5. Revenue allocation:
	* Climate-related allocation
	* No climate-relate allocation

**Policy 6: Linking Mechanism**

**Definition:** The regulator(s) create a mechanism by which pricing mechanisms, normally allowances and offsets, can be used in two or more linked jurisdictions.

**Design features:**

1. Regulator(s) of the linked schemes:
	* Regional
	* State government
	* Substate government
2. Recognition:
	* Unilateral
	* Reciprocal
	* Multilateral
3. Legal nature:
	1. *Type of recognition:*
	* Unilateral recognition
	* Binding agreement between regulators (contract or treaty)
	* Non-binding cooperative mechanisms
	1. *Scope of the linking:*
	* allowances and/or offsets and/or compliance certificates with other pricing mechanisms
	* GHG, project and industry coverage (depending on scope of linked mechanisms)
4. Degree of integration:
	* Completely harmonized
	* Restricted

**[Acknowledgements]**

**ABOUT THE INTERNATIONAL CHAMBER OF COMMERCE (ICC)**

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1. See <https://unfccc.int/process/the-paris-agreement/cooperative-implementation> and <https://www.iccwbo.be/cop26-icc-sets-out-business-case-for-deal-on-emissions-trading/> [↑](#footnote-ref-2)
2. See <https://unfccc.int/process-and-meetings/the-paris-agreement/the-glasgow-climate-pact-key-outcomes-from-cop26> [↑](#footnote-ref-3)
3. <https://www.ipcc.ch/assessment-report/ar6/> [↑](#footnote-ref-4)
4. <https://www.carbonpricingleadership.org/what> [↑](#footnote-ref-5)
5. Add reference to ICC papers on Article 6 [↑](#footnote-ref-6)
6. IETA (2021) The Potential Role of Article 6 Compatible Carbon Markets in Reaching Net-Zero <https://www.ieta.org/resources/Resources/Net-Zero/Final_Net-zero_A6_working_paper.pdf> [↑](#footnote-ref-7)
7. [OECD Carbon Pricing and COVID-19](https://www.oecd.org/environment/carbon-pricing-and-covid-19-8f030bcc-en.htm) [↑](#footnote-ref-8)
8. [OECD Framework to Decarbonise the Economy](https://www.oecd.org/economy/greeneco/framework-to-decarbonise-the-economy/) [↑](#footnote-ref-9)
9. [World Bank Group Carbon Pricing Dashboard](https://carbonpricingdashboard.worldbank.org/) [↑](#footnote-ref-10)
10. See World Bank. 2022. State and Trends of Carbon Pricing 2022. State and Trends of Carbon Pricing. Washington, DC: World Bank. © World Bank. https://openknowledge.worldbank.org/handle/10986/37455 License: CC BY 3.0 IGO.”; <https://carbonpricingdashboard.worldbank.org/>

URI [↑](#footnote-ref-11)
11. [World Bank Group State and Trends of Carbon Pricing Report (2021)](file:///C%3A%5CUsers%5Crmn%5CDownloads%5C9781464817281%20%281%29.pdf) [↑](#footnote-ref-12)
12. See World Bank Group Report (2017) The FASTER principles for successful carbon pricing : an approach based on initial experience <http://documents.worldbank.org/curated/en/901041467995665361/The-FASTER-principles-for-successful-carbon-pricing-an-approach-based-on-initial-experience> [↑](#footnote-ref-13)
13. For instance, carbon taxes can have broad coverage, applying to most stationary and specific non-stationary GHG sources including: (i) Fossil fuel combustion and electricity generation; (ii) fugitive emissions such as methane emissions from mining; and (iii) industrial processes: cement, iron, steel, glass, ceramics. All activities that emit GHGs above a specified threshold will be liable. [↑](#footnote-ref-14)
14. See IMF/OECD Report for the G20 (April 2021) Tax Policy and Climate Change. [↑](#footnote-ref-15)
15. See <https://www.annualreviews.org/doi/10.1146/annurev-environ-102017-025817> [↑](#footnote-ref-16)
16. The [UN Handbook on Carbon Taxation](https://www.un.org/development/desa/financing/document/un-handbook-carbon-taxation-developing-countries-2021) provides detailed insights related to the design and implementation of carbon taxation. [↑](#footnote-ref-17)
17. Useful resources: [World Bank: Emissions Trading in Practice: A Handbook on Design and Implementation](https://openknowledge.worldbank.org/handle/10986/23874); [IEA Implementing Effective Emissions Trading Systems](https://www.iea.org/reports/implementing-effective-emissions-trading-systems) [↑](#footnote-ref-18)
18. Government of Canada, Pan-Canadian Framework on Clean Growth and Climate Change (2016), online: <www.canada.ca/content/dam/themes/environment/documents/weather1/20170125-en.pdf>. [↑](#footnote-ref-19)
19. PCF, at 6-7. [↑](#footnote-ref-20)
20. *Greenhouse Gas Pollution Pricing Act*, S.C. 2018, c. 12, s. 186, preamble. [GHG PPA] [↑](#footnote-ref-21)
21. In March 2021 the Supreme Court of Canada found that global warming causes harm beyond provincial boundaries and that it is a matter of national concern under the “peace, order and good government” clause of the Constitution. The decision noted that the federal Parliament has the authority to apply a price on carbon pollution in jurisdictions that do not have their own system that meets minimum national stringency standards.￼ [↑](#footnote-ref-22)
22. Government of Canada, Canada’s 2021 Nationally Determined Contribution Under the Paris Agreement (2021), online: <www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Canada%20First/Canada%27s%20Enhanced%20NDC%20Submission1\_FINAL%20EN.pdf>. [↑](#footnote-ref-23)
23. See https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/climate-plan-overview/emissions-reduction-2030.html [↑](#footnote-ref-24)
24. See https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work/carbon-pollution-pricing-federal-benchmark-information.html [↑](#footnote-ref-25)
25. Please refer to the overview of current carbon pricing systems across Canada https://www.canada.ca/en/environment-climate-change/services/climate-change/pricing-pollution-how-it-will-work.html [↑](#footnote-ref-26)
26. See https://publications.gc.ca/collections/collection\_2016/eccc/En4-287-2016-eng.pdf [↑](#footnote-ref-27)
27. [IMF news articles - four charts on Canada's carbon pollution pricing system](https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.imf.org%2Fen%2FNews%2FArticles%2F2021%2F03%2F17%2Fna031821-four-charts-on-canadas-carbon-pollution-pricing-system%23%3A~%3Atext%3DA%2520drawback%2520of%2520carbon%2520pricing%2Cabout%25202%2520percent%2520of%2520consumption&data=05%7C01%7Craelene.martin%40iccwbo.org%7Cf849470dfc5f4a1e2f3908daa061e48b%7Cc541a3c6520b49ce82202228ac7c3626%7C0%7C0%7C637998639546341612%7CUnknown%7CTWFpbGZsb3d8eyJWIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6Ik1haWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=I6%2FPAKawj7bYSoiZs632auyK2k%2BcMRVba%2BgErQpDsAw%3D&reserved=0) [↑](#footnote-ref-28)
28. See https://climate.ec.europa.eu/eu-action/european-green-deal/delivering-european-green-deal\_en [↑](#footnote-ref-29)
29. See [↑](#footnote-ref-30)
30. See <https://www.europarl.europa.eu/doceo/document/TA-9-2022-0246_EN.pdf> and https://www.consilium.europa.eu/en/press/press-releases/2022/06/29/fit-for-55-council-reaches-general-approaches-relating-to-emissions-reductions-and-removals-and-their-social-impacts/ [↑](#footnote-ref-31)
31. See <https://ec.europa.eu/clima/eu-action/funding-climate-action/innovation-fund_en> and <https://ec.europa.eu/clima/eu-action/funding-climate-action/modernisation-fund_en>

Since beginning of program: EUR 69.7 billion (USD 80.7 billion) Collected in 2020: EUR 19.2 billion (USD 21.8 billion) [↑](#footnote-ref-32)
32. Both updated targets (2030 and 2050) were enshrined into the European Climate Law on 9 July 2021. [↑](#footnote-ref-33)
33. European Parliament (2003) Art. 1, Directive EC/87/2003 [↑](#footnote-ref-34)
34. See figure 1. Cap reduction applying the linear reduction factor of 2.2% as of 2021 (<https://ec.europa.eu/clima/system/files/2021-10/com_2021_962_en.pdf>) [↑](#footnote-ref-35)
35. See <https://www.esma.europa.eu/sites/default/files/library/esma70-445-38_final_report_on_emission_allowances_and_associated_derivatives.pdf> [↑](#footnote-ref-36)
36. See [https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Indonesia%20First/Updated%20NDC%20Indonesia%202021%20%20corrected%20version.pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Indonesia%20First/Updated%20NDC%20Indonesia%202021%20-%20corrected%20version.pdf) and <https://unfccc.int/sites/default/files/resource/Indonesia_LTS-LCCR_2021.pdf> [↑](#footnote-ref-37)
37. See English version of ”Presidential Regulation No. 98/2021 on the Instrument for the Economic Value of Carbon for Achievement of the NDC and Control of Carbon Emissions in Development” <https://jdih.maritim.go.id/cfind/source/files/perpres/2021/perpres-nomor-98-tahun-2021-english-version.pdf> [↑](#footnote-ref-38)
38. <https://en.tempo.co/read/1577672/carbon-pricing-regulation-in-indonesia-a-legal-analysis> [↑](#footnote-ref-39)
39. <https://www.cifor.org/knowledge/publication/5673/> [↑](#footnote-ref-40)
40. (Institute of International Finance (2021) Getting to Net Zero: The Vital Role of Global Carbon markets. Available at: iif.com/Portals/0/Files/content/Regulatory/10\_26\_2021\_netzero.pdf.) [↑](#footnote-ref-41)
41. See <https://environment.govt.nz/acts-and-regulations/acts/climate-change-response-amendment-act-2019/> [↑](#footnote-ref-42)
42. See <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/New%20Zealand%20First/New%20Zealand%20NDC%20November%202021.pdf> [↑](#footnote-ref-43)
43. See https://www.mpi.govt.nz/forestry/forestry-in-the-emissions-trading-scheme/updates-and-changes-to-the-ets/ [↑](#footnote-ref-44)
44. See [South Africa's Low Emission Development Strategy](https://unfccc.int/sites/default/files/resource/South%20Africa%27s%20Low%20Emission%20Development%20Strategy.pdf) 23 September 2020 [↑](#footnote-ref-45)
45. See <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/South%20Africa%20First/South%20Africa%20updated%20first%20NDC%20September%202021.pdf> [↑](#footnote-ref-46)
46. See <https://www.gov.za/documents/carbon-tax-act-15-2019-english-afrikaans-23-may-2019-0000> [↑](#footnote-ref-47)
47. A carbon offset is defined as “any activity that compensates for the emission of carbon dioxide (CO2) or other greenhouse gases (measured in carbon dioxide equivalents, CO2e) by providing for an emission reduction elsewhere”. In other words, an individual or an organization can compensate for their CO2 emission through the support of certified emission reduction projects that absorb or reduce CO2 emissions.

Selin N.E., “Carbon Offset”, 2011, Encyclopaedia Britannica, available at: <https://www.britannica.com/technology/carbon-offset/additional-info> [↑](#footnote-ref-48)
48. There is no fixed limit on emissions, but polluters that reduce their emissions more than they otherwise are obliged to can earn ‘credits’ that they sell to others who need them in order to comply with regulations they are subject to. [Source](https://www.oecd.org/env/tools-evaluation/emissiontradingsystems.htm)  [↑](#footnote-ref-49)