Climate Contribution Hub

Climate Responsibility Approach

Setting a carbon fee

November 2025

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Polluter-pays principle
The principle by which polluters should pay for the costs to prevent, control and remedy pollution as well as the costs imposed on society, such as those associated with impacts on health, loss of ecosystem services, or the economy.

Ongoing emissions
Greenhouse gas continuously emitted by an organisation as part of its regular operations. Not to be confused with residual emissions.

Money-for-ton approach
A method by which an organisation takes responsibility for its ongoing emissions by applying an internal carbon fee per ton of CO2e and raise a contribution budget. The budget is spent to support climate projects. There is a direct link between the organisation's climate impact and the funds it raises. The level of the carbon fee is determined by the organisation. Not to be confused with money-for-money and ton-for-ton.

Ton-for-ton approach
A method by which an organisation takes responsibility for its ongoing emissions by offsetting them and purchase an equivalent amount of carbon credits. Not to be confused with the money-for-ton and the money-for-money approaches.

Following the *polluter pays principle*, organisations should take responsibility for their *"ongoing emissions"*. Indeed, even with a robust climate strategy, organisations keep releasing greenhouse gases into the atmosphere to run their activities and will continue to do so along their decarbonisation journey.

The climate responsibility approach follows a *"money-for-ton" method.* When "money-for-ton" is applied, money is raised in proportion of the emissions, to internalise their environmental cost, take responsibility and incentivise emission reduction. This is different to the *"ton-for-ton" approach* , in which each ton of CO_2 emitted is matched by a ton of CO_2 removed or offset, regardless of their real cost to society.

With the money raised, the organisation generates a climate contribution budget, to support climate action beyond its value chains (See Step 4). The climate contribution budget can be calculated through a simple formula.

Climate contribution budget = Carbon fee × ongoing CO2e emissions

We recommend that organisations calculate their climate contributions based on the formula above, and to repeat this exercise on a yearly basis, checking all relevant components:

* the emissions accounting is updated (See Step 1);
* the scope coverage remains the same or has been expanded (See Guidance on scope coverage);
* the carbon fee is updated (See below).

Pricing ongoing emissions with a carbon fee

The carbon fee is a price set by an organisation to voluntary internalise the external cost of the damage caused by its carbon emissions. With a carbon fee, your organisation takes responsibility for the damage caused by climate change, incentivises internal emissions reductions by putting a price on emissions and sends a clear signal about an organisation's level of climate ambition.

Your organisation should apply a carbon fee on each ton of ongoing emissions released into the atmosphere.

The term 'fee' reflects the requirement for actual payments, distinguishing it from hypothetical pricing mechanisms.

Q&A: What is the difference between a carbon fee and other types of carbon prices?

The carbon fee refers to one type of internal carbon price, an instrument aimed at assigning a monetary value to greenhouse gas emissions to integrate their external costs into decision making. The carbon fee should not be conflated with other policy instruments that put a price on carbon.

The carbon fee is different from the shadow price of carbon, which consists of setting an internal carbon price for decision-making purposes only. A shadow carbon price serves as a hypothetical cost to guide investments and strategies but does not lead to fundraising. Therefore, the objective of a shadow carbon price is very different than that of a carbon fee. Shadow carbon prices can be defined at very high levels to incentivise climate friendly investment decisions without directly resulting in costs. This can be an effective tool for investment decision but is not related to the actual external costs of ongoing emissions.

The carbon fee is also different from compliance carbon prices, generated through regulatory instruments like a carbon tax or an emission trading system. These carbon prices aim to incentivise companies to find alternatives to their production processes and consumers to reduce their demand of carbon intensive products.

→ Find out more about the different types of carbon prices in I4CE's Carbon Pricing Q&A (2025).

→ Find out more about the general trends of carbon pricing in I4CE's Global carbon accounts (2025); World Bank's State and Trends of Carbon Pricing (2025).

Setting the right level of carbon fee with the social cost of carbon

The carbon fee should ideally be aligned with the social cost of carbon (SCC). If this is not possible because of financial constraints, we recommend that organisations set a carbon fee of minimum EUR 100/ tCO_2eq. Your organisation should establish a clear plan to gradually increase this level over time, adjusting for inflation and incorporating new scientific evidence (Figure 1).

The SCC estimates the monetary value of the economic damages caused to society by each additional ton of CO_2 emitted in the atmosphere. It reflects the long-term impact of carbon emissions on both present and future generations. We believe it is the most effective tool for estimating the cost of damage caused by ongoing emissions and for determining the right level of the carbon fee.

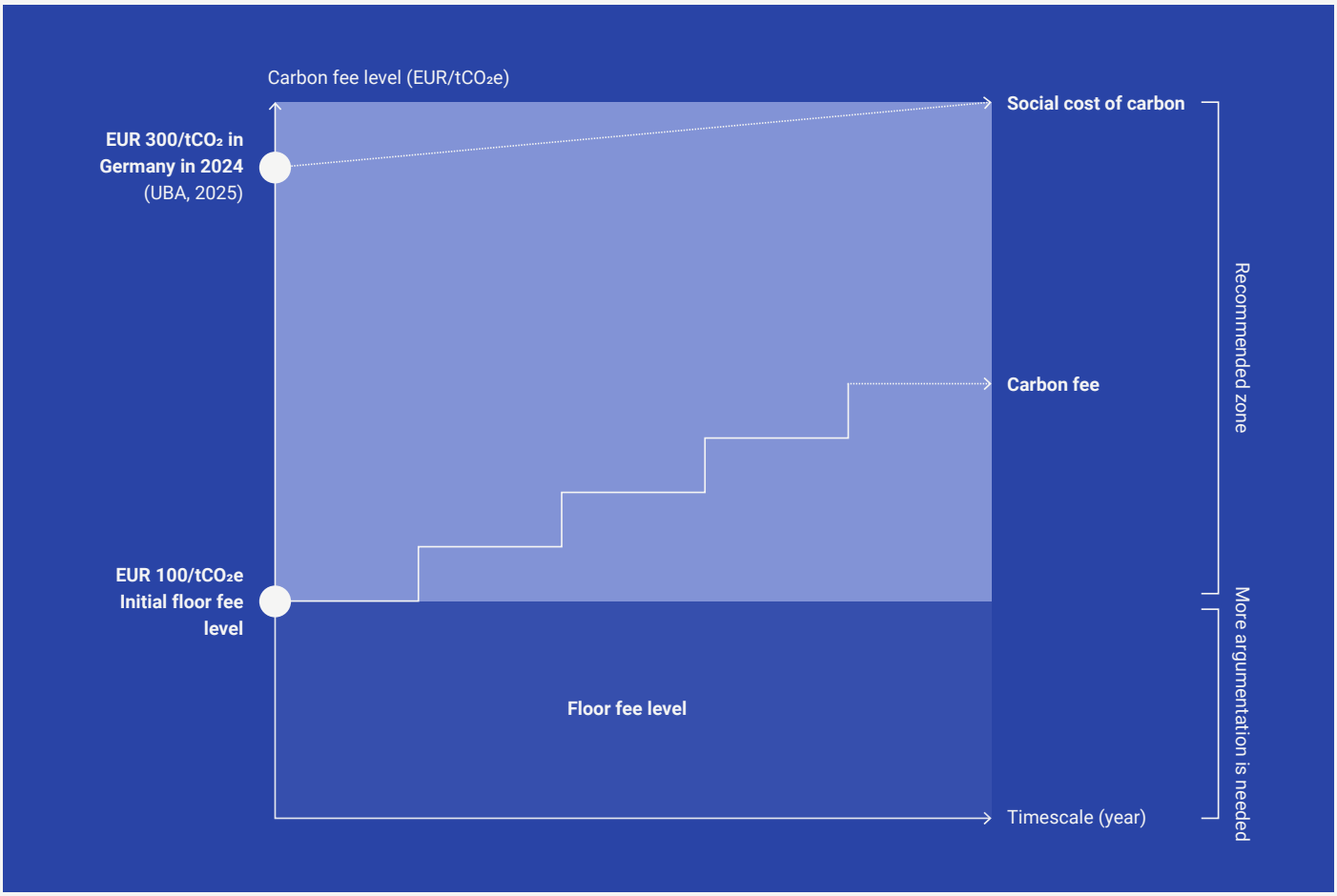

FIG 1: The carbon fee corridor: how to credibly price emissions

Academic research and government agencies do not provide a single answer as to what the appropriate level of the social cost of carbon should be – estimates range from USD -13 to 2,387/tCO_2, one study found (Wang et al., 2019). Results vary depending on the scale of analysis (global- or country-level), scenarios of future economic growth and emissions pathways, margins of uncertainty and social discount rates (i.e. the value given to present action for future generation). In recent years, values proposed by scholars and governments (e.g. Germany, the United States, and Canada) have increasingly converged, as they start using similar parameters for their calculations (Table 1).

When used as the basis for calculating climate contributions, we acknowledge that the social cost of carbon can be very high and beyond the capacity of organisations with limited financial resources. Nevertheless, it is important to set the carbon fee at sufficiently high levels to effectively incentivise internal decarbonisation. Literature has found evidence that supports SCC values above EUR 100/tCO_2 (IPCC, SR 1.5, Chap. 2, Cross-Chapter Box 5, p. 151).

Source	Scale	Social cost of carbon value
Umweltbundesamt, 2024	Germany	EUR 300/tCO_2e in 2024 EUR 435/tCO_2e in 2050
U.S. Environmental Protection Agency, 2023	United States	USD_{2020} 190/tCO_2 in 2020 USD_{2020} 210/tCO_2 in 2050
Governnment of Canada, 2023	Canada	CAD 247/tCO_2 in 2020 CAD 394/tCO_2 in 2050
Rennert et al., 2022	United States	USD 185/tCO_2e
Ricke et al., 2018	Global	USD 417/tCO_2

TAB 1: Levels of social cost of carbon as used by governments or estimated by academic literature

Q&A: What is the difference between the social cost of carbon and the marginal abatement cost?

The social cost of carbon and the marginal abatement cost are two recognised methods to estimate the value of carbon emissions. But their definition is different.

The **marginal abatement cost (MAC)** estimates the cost of reducing one ton of CO_2 emissions through a specific mitigation measure. The IPCC and other international bodies have used the marginal abatement cost curve (MACC) to classify technologies based on their cost-effectiveness in reducing emissions. It aims to help policy makers prioritise technological options to achieve their mitigation targets in a cost-effective manner.

The IPCC estimates that the marginal abatement cost in pathways that limit warming to 1.5°C (>50%) with no or limited overshoot are about 220 (170–290) USD_{2015} tCO_2 in 2030 and about 630 (430–990) USD_{2015} tCO_2 in 2050 (IPCC, AR6 WGIII, Chap. 3, p. 300).

The MAC is not appropriate for defining the level of carbon fee in the climate contribution approach. Besides, it has many shortcomings that question its ability to serve long-term, systemic transformations to achieve global climate neutrality.

Regularly reviewing the carbon fee level

We recommend regularly updating and raising the ambition level of the carbon fee, considering various developments such as climate science, inflation, own capabilities and what peers are doing.

The regular increase of the internal carbon fee is aligned with the principle of continuous progress anchored in the Paris Agreement, according to which each Party's successive NDC should represent a progression over time. By extension, non-State actors (including companies, local governments and civil society organisations) should also commit to continuous progress.

The Climate Contribution Hub is set up by NewClimate Institute with initial support from the Allianz Foundation. This website aims at providing step-by-step guidance to help businesses and civil society organisations (e.g. NGOs, foundations, trade-unions) measuring and reducing their greenhouse gas emissions and setting up a climate contribution to take responsibility for their ongoing emissions.

www.climateresponsibility.org

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