

## Implementing new EU climate targets for 2030 and 2050: Preliminary considerations on ETS extension

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### Key messages

To deliver its climate targets for 2030 and 2050, the EU is starting to reform its climate policies. Extending emission trading to road transport and buildings is among the most consequential proposals for implementing the new targets. This proposal promises stronger economic incentives to reduce emissions, considerable certainties for target achievement and additional revenues to support Europe's decarbonization. At the same time, the proposal bears important risks. It could delay the adoption of stronger policies when this decade is essential for achieving climate targets. It could dismantle the established system of Member State responsibility without a clear understanding of benefits of the new system. It could disproportionately burden the poor.

To address these risks, the current system of national targets should be maintained. It could be complemented by an ETS extended to buildings and road transport, but only if this new ETS strengthens economic incentives and includes certain elements, including a hard cap, and auctioning of allowances. Because of the different abatement costs in the EU ETS sectors and road transport and buildings, the two systems should be separate. Importantly, the new system must help compensate poor households for increased utility costs, while ensuring energy savings.

### About this paper

This paper is part of the project “Building bridges — High Trust Network with Conservative Groups for Ambitious Climate Action”, funded by the European Climate Initiative (EUKI).<sup>1</sup> The project aims to facilitate dialogues on climate policies between conservative and other groups from Hungary, Poland and Germany.

### Implementing the EU's new climate targets

The EU has agreed to become climate neutral by 2050. It is also set to increase its current 2030 emission reduction target from 40 %. While the Commission and Council suggested a net climate target of - 55%, the European Parliament proposed a gross reduction target of - 60 % (both compared with 1990 levels). On 17 December 2020, the EU submitted its enhanced NDC, including

<sup>1</sup> Opinions expressed in this paper represent the views of the authors and do not necessarily represent the position of the European Climate Initiative. For further information, please contact [nils.meyer-ohlendorf@ecologic.eu](mailto:nils.meyer-ohlendorf@ecologic.eu). This paper builds on previous paper in which this group presents preliminary considerations for establishing more ambitious 2030 EU climate goals: <https://www.ecologic.eu/17810>

“a binding target of a net domestic reduction of at least 55% in greenhouse gas emissions by 2030 compared to 1990”.<sup>2</sup> These targets will be legally binding once the European Climate Law is adopted. Even with the full implementation of current policies, the EU will not achieve these targets.<sup>3</sup> For this reason, the EU has started to revise its climate and energy rules. To this end, the Commission will make numerous legislative proposals in 2021, as outlined in the European Green Deal Communication. The EU climate law – an important element of implementing new targets – is expected to be adopted in the coming months.

### Options for extending emission trading to road transport and buildings

There are various proposals to make EU rules deliver new climate targets. All of them have distinct advantages and disadvantages. Extending emission trading (ETS) to road transport and buildings is among the most consequential proposals for implementing the EU’s new targets. There are many ideas how to extend emission trading to these sectors, such as:

- Including road transport and buildings in the existing EU ETS – with or without continued regulation by national reduction targets under the Climate Action Regulation,
- Establishing a new and separate ETS at EU level for road transport and buildings (hence not covered by the existing EU ETS), or
- Member States would be required to establish a national carbon pricing system for road transport and buildings, which could include a national ETS.<sup>4</sup>

### ETS extension: potential benefits and risks

In theory and depending on the exact designs, the extension of emission trading promises important benefits:

- **Increased economic incentives:** Carbon pricing can play an important role in cost-efficient emission reductions, including emission cuts in road transport and buildings. Some Member States have used carbon pricing successfully to reduce emission from road transport and buildings in a cost effective manner.<sup>5</sup> Because the EU can adopt rules on energy taxation only by unanimity, extension of emission trading is a promising way to introduce meaningful carbon prices at EU level for road transport and buildings.
- **Considerable certainty of meeting reduction targets:** Compliance with the EU ETS is very high. In 2018, less than 0.5% of the installations failed to surrender the required allowances on time.<sup>6</sup> Significantly overachieving its 2020 target of 21 % (compared to

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<sup>2</sup> [https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/European%20Union%20First/EU\\_NDC\\_Submission\\_December%202020.pdf](https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/European%20Union%20First/EU_NDC_Submission_December%202020.pdf)

<sup>3</sup> By 2030, current policies are expected to lead to a reduction of around 45%;<sup>2</sup> and of around 60% by 2050 (compared to 1990 levels), European Commission, Impact Assessment, accompanying: Stepping up Europe’s 2030 climate ambition SWD(2020) 176 final, p. 10.

<sup>4</sup> In its 2030 impact assessment, the Commission, for example, explored the following options (in broad terms with various sub-options)

<sup>5</sup> For an overview of carbon pricing in Europe: <https://taxfoundation.org/carbon-taxes-in-europe-2020/>

<sup>6</sup> [https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52019DC0557R\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52019DC0557R(01)&from=EN)

2005), the EU ETS reduced covered emissions by 33% between 2005 and 2018, and by an additional 9% in 2019.<sup>7</sup> This makes for a strong case to expand emission trading to other areas but it should be noted that the EU ETS is expected to reduce emissions only by 41 % in 2030,<sup>8</sup> falling short of the 43 % target, or even higher targets.

- **Revenue generation:** An extended ETS could generate substantial additional revenues – if allowances are auctioned. According to some estimates, a scheme based on auctioning could generate up to € 179 bn per year if about 70 % of the 2018 emissions under the Effort Sharing Decision were covered and the carbon price were between € 50 and € 100.<sup>9</sup> These revenues can support achieving climate neutrality and addressing the regressive effect of carbon pricing on low income households.

At the same time, however, extending the ETS involves **important risks**.

- **ETS extension could delay policies, undermining investment certainty:** The extension of the ETS to new sectors is a challenging, time-consuming and politically sensitive process, and its implementation is complex. It is very likely that extending ETS to road transport and buildings will not be operational before the mid-2020s. This is a crucial period for achieving the EU's new 2030 and 2050 targets. If the discussion on ETS extension drags on, necessary policies could be delayed, undermining mitigation efforts and investment certainty. For this reason, the question of whether and how to extend ETS must be settled quickly.
- **Economic incentives often weak:** In their specific designs, existing emission trading schemes in buildings and road transport have led to relatively small increases in carbon prices. In New Zealand, for example, a carbon price of 60 Euro per ton added 3 cents, or 2.5%, to gasoline price. Germany expects that its fixed carbon price of 25 – 65 Euros per ton would increase petrol prices by 6 ct and 13 ct per liter respectively. Expected increases in gas prices would result in a mere 0.5 ct / kwh and 1 ct / kwh.<sup>10</sup> Such price increases alone are not capable of driving necessary reductions and investments. In theory, it is possible to design emission trading schemes that lead to higher carbon prices, creating stronger incentives for reducing emissions from road transport and buildings, but prices increases must remain economically and socially viable.
- **Socially unfair:** Heating and fuels costs make up a larger share of poor households' expenses, in particular in poorer Member States. These households have little scope and capacity to invest. In consequence, extending ETS to road transport and buildings could disproportionately burden poorer households if the EU does not design a revenue recycling scheme to effectively address the regressive effect.

<sup>7</sup> Communication from the Commission: Stepping up Europe's 2030 climate ambition, COM(2020) 562 final

<sup>8</sup> <https://www.eea.europa.eu/publications/the-eu-emissions-trading-system>

<sup>9</sup> Umweltbundesamt: Raising the EU 2030 GHG Emission Reduction Target, Implications for ETS and non ETS sectoral targets, 2020, <https://www.umweltbundesamt.de/en/publikationen/raising-the-eu-2030-ghg-emission-reduction-target>

<sup>10</sup> [https://www.dehst.de/SharedDocs/downloads/EN/nehs/nehs-backgroundpaper.pdf;jsessionid=AFD5EDF7BB2BF6ACC197510B88916B5B.1\\_cid292?\\_\\_blob=publicationFile&v=2](https://www.dehst.de/SharedDocs/downloads/EN/nehs/nehs-backgroundpaper.pdf;jsessionid=AFD5EDF7BB2BF6ACC197510B88916B5B.1_cid292?__blob=publicationFile&v=2)

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## The way forward: Reconciling benefits and risks

It is possible to reconcile these potential benefits and risks. Legislative detail will determine whether the EU strikes the right balance between benefits and risks or not. But at this point the following considerations should guide the discussion.

- **ETS extension is only useful if it is fit for its purpose:** Extending the ETS is not ends itself but a means to an end – which is to help achieving emission reductions of at least 55 % by 2030 and climate neutrality by 2050. For this reason, a stringent cap in line with EU climate targets is the starting point for extending emission trading to road transport and buildings. In light of 15 years of EU ETS operation, it should be noted that this scheme became an effective driver of steeper emission reductions only after the tightening the linear reduction factor and the introduction and strengthening of the Market Stability Reserve,
- **Regulatory choices and policy mix:** Unless they increase substantially – probably well above 100€ per ton in 2030 –<sup>11</sup>, carbon prices alone are incapable of driving required emission reductions. Carbon prices at these levels are economically not viable for important parts of Europe's economies. For this reason, an extended ETS is only one component of a broader policy mix. This policy mix encompasses numerous policies, including, for example, support for public and shared mobility solutions as well as more stringent CO<sub>2</sub> standards for vehicle emissions. Increased standards can increase costs for businesses and consumers at least in the short term but are an essential tool to help establish markets for new technologies, to drive innovation and to save energy, thereby reducing the exposure to fluctuating energy prices. They also enhance investment security, often to higher degrees than varying carbon prices.
- **Separate system:** Abatement costs in road transport and buildings are significantly higher than in the energy sector. In consequence, a uniform carbon price could shift abatement incentives from road transport and buildings to energy, undermining the decarbonization of road transport and building. At the same time, carbon prices sufficient to incentivize required reductions in the road transport and building sectors could lead to strong competitiveness concerns for energy intensive industries. As a consequence, there is a stronger case – at this point – for creating a scheme that is separate from the EU ETS.<sup>12</sup>
- **Socially fair and politically acceptable:** According to Article 10.3 ETS Directive, at least 50% of auctioning revenues should be used for climate- and energy-related purposes. In 2018, Member States spent on average ~70% of these revenues on domestic and international climate-related purposes.<sup>13</sup> In the same year, auctioning revenues increased

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<sup>11</sup> Concerning Germany, estimates assume that carbon prices of around 46 € for 2021 and around 120 € for 2030 are required to stay within the cap, which is nearly twice as much as currently set out by the German system.

<sup>12</sup> Ecologic: Climate Action Regulation 2.0 - EU Framework for Making Non-ETS Sectors Climate Neutral. 2020

<sup>13</sup> [https://icapcarbonaction.com/en/?option=com\\_etsmap&task=export&format=pdf&layout=list&systems%5B%5D=43](https://icapcarbonaction.com/en/?option=com_etsmap&task=export&format=pdf&layout=list&systems%5B%5D=43)

to EUR 14.1 billion, from EUR 5.5 billion in 2017.<sup>14</sup> The current requirement of earmarking 50 % of revenues for supporting climate investment should be maintained.

At the same time the social dimension of the possible extension of the ETS should be duly taken into account. The fight against climate change should disproportionately burden those in need. The possible ETS extension should be in line with the just transition principle of the European Green Deal. For this reason, the remaining ETS funds should be used for compensating poor households for increased energy costs, in particular in Member States where utility costs constitute relatively high shares in the monthly household incomes. This compensation should not create incentives for maintaining or even increasing energy consumption but only to save energy. Compensation mechanism should be transparent and easily understood, i.e. it should be directly linked to ETS revenues and not become part of national budgets.

- **Auctioning of allowances:** To establish a meaningful carbon price in road transport and buildings and to generate revenues of meaningful scale, auctioning should be the main mechanism for the allocation of allowances. As road transport and buildings are not at a high risk of carbon leakage – with a few exceptions –, auctioning should be the main allocation method from the start of the new emission trading scheme.
- **Maintaining Member States' ownership:** Because of very different national circumstances, Member States need to continue to play a key role in implementing new EU targets. They should have discretion in implementing national climate and energy policies. To ensure that all Member States contribute adequately to the EU's overall reduction efforts, legally binding targets for Member States will remain important. Taking into account national circumstances and a new target distribution formula<sup>15</sup>, new national targets and emission budgets will need to derive from the EU's new targets. New national targets are an essential element of an adequate EU framework for achieving climate neutrality by 2050 but even more so for the period until emission trading in road transport and building is fully operational.

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<sup>14</sup> <https://www.eea.europa.eu/themes/climate/trends-and-projections-in-europe/trends-and-projections-in-europe-2019/the-eu-emissions-trading-system>

<sup>15</sup> Preliminary Considerations for Establishing more Ambitious 2030 EU Climate Goals, <https://www.ecologic.eu/17810>. In addition to the considerations on a new target distribution formula presented in this paper, it should be considered to what extent revenues from an extended ETS should become part of this new distribution formula.