Powering the Green Deal through a robust ETS and effective carbon pricing

Eurelectric position paper

April 2020

Eurelectric represents the interests of the electricity industry in Europe. Our work covers all major issues affecting our sector. Our members represent the electricity industry in over 30 European countries.

We cover the entire industry from electricity generation and markets to distribution networks and customer issues. We also have affiliates active on several other continents and business associates from a wide variety of sectors with a direct interest in the electricity industry.

We stand for

The vision of the European power sector is to enable and sustain:
- A vibrant competitive European economy, reliably powered by clean, carbon-neutral energy
- A smart, energy efficient and truly sustainable society for all citizens of Europe

We are committed to lead a cost-effective energy transition by:

investing in clean power generation and transition-enabling solutions, to reduce emissions and actively pursue efforts to become carbon-neutral well before mid-century, taking into account different starting points and commercial availability of key transition technologies;

transforming the energy system to make it more responsive, resilient and efficient. This includes increased use of renewable energy, digitalisation, demand side response and reinforcement of grids so they can function as platforms and enablers for customers, cities and communities;

accelerating the energy transition in other economic sectors by offering competitive electricity as a transformation tool for transport, heating and industry;

embedding sustainability in all parts of our value chain and take measures to support the transformation of existing assets towards a zero carbon society;

innovating to discover the cutting-edge business models and develop the breakthrough technologies that are indispensable to allow our industry to lead this transition.

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Powering the Green Deal through a robust EU ETS and effective carbon pricing

A Eurelectric position paper April 2020

This document builds on previous work by Eurelectric on the key enablers for a successful Green Deal strategy as well as the commitment of the EU electricity industry to climate neutrality.

The European Green Deal and the European Climate Law should enable climate neutrality by 2050 and one of the main policy tools to achieve this is the EU Emissions Trading System (ETS). Eurelectric and its members have been continuous supporters[1] of a strong market-based EU ETS for delivering cost-effective GHG reductions across Europe. In view of that, this paper aims to outline the possible questions and key policy priorities, which should be further analysed in the forthcoming impact assessment by the European Commission.

KEY RECOMMENDATIONS

- Stemming from its existing commitment to climate neutrality, Eurelectric supports an EU ETS geared to reaching net zero in Europe by 2050 and an ambitious target for 2030. The Linear Reduction Factor (LRF) should be appropriately adjusted in the EU ETS Directive as soon as feasible after the adoption of a 2050 climate neutrality target. The adjustment of LRF should take into account both expected changes to the EU 2030 targets as well as consequences for the time after 2030 to reach carbon neutrality by 2050.
- All sectors of the economy need to contribute to making the EU a climate-neutral economy by 2050. Therefore, the European Commission needs to consider adjusting the burden-sharing between ETS and non-ETS sectors or the mitigation speed in the non-ETS sectors.
- The Market Stability Reserve review in 2021 has to take into account any changes to the EU level of ambition to 2030 and the impact of allowances in the aviation sector with the ultimate aim of maintaining market stability and meaningful ETS prices. The MSR intake rate should be kept at 24% after 2023 instead of reducing it to 12%, and the MSR thresholds should be updated to reflect an increasingly decarbonised economy.
- Proportionally to the new climate commitments, the ETS Directive should foster compensatory measures to mitigate associated compliance costs.
- In order to assess the effectiveness of carbon pricing in non-ETS sectors (through an ETS extension or other carbon pricing tools), upcoming Commission impact assessment needs to look at the number of emissions sources, respective abatement costs, effect on the overall cap and the existing national policies and taxes.
- Eurelectric believes that the Green Deal should promote mechanisms which could both make domestic industries more carbon efficient while at the same time encourage third parties to become more climate friendly in line with EU trade policy objectives.

[1] Eurelectric industry vision

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Making the EU ETS fit-for-purpose under the Green Deal

The European Green Deal should enable climate neutrality by 2050 and one of the main policy tools to achieve this is the EU Emissions Trading System (ETS).[2] Eurelectric and its members have been continuous supporters of a strong market-based EU ETS for delivering cost-effective GHG reductions across Europe. A well-functioning ETS system should deliver a carbon price signal to spur sustainable investments and enable Europe to meet climate neutrality most cost-effectively.

The European power sector sees electricity not only as the preferred energy vector going forward but also as the key to decarbonise other sectors. This is why the EU ETS must be further improved and strengthened while ensuring adequate burden-sharing among all sectors for Europe to embark on a pathway towards a net zero trajectory in 2050. In addition, this would entail a meaningful carbon pricing in the non-ETS sectors. Different starting points of Member States need to be taken under consideration in the spirit of solidarity. Future ETS reform should not only focus on increasing the climate ambition but also on delivering the necessary emission reductions in a cost-efficient and predictable manner without any unnecessary increase of the overall cost of transformation.

As concluded in a Eurelectric study,[3] achieving EU's decarbonisation objectives would require addressing both long- and short-term supply of allowances. **Our industry views the Linear Reduction Factor (LRF) and the Market Stability Reserve (MSR) as the two main policy tools to deliver a robust ETS system. This paper outlines the possible questions and key policy priorities, which should be analysed in the forthcoming Commission impact assessment in terms of impact[4], scope, effectiveness and timing.**

In particular, the European Commission needs to look at the following mechanisms to ensure the effective implementation of higher climate ambition and make the EU ETS fit for the next decade:

Adapting the EU ETS cap

In the context of an increased 2030 EU GHG target and a Paris-proof European Green Deal, the current EU ETS cap trajectory should be carefully revisited. Adopting a more ambitious target is feasible through an increase of the Linear Reduction Factor (LRF):

Option: Applying a higher LRF to the EU ETS

- **Impact**: An increase of the LRF would propel achieving higher GHG reduction targets by reducing the total quantity of allowances between 2021 and 2030. The level of the LRF will be directly dependent on the EU ETS target for 2030, based on the effort reduction burden sharing between ETS and non-ETS sectors. Such adjustment would suggest the latter to increase their efforts and could necessitate the review of the Effort Sharing Regulation (ESR) targets.
- **Scope**: Targets of 50% or 55% would entail different reduction factors, and their implementation and timing will be essential for determining these calculations, which are now based on the existing burden-sharing between the ETS and non-ETS sectors. The scope of the EU ETS and possible inclusions of non-ETS sectors under the cap would affect the efforts needed and in turn the required LRF values. In case the EU ETS cap is rebased to a lower starting point, a lower LRF would be required to reach net zero.

[2] Powering the Green Deal, Eurelectric
[3] Options to strengthen the EU ETS, ICIS commissioned by Eurelectric
[4] Including the effects of the reform on the funding mechanisms

- **Timing:** Two recent analyses[5][6] have projected plausible scenarios for the LRF in view of a 2030 EU GHG target increase, and a summary can be seen in Annex I.[7] We observe that the later the LRF is adjusted, the higher it needs to be set in order to reach the same 2030 GHG emissions level and in a much shorter timeframe. If the LRF is set too steep for the post 2030 period, carbon neutrality in the EU-ETS may be achieved earlier than 2050. However, it is crucial that reduction pathways are in line with the cost-effective and technically feasible decarbonisation paths of the EU long-term strategy.
- **Effectiveness**: An increased LRF to 2050 could provide a more clear and consistent signal to operators, which could be considered more stable being consistent with long term EU climate objective.

Recommendations:

- **Stemming from its existing commitment to climate neutrality, Eurelectric supports an EU ETS geared to reaching net zero in Europe by 2050. The LRF should be appropriately adjusted in the EU ETS Directive as soon as feasible after the adoption of a 2050 climate neutrality target.**
- **The adjustment of the LRF should take into account both expected changes to the EU 2030 targets as well as consequences for the time after 2030 to reach carbon neutrality by 2050**
- **All sectors of the economy need to contribute to making the EU a climate-neutral economy by 2050. Therefore, the European Commission needs to consider adjusting the burden-sharing between ETS and non-ETS sectors.**

Enhancing market resilience

The Market Stability Reserve (MSR) became operational in 2019 with the objective to ensure promptly reaction to past and future sources of market imbalances and stabilise ETS prices.[8] This entails reducing historical surplus of emission allowances as well as potential surpluses (e.g. due to achievement of existing 2020 targets or variation induced by policies, such as coal phase outs).

Updating the design parameters of the MSR which are subject to the upcoming review will be essential to respond to short- and medium-term excess supply in the ETS, thus fixing market imbalances. A potential concern is, if there is a large volume of coal plant closures in a single year, as seen with emissions reductions in 2019, whether the steep change in demand for allowances could be too large for the MSR to manage in the short-term. Voluntary cancellation of allowances by Member States corresponding the coal plant closures could provide a solution to this.

Annually decreasing hedging requirements due to reducing electricity emissions have to be integrated in the calculation recalibrating the MSR thresholds. Also in view of the MSR functioning, the amount of EUA (but not EUAA) used for compliance purposes in the aviation sector needs to be included in the calculation formula for the total number of allowances in circulation (TNAC) in the fourth trading period.

[5] What a 55% 2030 emissions reduction target means for the EU ETS, ICIS
[6] The role of the EU ETS in increasing EU climate ambition, Sitra
[7] Interactions with other policy elements and ETS scope extension are not taken into account and will likely affect results
[8] Decision (EU) 2015/1814

Option 1: Updating the MSR

The MSR will be important in ensuring a stable ETS price trajectory over the next decade. The parameters presented below are complementary recommendations in accordance with the planned MSR review and address the design parameters of the MSR in the short- to medium-term.

Parameter A: Adjusting the MSR intake rate

- **Impact**: Maintaining or increasing the current MSR intake rate post-2023 would increase the inter-temporal efficiency of the systems. Reductions are triggered on an annual basis adjusted to demand implying that the auction supply is cut short, which would also have an impact on carbon prices.
- **Scope**: Several adjustment opportunities are available: (a) the MSR intake rate could be maintained at 24% after 2023 instead of reducing it to 12%; (b) the MSR intake rate could be tiered, increasing with the level of surplus, to avoid step changes in the application of the MSR;
- **Timing**: MSR review in line with the presentation of the June 2021 policy package
- **Effectiveness**: Increasing market scarcity through a reduction of the supply of allowances would create an incentive to reduce emissions.

Parameter B: Adjusting the MSR thresholds

- **Impact**: Lowering the applicable thresholds and providing resilience in relation to supply-demand imbalances.
- **Scope**: Reflect the changing hedging requirements of a decarbonising electricity sector by reducing the thresholds from 400-833 M. To reflect changes in the future the thresholds could be adjusted automatically by linking them to the LRF. Having these pegged to the LRF would avoid periodic adjustments and improve market operation.
- **Timing**: MSR review in line with the presentation of the June 2021 policy package
- **Effectiveness**: The threshold adjustment is key to triggering the anticipatory character and operation of the MSR. As the electricity sector becomes increasingly decarbonised, its hedging requirements will be reduced and the MSR thresholds should be lowered in line with gradually declining hedged holdings. This could be done by either placing the same band on a lower level or by changing the band width. The thresholds (400 and 833 Mt/a) in the MSR hedging band will have a more significant influence than the intake rate effectiveness of the MSR and these should be focus for further review.

Parameter C: Improve the functioning of the MSR with respect to aviation

- **Impact**: Aviation operators are allowed to use EUA from the stationary ETS for compliance purposes. Due to a design failure, the MSR does not take into consideration aviation. Figure 1 illustrates the impact of EUAs leaking from the stationary ETS to the Aviation ETS. Over the course of 2021 to 2035 the MSR is not able to work properly and is ’flying blind’ due to the wrong scarcity signals of the TNAC. The development would be even more detrimental if from 2023 onwards the temporary derogation from scope were to end for extra-EU-flights.

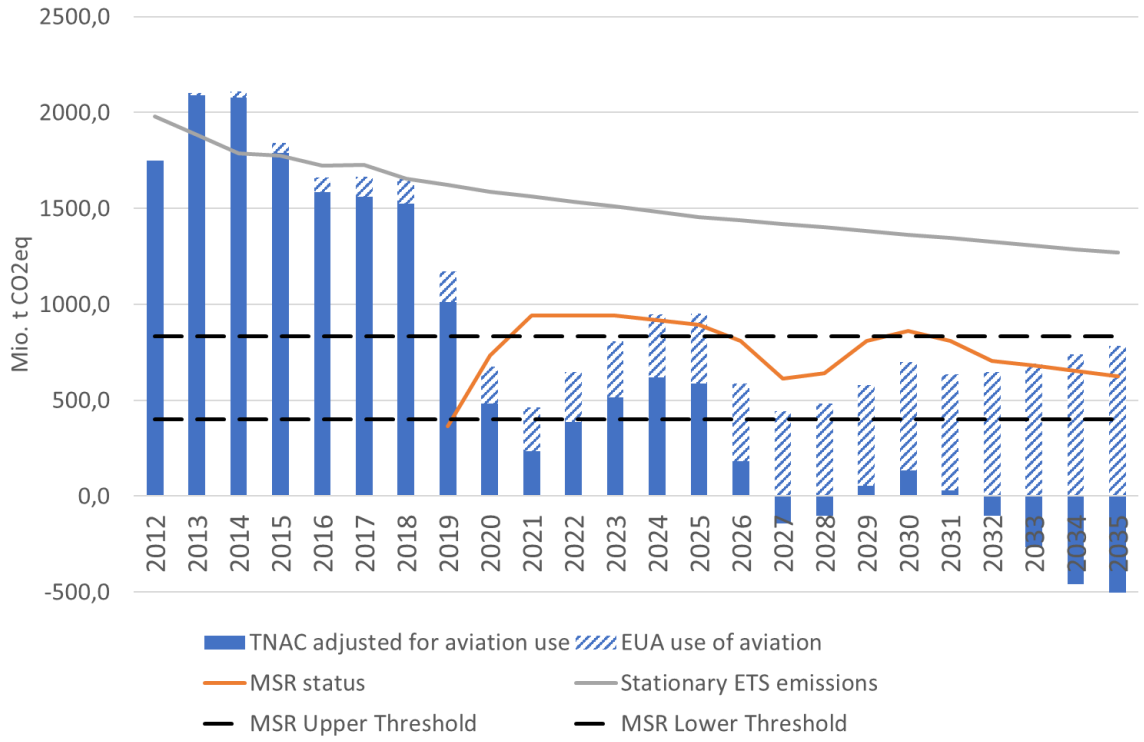

Figure 1. The development of TNAC, emission cap and verified emissions for the years 2012 – 2018 is taken from the respective publications of the EU Commission, the EEA data viewer and the European Aviation Environmental Report 2019. The emission cap for the fourth trading period and beyond is based on the applicable LRF of 2,2% and the verified emissions 2020 – 2035 are equal to the EEA/WAM projection of member states (published in November 2019 by the EEA) while assuming a linear reduction path between the projected years 2020, 2025, 2030, and 2035.

- **Scope**: As foreseen in the MSR Decision, aviation allowances and verified aviation emissions are not considered in the context of calculating the TNAC. The annual outflow of EUA to the aviation sector amounts currently to 20-30 million EUA per year and may well increase over the course of the fourth trading period.
- **Timing**: MSR review in line with the presentation of the June 2021 policy package
- **Effectiveness**: Improves the functioning of the MSR. If EUA outflows to the aviation sector for compliance purposes are not taken into account for the fourth and subsequent periods, the MSR cannot work properly while assuming higher liquidity in the market than what is actually available.

Option 2: Auction reserve price

- **Impact**: Establish an auction reserve price of CO2 to increase market resilience and investor security. The minimum price could remain stable or increase over time.
- **Scope**: Allowances that are not sold when the reserve price is triggered could be cancelled or transferred to the MSR. The measure could be introduced as an amendment to Regulation 1031/2010 (Auctioning Regulation). The system is already known in the Regional Greenhouse Gas Initiative in the US and similar systems exist in California, Quebec, Ontario and the UK.[9]
- **Timing**: MSR review in line with the presentation of the June 2021 policy package.
- **Effectiveness**: Can substantially increase investor certainty and better align for overlapping policies, but can also have a detrimental effect on emission reduction costs and inherent flexibility

[9] The legal and economic case for an Auction Reserve Price in the EU ETS, cesifo working papers

in case of reduced demand for EUAs. The practicalities of this could be challenging given the lack of centralised auctioning in Europe.

Recommendations:

- **To avoid a cliff edge after the MSR strengthening comes to an end in 2023, the MSR intake rate should be maintained at 24% to avoid year-to-year step changes in the operation of the MSR.**
- **The MSR hedging thresholds should be updated to reflect lower demand in an increasingly decarbonised economy.**
- **To account for national decisions on decommissioning coal-fired power plants Member States should withdraw a corresponding amount of ETS allowances, e.g. via voluntary EUA cancellations.**
- **The amount of EUA (but not EUAA) used for compliance purposes in the aviation sector needs to be included in the calculation formula for the TNAC in the fourth trading period.**

Impact on the funding mechanisms

The proposed measures could lead to an increase in the carbon price and associated compliance costs for the electricity sector before 2030 as a result of additional operational costs associated with the purchase of ETS allowances on the market. At the same time, Member States with high carbon intensity and low GDP/capita levels would also face significantly higher investment needs to comply with the new European Green Deal commitments.

Solutions to mitigate these increased costs include using the possibly increased income from auctioning and proportionally increasing compensation, which could be done in a following manner:

- **Increasing the number of allowances dedicated to the Modernisation Fund.** Additional carbon cost, which will be estimated on the basis of the Commission's impact assessment regarding the EU ETS revision options, should be proportionally covered in an additional quantity of the EUAs dedicated to the Modernisation Fund. Those allowances should be earmarked specifically for the energy mix transformation;
- **Increasing the share of allowances dedicated to the "solidarity pool".** The Commission impact assessment should also consider increasing the percentage under the so-called "solidarity pool" of the total quantity of allowances with a purpose to proportionally compensate for the overall decrease of the total number of allowances dedicated to the national pool of the most vulnerable Member States and incentivise investment in low-carbon power generation;
- **Earmarking a certain percentage of the EU ETS revenues solely for the transformation of the energy generation.** The ETS Directive should put in place an obligatory share of carbon revenues to be dedicated to the energy transformation in eligible Member States benefitting from the Modernisation Fund and solidarity pool. Otherwise, carbon revenues will be distributed among other sectors and social needs and would not address the primary aim of the European Green Deal, which is to transform the European economy in the net-zero emissions direction.

- The list of Member States eligible for these compensation mechanisms should also **better reflect the actual economic situation of the Member States**, for example by amending the applicable reference year to a more recent year.
- Further technological and market development are required to achieve EU's climate goals in a cost-effective manner. The role of the Innovation Fund is key in enabling this and the fund should focus on supporting technologies which have the potential to become competitive and promote the EU industry in the global arena.

Funding mechanisms for climate and transition purposes related to the ETS aim at helping lower-income Member States to finance their decarbonisation efforts. As the Modernisation Fund is made up of 2% of the cap, its total volume would also decrease if the cap is tightened unless additional actions are taken. Changes of the cap will reduce volumes and prices will be affected by a tighter cap. Similarly, the maximum Article 10c derogation volumes as well as the size of the solidarity provision would also be affected as they are determined by a percentage of the auction volumes of the eligible Member States.

It should be noted that, these measures should not contribute to more over-supply and weakening of the EU ETS price signal.[10]

Recommendations:

- **Proportionally to the new commitments and additional carbon cost, the ETS Directive review in 2021 has to increase the number of allowances dedicated to the Modernisation Fund and the share of allowances dedicated to the "solidarity pool".**
- **It should be directly stated in the ETS Directive that the certain percentage of the national carbon revenues should be earmarked solely for the transformation of the energy generation in Member States concerned.**

Carbon pricing in the non-ETS sectors

All sectors need to contribute to making the EU a climate-neutral economy by 2050. Progress in emission reduction has been slower for the ESR than for the ETS, and they have their own challenges. **In order to assess the effects derived from an ETS scope extension, the debate needs to look at the number of emissions sources, respective abatement costs and barriers, effect on the overall cap and the existing national policies and taxes.**[11] In principle, expanding the scope of the EU ETS to other sectors could be an option but could also result in creating a parallel ETS system. **However, not all sectors will be suited for the same carbon pricing instrument and the most appropriate solution should be implemented for each sector.** What is important for the efficiency of EU climate policy overall is that all sectors are subject to a meaningful CO2 price signal.

The proposal on extending the EU ETS scope, as envisaged in the European Green Deal, is certainly a welcome move to cost-effectively drive emissions in these sectors and avoid cross-border distortions. Any extension will need full assessment as to whether the stated objectives are met without any adverse impact on the EU ETS or prospects for future ETS linking. **In this sense, sectors which are not exposed to any CO2 price (e.g. maritime) or an insufficient CO2 price (e.g. individual heating, in**

[10] EU ETS Reform – Eurelectric recommendations on proposals to strengthen the EU ETS, Eurelectric

[11] With attention not to penalise Member States that have already put a high price on carbon in sectors such as heating and road transport thanks to efficient taxation or other measures.

some Member States) should be addressed either by extending the ETS scope or through other carbon pricing measures, using the most efficient tool for each sector.

Heating in buildings

- **Impact**: The inclusion of heating in the EU ETS would have effects on the overall demand, the EUA prices as well as fiscal aspects on a national level. Removing or lowering excise duties for heating fuels in Member States where these are high could threaten government revenue but at the same time could be substituted through revenues from carbon pricing[12], and the revenues could be used by governments to finance measures to lower emissions in buildings. However, if ETS revenues replace revenues from national taxes, they will generate additional benefits only if the ETS price is higher than the national equivalent. Social acceptance of the related impacts should be taken into account in order to guarantee the effectiveness of such policies.
- **Scope**: While the majority of heat is still produced from fossil fuels (coal and gas), the EU ETS covers only combustion installations with thermal rated input exceeding 20MW, which accounts for the majority of combined heat and power plants production and district heating generation. Extension of the EU ETS would entail single boilers and heating of individual residential, service sector and industrial buildings with fossil fuels, which under the current set up fall outside the scope**.** The direct combustion-related emissions from residential and commercial heating are estimated to be 630 Mt CO2e in 2017[13], which is about three times more than the largest extension of ETS in the case of aviation. On top of this, further emissions of small combustion units in the energy and manufacturing sector have to be added (~ 100 Mt CO2e). Due to the large number of installations, a straightforward inclusion of individual boilers and CHP units is not likely. **Several options are possible: a) ETS inclusion of medium-sized combustion plants (1-20 MW) to cover heat providers, b) Upstream - ETS inclusion of fuel producers and importers, c) downstream - ETS addressing fuel suppliers supplying fossil fuels to final consumers.** The consideration of carbon pricing in the form of a carbon tax should also be part of the impact assessment and evaluated in terms of effectiveness.
- **Timing**: No specific timetable is foreseen. Possible actions as part of the June 2021 set of proposals, as planned in the Green Deal communication and Climate Law.
- **Effectiveness**: Effectiveness depends on the difference between the ETS price compared to other taxes as well as where the obligations are placed. By using an upstream approach and setting the ETS compliance obligation to fuel suppliers for heating, the extension to decentralised heating and cooling could provide efficient emissions reduction in countries where no carbon pricing tools are already in place. Such process would however entail several years before implemented, deploying an effective monitoring, reporting and verification process. In the meantime, energy efficiency measures should be promoted.

[12] In 2018 a total of about 173 million EUA and EUAA of the third trading period with a total value of over € 2.58 billion were auctioned at the EEX for Germany. This results in a volume-weighted average price per allowance of € 14.92. (excluding allowances from aviation)

[13] European Union GHG inventory 2019, European Environmental Agency

Road transport

- **Impact:** Road transport is already covered by a policy mechanism to reduce carbon emissions in the form of emission standards for both light- and heavy-duty vehicles. Due to existing vehicle emissions legislation transport is also not exposed to carbon leakage. The inclusion of road transport would be expected to impact fuel prices. Still, Member States can neutralise the effect of a carbon price by decreasing national general fuel taxes and levies. In that case, fuel prices could reflect costs of emissions without additional burden for consumers. Moreover, due to provisions within the existing CO2 standards, we see increased number of electric vehicles which are being 'indirectly' brought under the ETS, as electricity is covered by the system.
- **Scope:** Road transport currently regulated by EU legislation includes: passenger cars, light commercial vehicles and heavy-duty vehicles. Binding targets for emission reductions already exist in this sector for the 2030 horizon and inclusion of road transport has to be considered only as **complementary** to the existing CO2 laws, like in California. The consideration of carbon pricing in the form of a carbon tax should also be part of the impact assessment and evaluated in terms of effectiveness.
- **Timing:** No plans in the short- to medium-term. Possible actions as part of the June 2021 set of proposals, as planned in the Green Deal communication and Climate Law.
- **Effectiveness:** A study by the Oeko-Institut[14] models that an ETS price of 25 EUR would, through its 0.06 EUR/l fuel price increase, reduce CO2 from transport by around 3%. Other studies[15][16] similarly estimate what EUA prices are necessary to achieve the same incentive effect as with the current vehicle emission standards (average fleet targets of 95gCO2/km in 2021), and the findings of 370-440 EUR / tonne of CO2 are far above what is feasible in an emission trading scheme. In this sense, inclusion of road transport within the scope of ETS offers very low emissions abatement potential compared to vehicle emission standards and will shift the reduction efforts to the other sectors. From a market operation perspective, this could have negative impacts on liquidity in the EU ETS with additional transactional costs for power and industry. An approach to carbon taxes on road transport fuels may be revision of the Energy Taxation Directive, or coordination at a national level. In all cases, it should be ensured that the adequate measures are put in place to help households reducing their emissions related to fuel consumption and road transport. An increase of carbon pricing through an ETS extension or a national carbon pricing should not be compensated by the reduction of other fuel levies, otherwise there would be no impact on the end-user price and thus no impact on emissions reduction.

Maritime transport

- **Impact**: Largely in the aftermath of EU decision making during the revision stage of the ETS in 2017,[17] international shipping emissions are currently only covered by the International Maritime Organisation (IMO) with a GHG reduction target of at least 50% by 2050 compared

[14] Policy mix in the transport sector: What role can the EU ETS play for road transport?, Oeko-Institut
[15] The impact of including the road transport sector in the EU ETS, Cambridge Econometrics
[16] Road transport in the EU ETS: An engineering perspective, International Council on Clean Transportation
[17] MEPs back plans to cut carbon emission allowances and fund low-carbon innovation, European Parliament

to 2008.[18] However, the maritime sector remains outside the Effort Sharing reduction targets or any other binding targets on European level.

- **Scope**: An inclusion of the maritime sector into the ETS will require a careful adjustment of the ETS cap, depending on whether the EU looks at intra-European maritime shipping or internationally. EU international shipping would possibly require a similar system to aviation in terms of emission allowances. This could also end up being projected at international fora (e.g. CORSIA-like project at IMO). Short sea shipping and inland waterways offer greater potential for electrification or electricity-based fuels.
- **Timing**: In its Long Term Strategy, the European Commission has modelled three scenarios for EU international shipping delivering 46 to 87% emission reductions in 2050 compared to 2005 levels. None of these scenarios achieves any reductions prior 2030.
- **Effectiveness**: Previous work by the Commission has concluded[19] that ETS inclusion of maritime transport would be an effective measure to reduce emissions in the shipping sector. Like aviation, given the cross border nature of maritime transport and its sensitivity to price signals, the inclusion of the maritime sector into the EU ETS could lead to cost-effective emissions reduction.

Recommendations:

- **In order to assess the effectiveness of an ETS scope extension, an impact assessment needs to look at the number of emissions sources, respective abatement costs, effect on the overall cap and the existing national policies and taxes.**
- **Sectors which are not exposed to any carbon price (e.g. maritime) or an insufficient carbon price (e.g. individual heating, in some Member States) should be addressed either by extending the ETS scope or by carbon pricing measures, using the most efficient tool for each sector.**
- **Short sea shipping and inland waterways offer greater potential for electrification or electricity-based fuels. Such sectors with high electrification potential are gradually indirectly included in the ETS. Direct inclusion could be an alternative and needs to be assessed in more detail.**
- **Analyse the introduction of measures to address potential distributional effects of carbon pricing among the different sectors and consumers.**

Other issues to be considered

Voluntary cancellation of allowances by Member States

Responding to coal plant closure could be done through the cancellation of EUA surplus associated with these closures that is not moved into the MSR or via unilateral cancellations. This would maintain scarcity in the ETS by removing oversupply on a permanent basis. Member States already have powers to voluntarily implement cancellation, as per Article 12(4) of the revised EU ETS Directive. Further guidance on this provision has already been provided by the European Commission in the review of the Auctioning Regulation.[20] Voluntary cancellations should be promoted in parallel with the modernisation and decarbonisation of the energy and industrial sectors. This process should also be

[18] UN body adopts climate change strategy for shipping, International Maritime Organisation
[19] Support for the impact assessment of a proposal to address maritime transport greenhouse gas emissions, Ricardo-AEA
[20] Commission Delegated Regulation (EU) 2019/1868, Article 25

accompanied by transparent quantification of gross and net emission reductions, triggered by closing down coal-fired power stations.

Carbon Border Adjustment[21]

The path to reaching climate neutrality in 2050 requires a toolbox of policy solutions, notably in view of the risks for carbon leakage. The power sector itself is already exposed to fossil fuel-based electricity imports along the EU external borders to Bulgaria, Croatia, Estonia, Finland, Greece, Latvia, Lithuania, Poland and Spain. Other producers covered by the EU ETS as well as ones outside its scope could be negatively impacted in terms of competitiveness.

As Europe takes global leadership in addressing climate change, European industry must be able to compete while knowing that investing in decarbonisation efforts is a no-regret decision. The competitiveness of European industry will continue to need to be considered, and a debate over carbon border adjustment will be required also in line with EU trade policy objectives. The revenue from the mechanism should be steered towards low carbon activities in the EU countries.

In this context, Eurelectric believes that – based on the Green Deal – the EU should push for ambitious international climate protection targets in addition to promoting mechanisms which could make European industries more carbon efficient but at the same time encourage third countries to become more climate friendly. In addition, the EU should be aware that third countries with more stringent carbon pricing should be able to introduce similar adjustments under the same principles unless the EU matches their climate ambition.

Europe should put forward complementary policies and tools with the ultimate goal of developing a more global carbon market, rendering it unnecessary to rely on applying potentially perilous unilateral carbon border adjustments in the long term.

Recommendations:

- **Eurelectric believes that the Green Deal should promote mechanisms which could both make domestic industries more carbon efficient while at the same time encourage third parties to become more climate friendly in line with EU trade policy objectives.**
- **Europe should put forward complementary policies and tools with the ultimate goal of developing a more global carbon market.**
- **An active European role in climate diplomacy will be essential to engage the international community with ambitious climate policy frameworks.**

[21] Carbon Border Adjustment: opportunities to complement efforts under the Green Deal, Eurelectric

Annex I:

Timing the Linear Reduction Factor (LRF)						
2030 EU GHG target (% vs 1990)	**LRF 2021-2025**	**LRF 2026-2030**	**2030 ETS target (vs 2005)**	**Carbon budget 2021-2030**	**LRF 2031-2050 (to reach net-zero in 2050)**	**Year to reach net-zero by continuation of LRF 2026-2030**
40% target, state of play	2.2%	2.2%	-43%	15 504	3.0%	2058
50% target, start 2021 (ICIS)	3.2%	3.2%	-52%	14 294	2.5%	2046
50% target, start 2026 (ICIS)	2.2%	4.2%	-52%	14 844	2.5%	2042
55% target, start 2021 (ICIS)	3.7%	3.7%	-56%	13 689	2.3%	2042
55% target, start 2026 (ICIS)	2.2%	5.2%	-56%	14 514	2.3%	2039
55% target, start 2021 (Sitra)	4.1%	4.1%	-60%	13 193	2.1%	2040
55% target + rebased cap, start 2021 (Sitra)	3.6%	3.6 %	-63%	12 038	2.1%	2041
55% target, start 2026 (Sitra)	2.2%	6.0%	-60%	14 244	2.1%	2037
55% target + rebased cap, start 2026 (Sitra)	2.2%	5.1%	-65%	12 506	2.1%	2038
2050 net-zero target, start 2026	2.2%	2.9%	-45%	15 286	2.9%	2050

ICIS/Sitra studies' timing for increasing Linear Reduction Factor for the fourth trading period and prospects post-2030 (rounded by decimal for clarity and consistency)

Eurelectric pursues in all its activities the application of the following sustainable development values:

Economic Development

- Growth, added-value, efficiency

Environmental Leadership

- Commitment, innovation, pro-activeness

Social Responsibility

- Transparency, ethics, accountability

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