Overlapping Policies with the EU ETS

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Executive Summary

- The EU ETS should remain the central pillar for reducing GHG emissions cost-effectively
- The EU ETS ensures:
  - The most cost-effective abatement options are developed
  - It provides flexibility to businesses about investment timing
  - It guarantees an environmental objective
  - As an EU-wide system it minimises intra-EU distortions and enables linking with other jurisdictions
  - It allows price discovery through market forces
- If other policies are maintained, a minimum requirement should be to ensure greater transparency and comparability with the EU ETS.
- Careful impact assessment prior to implementation and regular reviews thereafter should assess the extent to which these other policies achieve the goal of GHG emission reductions and at what cost.
- Estimates show the impact of policies such as the Energy Efficiency Directive and the Renewable Energy Directive will lead to a substantial reduction in demand for ETS allowances until 2020. Additional policies such as direct regulation or national policies will also overlap with the EU ETS and cause reduced demand for ETS allowances. The aggregated impacts in 2020 could rise to over 1 Billion tonne of CO_2
- Such policies need to be evaluated *ex-ante* in terms of:
  - Is the policy a market instrument?
  - Are the costs of the policy transparent?
  - Are the impacts of the policy transparent in terms of emission reductions?

  as well as *ex-post*, according to the following indicators:
  - Is the most-efficient abatement option being developed?
  - Are these additional policies being used to meet a specific environmental outcome that conflicts with the EU ETS cap?
  - What are the consequences of these other policies on the EU's internal energy market?
- **IETA's main recommendation is to avoid overlap as a matter of principle as it inhibits the market effectiveness of the EU ETS**
- Other policy coordination measures could be implemented to ensure that certain inefficient effects on the EU ETS are predictable and minimised:
  - Careful reassessment of the EU ETS cap at the start of each Phase
  - Full transparency
  - Gradual impact of overlapping policies
  - Clear governance
  - Exclusion of traded sectors from low-carbon overlapping policies whose obligations go beyond their ETS obligations
  - Market Stability Reserve

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Section 1: Cost-effectiveness of emissions trading

IETA supports the ETS as the cornerstone of the EU's climate policy for the following reasons:

- It ensures the most cost-effective abatement options are developed as the instrument does not pick and choose the technologies to develop but lets the market decide which options are developed first.
- It provides flexibility to businesses about investment timing.
- It guarantees that the environmental objective (the cap) will be met or exceeded.
- It is a European-wide system that minimises intra-EU competitiveness distortions that national policies cause. It is an instrument that enables linking with other jurisdictions, which can help avoid international competitive distortions.
- It allows price discovery through market forces.

For all these reasons, the EU ETS is the instrument of choice of EU regulators and businesses to reduce GHG emissions.

To ensure efficient regulation, it is important to avoid policies that conflict with each other's objectives. **The EU ETS should remain the central pillar for reducing GHG emissions cost-effectively.** This will require prioritising the most efficient mechanism of the EU ETS over other policy mechanisms impacting EU ETS sectors' GHG emissions directly or indirectly.

We are aware that policies other than the EU ETS will be needed in order to achieve cost-effectively goals other than GHG emission reductions, such as energy security or reducing local pollutants for instance. Nevertheless it is a minimum requirement to ensure greater transparency and comparability of such overlapping policies with the EU ETS. Prior to their implementation, and regularly thereafter, these additional policies are to be reviewed to consider to what extent they also achieve the goal of GHG emission reductions and at what cost. Some policies, particularly national policies, are put in place with the sole goal of reducing GHG emissions, directly duplicating the EU ETS and leading to more costly emission reductions.

Section 2: Which policies overlap with the EU ETS and what are their impacts?

This analysis below identifies some of the various policies that can be identified as overlapping with the EU ETS, as well as their estimated impacts in terms of emission reductions and costs. This list of policies will lead to emission savings that are either already in place or being considered by policy-makers at EU or national level.

Why is such an evaluation important?

The multiple policies that overlap with the EU ETS highlight a need for careful analysis about their impact on the system, in terms of the additional emission reductions they create, and in terms of costs for achieving such reductions compared to what would have been the case with the EU ETS only. **Our initial analysis shows that the impact of the Energy Efficiency Directive and Renewable Energy Directive alone will lead to an *additional* reduction in demand for ETS allowances of more than 700 million tonnes of CO2 by 2020[1], which has a significant impact on the supply and demand balance in the EU ETS and the carbon price.**

Greater transparency is needed on whether such policies turn the EU ETS into a residual policy instrument as carbon savings would be achieved as a consequence of reaching the other policy objectives. The purpose of this paper is not to oppose such policies but to ensure a strategy is put in place at the

[1] To put this figure in context, this amount is close to the backloaded volume of 900 million allowances.

European level to address the potential overlap, which can unintentionally undermine the EU ETS, and to avoid a more costly decarbonisation pathway than would otherwise be the case with the EU ETS.

The various policies analysed below have been classified in the following categories: (i) policies that majorly overlap with the EU ETS; (ii) other policies overlapping with the EU ETS; (iii) national policies that overlap with the EU ETS

2.1. Policies that majorly overlap with the EU ETS

Policies that significantly overlap with the EU ETS typically occur at the EU level where the scale is such that interference with carbon market supply and demand balance can become material.

2.1.1. Energy Efficiency Directive (EED)

Amongst its other objectives, the EED impacts on emissions in the following way:

It encourages new energy savings of 1,5% of the annual energy sales to final customers, which is to be achieved every year from 2014 to 2020 (this means lower energy consumption, lower production and therefore lower emission volumes).

The 3% annual improvement target for energy efficiency in public buildings is also a driver for additional emission reductions.

By promoting efficiency in heating and cooling, Member States are expected to carry out an assessment of the potential for High Efficient Generation (HEC) and to conduct a Cost-Benefit Analysis (CBA) for new thermal power plants to identify the most resource- and cost-efficient solutions for meeting their heating & cooling needs.

Energy Efficiency Audits are required for compliance. These are based on baseline energy use by companies rather than installations and require time-consuming auditing.

Overall, the EED should ensure that the 2020 20% energy efficiency goal is met. Therefore to estimate the impact on emission reductions from the Energy Efficiency Directive in 2020, we make the following assumption: the ETS cap designed at the time of the 2020 Climate Energy Package embeds only a 10 % energy efficiency target to be achieved by 2020[2] (representing half of the final 20% objective). **This means that half of the energy savings driven by the 20% target and the ensuing energy efficiency policies implemented from 2009 onwards may lead to duplication of the intended effects from the EU ETS[3].**

The cumulative estimate of energy savings amounts to 707,600 ktoe. This is calculated by comparing a scenario without an energy efficiency target with a scenario of a 20% energy efficiency target fully achieved in 2020 [4]. 20% of those savings refer to savings occurred in the electricity sector[5]. Only 50% of the savings driven by energy efficiency policies and which occurred in the power sector were considered in the ETS cap. The other 50%, amounting to 70,700 ktoe, will have led to overlapping effects with the EU

[2] The assumption is taken from the EC Impact Assessment on the 2020 Climate Energy package: "For final consumers increases in unit electricity prices are partially compensated by overall increased energy efficiency, which in the above policy scenarios is resulting in a reduction of electricity consumption of around 10%".

[3] We recognise however that not all energy efficiency is due to EU energy efficiency policies as industry becomes more efficient to save energy costs.

[4] In order to incorporate the effects of the financial crisis we considered the EU total energy consumption (reference scenario) reported in Primes 2009 (diverging from the 2007 baseline only due to the "Crisis effect") and we sum-up the yearly difference between the 2009 reference scenario (without the EE target) and the 2013 EU 28 reference scenario embedding the 20% EE target by 2020 in order to estimate Energy savings due to EE policies. See EU Energy, Transport and GHG Emissions Trends to 2050 Primes 2013 EU 28 reference scenario (page 86) and EU Energy, Transport and GHG Emissions Trends to 2050 Primes 2009 (page 124).

[5] Electricity represents approximately 20% of final energy demand

ETS. This equates to approximately 515 Mt C02[6]. Even limiting our analysis to power sector related impacts[7], **the unexpected impact from the Energy Efficiency Directive in EU 28 between 2008 and 2020 may well lead to an EUA surplus of approximately 515 MtCO2.**

2.1.2. Renewable Energy Directive (RED)

The Renewable Energy Directive has set a binding target of 20% of the overall energy consumption to come from renewable sources (RES) by 2020. For the electricity sector, the share of RES should reach 34% by 2020.

The effort to increase the share of RES will continue also in the following decade. Last year's conclusions from the European Council set a binding EU target of a 27% share of RES from the overall energy consumption by 2030, which could imply a 47% share of RES in the electricity sector. However Member States have so far refused to agree national RES targets being imposed by European decision-makers.

The Energy Union statement underlines the need for RES support because of the need for capital-intensive investments. The market is not expected to deliver such investments in the short-medium term, as they are not cost effective in their own right. Therefore RES support in certain Member States is expected to continue into the next decade. Thus, the overlap between the EU ETS and the RES support tools is expected to continue in the future, with likely consequences in terms of duplicated impacts and thus unnecessarily higher costs.

The growth of renewable energy in line with the 2030 ambition is likely to bring additional emission savings of about 2,200 Mt[8] between 2021 and 2030. However, these emission reductions would be achieved at a higher cost than if they had occurred without support systems and if they had been driven by the EU ETS alone. Various studies[9] make this case. In Germany for instance, emission reductions from the development of wind energy occurred with an implicit carbon price that was much higher than the existing carbon price ranging from €56.6/tCO2 to €168.0/tCO2 between 2007-2010. Similar examples exist in other Member States, where the cost of incentive systems for renewable energy far exceeds what the cost of equivalent reductions would have been had carbon pricing been the driver for renewables deployment [10]. Moreover, the emission reductions that are triggered by RES support will impact the EU ETS in terms of reduced demand for allowances.

To calculate the impact on emission reductions from renewable sources in 2020, the following assumption is made: **the 20% RES target on final consumption is already embedded in the original 2020 cap definition of the EU ETS**. The overachievement of the RES target between 2008 and 2020 led to approximately 300 TWh of RES generation not considered in the ETS cap design[11]. This extra RES generation multiplied with the average carbon intensity factor of conventional generation at the EU level (0,626 tCO2/MWh) provides the amount of extra CO2 emission reductions driven by RES. **The renewable generation in the EU 28 between 2008 and 2020 is likely to have led to a reduction in EUA demand of approximately 210 MtCO2**.

2.1.3. IETA's reflections on the impact of renewable energy support schemes and the Energy Efficiency Directive

[6] The C02 equivalent is achieved by converting ktoe in MWh (1ktoe=11630 MWh) and MWh in corresponding avoided MtCO2 (with the average carbon intensity factor of conventional generation at EU level of 0,626 tCO2/MWh in accordance with Enerdata (2014 data)). 70,767 ktoe of energy savings causing overlap with the EU ETS is equivalent to 823,014,610 MWh of "avoided" power generation, which corresponds to 515 MtCO2 overlap driven by Energy Efficiency on the period 2008-2020.

[7] Assessing non-power sector impacts becomes more complicated and would require possibly controversial assumptions

[8] This figure is the result of internal modeling. We calculated the volume of emissions for a 2030 RES target and the volume of emissions with RES corresponding only to 2020 targets. The 2200Mt is the difference between these two models.

[9] The Cost of Abating CO2 Emissions by Renewable Energy Incentives in Germany, (see here)

[10] Renewable Energy Incentives and CO2 abatement in Italy (see here)

[11] This is calculated as the difference between National Renewable Energy Action Plans' expectations and Primes 2013 ex-post data. See EU Energy, Transport and GHG Emissions Trends to 2050 Primes 2013 EU 28 reference scenario (page 86).

The overlap of the Renewable Energy Directive and the Energy Efficiency Directive with the EU ETS are very different in nature.

By setting a binding renewable energy target, the scale of the overlap was, to some extent, measurable. Part of the expected amount of renewable energy that would be driven by the RES target was embedded in the cap of the EU ETS. However, the cap of the EU ETS did not incorporate any *additional* emission reductions arising from renewable energy development beyond the 20% share of renewable energy by 2020.

The overlap with the Energy Efficiency Directive was not recognised from the outset in the cap of the ETS as its impacts in terms of GHG reductions in the ETS sectors were not sufficiently assessed. Such emission reductions triggered by the EED occurred within a fixed cap of the EU ETS that did not correctly incorporate those additional emission reductions, which therefore contributed to the oversupply in the ETS market.

In both cases, a number of reports and studies have highlighted that GHG emission reductions driven by RES support schemes or by the Energy Efficiency Directive often occur at a higher cost than would otherwise be the case if the ETS had driven the same emission reductions[12]. The question then becomes to what extent such extra costs are justified by the achievement of policy objectives that go beyond GHG emission reduction targets and may include energy security and improvement of ambient air quality. The debate over the relative costs of the different policy objectives is often overlooked but greater transparency is needed.

Recent research that focuses on the drivers for emission reductions in the power sector specifically[13], indicates that **most emission reductions for the power sector were driven by the development of renewable energy production**. These reductions were more expensive per tonne of CO2 mitigation than using the EU ETS. By 2010, emission reductions from the Renewable Energy Directive were estimated at around 50 Mt CO2 across the EU ETS sectors.[14].

2.2. Other legislation overlapping with the EU ETS

2.2.1. Energy performance legislation

In addition to the Energy Efficiency Directive additional energy efficiency legislation is in place regulating energy performance of products in the European Union including:

- **Eco Design and Energy Labeling:** Policy that targets manufacturers by regulating the design phase of new products. The Eco-design Directive provides consistent EU-wide standard rules for improving the environmental performance of energy-related products. The Directive has mainly affected consumer products to date contributing to lower the electricity consumption of selected product groups and reducing CO2 emissions. Such reduction is not embedded in the cap and risks causing policy overlap with the EU ETS (in terms of emission demand reduction driven by command and control policies).
  The estimated impact on CO2 emissions reduction is **400 Mt by 2020** (corresponding to approx. 376 TWh of energy savings)[15].

[12] See the European Commission's impact assessment on the Energy Efficiency Communication (here). On page 50 (table 9), the different expected carbon prices are highlighted according to different decarbonisation scenarios. The cost per tonne of CO2 is much higher under a scenario with strong energy efficiency compared to the ETS price (this is shown when converting €/toe to €/MWh, and then converting €/MWh to €/CO2).
[13] See CDC CLIMAT's research working paper from October 2014: "The CO2 emissions of the European power sector: economic drivers and the climate-energy policies' contribution" (here)
[14] See CDC CLIMAT's Climate Brief from September 2012: "Energy Efficiency, renewable energy and CO2 allowances in Europe: a need for coordination" (here)
[15] See information on the Ecodesign Directive on the European Commission's website here

- **Energy Performance of Buildings Directive (EPBD):** Requiring all new buildings to be nearly zero-energy by 2020, and all new buildings owned by public authorities by end 2018.

2.2.2. Air quality plant level legislation

Air quality plant level legislation including the Large Combustion Plant Directive (LCPD)[16], the Industrial Emissions Directive (IED), and Medium Combustion Plant Directive affects the EU ETS by influencing performance standards **of combustion plants:**

- **Emission standards:** plant permits are to be updated to Best Available Techniques (BAT) within 4 years from the publication of new BAT.
- **Energy efficiency standards:** energy efficiency levels are to be considered in identifying applicable BAT.

The overlap of the IED with the EU ETS arises from the fact that emissions standards and energy efficiency standards impose additional abatement to plants, which may affect the CO_2 emissions levels of installations. The net effect is difficult to estimate, but a higher uptake of BATs is likely to reduce CO_2 emissions from the overall system.

Additional interactions between the EU ETS and the IED arise from specific derogations contained in the latter. For instance exemptions from the new standards are granted to plants with a limited lifetime of max 17.500 hours in the period 2016-23, and which will shut down thereafter (opt-out clause). Generous standards are in place for plants operating < 1.500 h/year. Transitional National Plans developed by governments allow for further time limited derogations.

There is great uncertainty over the number of EU plants under the opt-out clause and uncertainty over the possible timing of a phase-out. However, the combination of the above rules could lead to up to 75% reduction of operating hours and a possible phase-out of the oldest plants resulting in potential strong CO_2 emission reductions.

A good example of the feedback between the EU ETS and the LCPD concerns plants that opted out of the LCPD and had limited hours. A number of these plants ran at near 100% due to low ETS prices, using their allotted 17.500 hours early. This caused a number of inadvertent issues in the UK power market. Due to the opted-out coal running at near 100% and due to a lack of policy certainty from an incomplete Electricity Market Reform (EMR), gas plants were uneconomic and were subsequently mothballed by operators.

However when the LCPD-opted-out coal plants closed early, there was not enough available capacity leading to the risk of capacity shortages. The rapid closure of coal plants was not reflected in market prices to maintain sufficient availability of gas capacity. As a result, the UK had to bring forward a Supplementary Balancing Reserve (SBR) in the winter of 2014-15 to maintain supplies.

Medium Combustion Plant Directive (MCPD)
The MCPD will introduce emissions limits for plants between 1-50MW and so will have an impact on the EU ETS as it impacts plants above 20MW.

2.2.3. National emissions ceilings Directive

Currently the European Parliament and Member States are negotiating the National Emissions Ceiling Directive (NECD), which will extend national caps for sulphur dioxide (SO2), nitrogen oxides (NOx), non-methane volatile organic compounds (NMVOCs) and Ammonia (NH3), and introduce caps for particulate matter (PM2.5 & PM10) and methane (CH4) for 2020 and 2030.

[16] The LCP directive was incorporated in 2010 in the Industrial Emissions Directive

The national caps will be implemented by a combination of the EU legislation described above and national policy. Whilst the impact of EU legislation can be modeled to some degree, national policymakers will have a range of policy tools at their disposal and different national objectives. This will mean there is little certainty over where the emissions reduction could come from and thus little certainty over its impact on the EU ETS. For example, given the acute issues of air quality in urban centres, many Member States may opt to restrict emissions from transport, and potentially also from the power and industrial sectors.

2.3. National policies that overlap with the EU ETS

There are national policies that also overlap with the supply and demand balance of the carbon market. One of the reasons of such overlap arises from Member States setting national targets that are not in line with the EU targets. In order to meet such national objectives, additional policies are introduced, which cause lower demand for allowances in the EU ETS. On an individual basis such policies often do not achieve a sufficient scale to materially affect the market. However, they encourage a fragmented approach to EU climate policies that could build up to have quite a significant impact on the overall demand-supply balance of the EU ETS.

2.3.1. Carbon tax

A carbon tax is a levy imposed on companies in proportion to the CO2 emissions that are released when burning a (fossil) fuel. The level of the incentive is changed by political decisions and does not automatically adjust to fundamentals. For example, if the emissions are too high in relation to the national target, policy makers will likely intervene to set the tax at a more appropriate level. There are very low prospects for an EU-wide carbon tax as unanimity is required in Council and several Member States are vehemently against EU taxation. National taxes are therefore more probable but will distort EU-wide competition if they are applied unilaterally at a national level and lead to distortions of the internal electricity market. CO2 taxes will likely become differentiated not only between countries but also between sectors (and possibly fuels). **Hence, carbon taxes would likely lead to a lack of uniform CO2 price signal – as opposed to an economy-wide EU ETS**. Tax levels are also sensitive to lobbying and often driven by state budget needs.
Although carbon taxes, in theory, can play a role in driving down emissions by putting a cost on pollution, in practice it is impossible to hedge against political alterations in the CO2 tax (as opposed to ETS price movements).
A national tax combined with an EU-wide cap and trade system leads to emissions reducing in that country, lowering the carbon price in the rest of the EU, and thus potentially resulting in more emissions elsewhere.

Assessing the impact of carbon taxes will depend on the rate at which a tax is set, and the administrative level where it is imposed (at national/regional/sectoral level). Quantifying the emission reductions that result from a carbon tax is a difficult exercise as taxes serve to increase the cost of emissions without guaranteeing what level of emission savings will occur.

2.3.2. Emissions Performance Standard on CO2

An emissions performance standard (EPS) for power plants would usually be expressed as a maximum allowed tCO2/MWh produced. If the plant does not meet this level, it loses its right to operate. There are two distinct possible scenarios, whereby an EPS would apply to new installations or to existing installations.

An EPS on new installations limits the choice of new-builds on low carbon technologies (gas, CCS-equipped coal, CHP RES). It can lead to delayed replacement of older power plants by more efficient ones. Such a measure could be introduced to dis-incentivise certain high-emitting technologies. However, in such a situation, we would move away from a technology-neutral and flexible approach to investment, as

we have with the EU ETS, towards a policy that encourages certain technologies over others and lacks flexibility.

An EPS on existing installations risks leading to stranded assets (premature closures).

Combined with a cap and trade policy, an EPS forces crowding out of unwanted plants, which in turn reduces demand for allowances inside the ETS. The emission reduction potential of an EPS is more easily quantifiable than taxes, but its costs need to be taken into account when assessing such an option, as choice is limited by regulation not by market economics. Imposing an EPS on plants would become a political choice of which technology to favour over others – it would not represent the most cost-effective emission reduction pathway; nor would it offer any flexibility to operators about how to reduce emissions.
An EPS may drastically reduce demand for EUAs, beyond the adjustment capacity of the MSR, as currently formulated. Such a policy would achieve the emission reduction objective on a less efficient pathway than the EU ETS.

2.3.3. Hybrid approach: Penalty payment on exceeded pre-set emission volumes

A combination of an EPS and a CO2-tax in one instrument on top of the ETS is also a possible policy overlap to look out for.

It is important to highlight that an instrument that puts different values on a tonne of CO2 would possibly lead to fragmentation of the EU ETS and undermine the principle of cost-efficient emission reductions. Such considerations need to be acknowledged before any such policies are implemented.

By setting a threshold and penalising additional emissions, the production of power plants would be economically limited.

Section 3: What are the consequences of overlapping policies with the EU ETS?

There are different consequences from the overlap of policies with the EU ETS, which should be evaluated ex-ante before they are introduced, but also ex-post in order to ensure a continuous evaluation of how various policies interact.

3.1 Evaluating the design of other policies

IETA recommends an ex-ante assessment of the design of various policies according to the following indicators:

- Is the policy a market instrument?
- Are the costs of the policy transparent?
- Are the impacts of the policy transparent in terms of emission reductions?

3.2. Evaluating the consequences of other policies compared to the EU ETS

IETA also recommends continuous evaluation, including ex-post evaluation, of the various policies that potentially overlap with the EU ETS, to assess their consequences according to the following indicators:

1. **Economic efficiency**: is the most cost-efficient abatement option being developed?
2. **Environmental outcome**: are these additional policies being used to meet a specific environmental outcome, and if so, are they conflicting with the environmental objective of EU GHG emission reductions, reflected by the EU ETS cap?
3. **Harmonisation vs. distortion of the EU's internal energy market**: what are the consequences of these other policies on the EU's internal energy market?
4. **Direct or indirect impact of the policy on the EU ETS**: do other policies directly impact the EU

ETS by incentivising emission reductions in sectors already covered by the ETS, or do they have an indirect effect whereby emission reductions occur as a result of these policies being implemented without this being the main objective of such policies?

5. **Other consequences:**
   - **Is the policy promoting specific technologies to the detriment of cost-effective alternatives?**
   - **Is the EU ETS being forced to adapt to a less efficient policy mechanism?**

All the policies analysed above have similar characteristics that contrast with the EU ETS.

- Most of them are not market instruments, and are not transparent on the costs required from their implementation (apart from carbon taxes, which, although are transparent in terms of costs, do not result in guaranteed emission reductions).
- Moreover, these policies lack transparency on the consequences on emission reductions (e.g. there lacks transparency on the emission reductions that arise from the Energy Efficiency Directive).
- They also fail to meet the principles of cost-effectiveness of emissions trading, which are detailed in section 1. Whilst the EU ETS provides flexibility to businesses to decide on the timing of investments, the EED, RED and direct regulations lack such flexibility. No policies other than the EU ETS enable price discovery through market forces; nor do they facilitate the possibility to link with other jurisdictions.

This section provides a matrix to evaluate various policies according to indicators that are clearly met by the EU ETS.

Matrix evaluating the level of overlap of existing policies with the EU ETS, in terms of their expected impact towards 2020

Policy/ Indicators to assess policies	ETS	EED	RED	Direct regulation (IED, Eco-design, Air quality directive, etc.)	Carbon tax
Cost-effectiveness	High	Low	Low	Low	Low
Environmental outcome	High	unclear	High	unclear	unclear
Internal energy market	High	Low	Low	Low	Low
Transparency on the impact on emissions	High	Low	Medium	Low	Low

The first column highlights the advantages of the EU ETS: it is a cost-effective policy instrument, with a transparent environmental outcome, and with EU-wide applicability that contributes to building an internal energy market.

Cost-effectiveness is one of the indicators where policies other than the EU ETS score badly, due to their lack of flexibility, as they impose either standards or costs, instead of allowing the most cost-effective option to develop.

Some other policies score highly on their **ability to meet a specific environmental outcome** (e.g. renewable energy uptake). However the achievement of such targets has direct consequences on the level of emissions and therefore on the amount of demand for EU allowances. As a result, the over-achievement of renewable energy measures is a cause of overlap with the EU ETS. The EED contains a mixture of policies implementable at Member State level. Compared to an EU ETS cap that limits overall emissions, the EED environmental outcome is much less certain. The achievement of an environmental

outcome from direct regulation is unclear as it depends on its implementation. Carbon taxes do not guarantee the achievement of an environmental outcome but simply serve to increase to cost of emitting.

All other policies score badly on their **effect on the internal energy market**, as they lack EU-wide applicability, thereby causing intra-EU competitive distortions between EU Member States.

Transparency of the consequences of the various policies remains problematic, as the impact on the resulting emission reductions (and the cost of such reductions) is rarely taken into account. These policies are put in place to meet other objectives (e.g. greater share of renewable energy in the energy mix, or greater security of supply) but they also lead to substantial emission reductions. These consequences are not always transparently foreseen from the outset, which causes overlap with the EUETS.

Section 4: IETA's recommendations

Section 3 highlights the possible consequences of a wide range of overlapping policies with the EU ETS – which we have shown could contribute to a reduced demand for EUAs by 1.1 Billion allowances by 2020[17] not foreseen in the ETS cap. As a matter of principle, overlap should be discouraged as it inhibits the market effectiveness of the EU ETS and therefore puts into question the EU's capability of reducing emissions cost-effectively**. If policies that overlap with the EU ETS prove necessary to policy-makers then greater transparency of such effects is needed, in terms of costs and emission reductions. The chosen option should be properly evaluated, and designed in a way that is compatible with the market design of the EU ETS and as transparent as the ETS is, in terms of its costs and its objectives.**

We recommend that careful consideration of the different types of overlap - as detailed in section 2 - be analysed thoroughly within open and transparent impact assessments for any proposals introducing new or amending existing policies aiming to reduce CO2 emissions and energy consumption.
The annual carbon market review of the European Commission should incorporate policy interplay transparency. In such review the Commission could update forecasts and report on delivery of major policies overlapping with the EU ETS.

Moreover, in light of changing circumstances, **we recommend a general review with full consultation, every 5 years, of all policies that lead to emission reductions, to evaluate the consequences of other policies on the EU ETS**. An alternative to this would simply be to adjust the inter-institutional agreement on 'Better Regulation' such that new policy proposals be subject to robust impact assessments that specifically include interaction with the EU ETS. Such an assessment is necessary to ensure that the EU ETS is a strong and liquid market instrument and that the EU is on the most cost-efficient decarbonisation pathway. If other policies have to be maintained, it should be clearly demonstrated that they help achieve their goals, in particular cost effectiveness, more successfully than what the EU ETS could deliver on its own.

Based on the findings in the previous sections, IETA proposes additional recommendations on how to design policies to best avoid overlapping policies and mitigate the risk of the EU ETS becoming a residual tool. Without putting into question IETA's preference for the EU ETS to remain the central instrument of the EU's CO2-reduction policy, a number of policy coordination measures could be implemented to ensure that certain inefficient effects on the EU ETS are predictable and minimised.

- **Careful setting of the EU ETS cap**: The cap should be set at the beginning of each phase to signal the overall target level of scarcity. Any policy that will overlap with the function of the EU ETS in reducing emissions should be strongly discouraged. While adjusting the cap for other policies outside the phase increases policy risk and hinders longer-term planning, if the impact assessment for a new policy indicates there is material impact on the ETS and if such a policy is

[17] The EED and RED are expected to contribute to more than 700Mt of reduced demand for EUAs and the Eco-design Directive to 400 Mt.

maintained despite the overlap, or if this is evidenced in the 5 year general review, then the baseline of the ETS should be adjusted going forward. Adjustments to the ETS cap should normally only be considered in light of changes in relation to progress towards the overall 2050 targets and in light of progress in international negotiations. Ideally any new policy and consequent change to the cap should happen at the start of a Phase.

- **Transparency**: Greater transparency on the CO2 reductions and sub sectoral allocation - including at installation level, and on the costs of other policies is fundamental to ensure well-informed decision-making. Moreover, ensuring adequate monitoring of impacts from other policies will support a stable CO2 price signal and greatly help predictability and comparability of various policies with similar objectives. To this end, the European Commission should codify the intent of Article 193 of the TFEU[18] in the upcoming proposal for EU-ETS reform, which allows Member States to implement their own measures to protect the environment. Improving transparency on overlapping policies can occur through systematic and periodic monitoring of impacts and transparent publication of information. In its annual carbon market report, the European Commission should provide updates on reporting on the actual and expected delivery of overlapping policies. This would help the market internalise the numbers rather than chase non-transparent data. Transparency is needed, prior to each Phase, if there is a decision on Article 24 of the ETS Directive, for sectors and gases to be included or not in the EU ETS.

- **Gradual impact from overlapping policies**: If, after careful consideration of the impact of other policies on the EU ETS, policy makers choose to put in place such policies, it is important that their consequences do not create sudden shocks in the EU ETS. If they are to have an impact on the EU ETS, the effects should be limited as much as possible, by ensuring a gradual impact. Introduction of other policies should be done with sufficient notice to allow the market to naturally and automatically adjust. It is therefore important to enhance and coordinate policy design to ensure suitable advance notice of new policies.

- **Governance**: Governance will also play a role in determining the impact of overlapping policies. This includes, for instance, the choice of binding vs. non-binding targets, as this will likely influence the policies put in place to meet such targets. Binding targets are most likely going to encourage national measures being introduced to meet such targets, which will therefore have consequences on the reduction of GHG emissions. Efforts to ensure greater EU-coordination of national measures can help minimise the level of overlap with the EU ETS and help minimise costs.

- **Exclusion of traded sectors from overlapping low-carbon policies whose effects on installations would go beyond their ETS obligations**: Sectors covered under the EU ETS already have an obligation to reduce emissions and adding further obligations by including these installations in the scope of the Energy Efficiency Directive and other low-carbon policies overlaps with the EU ETS, is economically and bureaucratically inefficient, and constitutes double regulation. In both the original and current EU ETS Directive, Article 26 already specifically recognises the principle of avoiding overlap, as it states that for EU ETS installations, an IPPC site permit does not include an emission limit value for direct GHG emissions. Also, it specifies that Member States may choose not to impose requirements relating to energy efficiency on activities falling under the ETS Directive.

- **Market Stability Reserve**: The MSR will play a role in adjusting the supply of allowances to changing circumstances. For the time being, it is the only instrument in place that can deal with past policy overlaps with the EU ETS. The MSR will not solve the problem of overlapping policies, but it can go a long way to address the current consequences of overlapping policies in the

[18] Article 193 states that "the protective measures adopted pursuant to Article 192 shall not prevent any Member State from maintaining or introducing more stringent protective measures. Such measures must be compatible with the Treaties. They shall be notified to the Commission."

system. The very nature of the MSR is to address the surplus by withholding allowances from auctioning and therefore it could 'repair' the negative effect of overlapping policies by absorbing their impact. However, there is a risk that the MSR could lead to the EU ETS becoming a residual instrument by adjusting itself in the face of other climate policies, which means that a less cost-effective approach will be adopted. By not addressing the problem at its origin, it cannot be considered as the only solution to minimising the impact of policy overlap. Nevertheless, the MSR is the most effective existing tool for mitigating the impacts of overlapping policies and uncharacteristic economic volatility.

- Reading List -

- **Impact Assessment on 2030 Climate and Energy Package** – European Commission (here)
- **Managing interactions between carbon pricing and existing energy policies** – IEA (here)
- **Summing Up the Parts: Combining Policy Instruments for Least-Cost Climate Mitigation Strategies** – IEA (here)
- **The Future of Electricity: Attracting investments to build tomorrow's electricity sector** - Bain & Company (here) (infographic)
- **Power Choices Reloaded: Europe's Lost Decade?** – EURELECTRIC (here)
- **Will Europe Scrap its Renewables Target? That Would Be Good News for the Economy and for the Environment** – Robert Stavins (here)
- **Is Europe's Renewables Mandate Bad for the Environment?** – Michael Levi, response to Rob Stavins' blog post (here)
- **The Cost of Abating CO2 Emissions by Renewable Energy Incentives in Germany** – Claudio Marcantonini and Denny Ellerman, Feb 2013 (here)
- **Renewable Energy Incentives and CO2 abatement in Italy** – Claudio Marcantonini and Vanessa Valero (here)
- **Making climate change policies fit their own domain** – On Climate Change Policy Blog, Adam Whitmore (here)
- **Causes of the EU ETS price drop: Recession, CDM, renewable policies or a bit of everything? New evidence,** Koch *et. al*, July 2014 (report available here)
- **Impact of renewables deployment on the CO2 price and the CO2 emissions in the European electricity sector**, *Kenneth Van den Bergh, Erik Delarue, William D'haeseleer* (available here)
- **Too Many Cooks: How Europe Undercut its Climate Goals with a Mishmash of Green Policies** – The Week (here)
- **Forecasting the EU ETS up to 2020,** Sandbag, October 2014 (here)
- **Slaying the dragon – Vanquish the surplus and rescue the ETS**, Sandbag, October 2014 (here)
- Climate Brief n°32 "**One billion tonnes of CO2 avoided since 2005 in Europe: half due to energy-climate policies and half due to economic context**", CDC CLIMAT, October 2013 (here)
- **Assessing the factors behind CO2 emissions changes over the phases 1 and 2 of the EU ETS: an econometric analysis**, CDC CLIMAT, October 2013 (here)
- Climate Brief n°18 "**Energy efficiency, renewable energy and CO2 allowances in Europe: a need for coordination**", CDC CLIMAT, August 2012 (here)
- **The CO2 emissions of the European power sector: economic drivers and the climate-energy policies' contribution**, CDC CLIMAT, October 2014 (here)
- **Exploring the Interaction Between California's Greenhouse Gas Emissions Cap-and-Trade Program and Complementary Emissions Reduction Policies** – EPRI (here)
- UK and Czech Republic non-paper: **European Governance of EU Energy Policy Goals – detailing how the EU's governance rules could address overlapping policies available** (here)
- **What does the European power sector need to decarbonise? The role of the EU ETS and complementary policies post-2020**, Climate Strategies, July 2015 (here)