

**Reaction to the European Council's Conclusions on the 2030 Climate and Energy Framework  
& Implications for IDDRI-Climate Strategies' EU 2030 Research Project**

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**Principles for the EU 2030 Climate & Energy Framework**

In September 2014, IDDRI, together with a number of European think tanks led by Climate Strategies, published two papers on the EU 2030 Climate and Energy Framework. The first was an in-depth report its "Discussion Paper on What Is Needed in the EU 2030 Climate and Energy Framework". This paper outlined a number of important principles upon which the 2030 Framework should be developed, as well as a number of specific policy proposals for discussion. The second paper was an in depth scenario analysis of the impacts of a disruption to European natural gas supplies and different options to mitigate these risks. Both papers were the interim results of an ongoing collaboration between more than 10 different European think tanks and academic institutions on the 2030 Framework.

These two papers together outlined three principal needs:

1. Policies that address both price *and* non-price barriers to decarbonisation.
2. Scaling up investment in strategically important sectors for decarbonisation, energy efficiency and in energy security infrastructure
3. Effective mechanisms for planning and coordination to achieve national and European goals

**Specific policy proposals for discussion**

In the ETS Sectors, we argued that the carbon market is an essential part of the policy package to decarbonisation by mid-century. However, we also noted that the carbon market needed to be reformed so that the carbon price was not artificially depressed by a surplus which was too large for the market to absorb. Thus, we argued that the Market Stability Reserve design should be adapted to ensure that the back-loaded allowances will not be allowed to return the market at the end of Phase 3. The paper also highlighted the need for complementary policies and targets to tackle the non-price barriers to decarbonisation in ETS sectors.

A genuinely reformed Phase 4 of the carbon market should also lead to significantly higher carbon prices by 2030. Anti-carbon leakage provisions will therefore need to be significantly reformed for the most energy intensive sectors. We therefore proposed two alternatives for discussion. The first was that from 2021 *ex-post* allocation should be given to the most energy intensive sectors together with a carbon charge based on the ETS price. The latter could be passed down the value chain much like an excise levied on fuel, tobacco or alcohol and function like the existing European Excise Movement and Control System. This option would allow for a closer alignment of allocation with actual production, mitigating the distortions related to *ex-ante* allocation. Moreover, it would ensure that the ETS carbon price would be felt by purchasers of these products, thus restoring incentives to innovate and improve material efficiency throughout the value chain. Finally, it would raise funds for these energy intensive sectors that could be used to finance demonstration of key breakthrough technologies, like low carbon cements, CCS, etc.

Moreover, in the 2030 period free allocation to the current list of sectors, based on a declining “pie” of free allowances will become unsustainable as an approach to leakage. We therefore advocated a differentiated approach to the treatment of sectors on the current carbon leakage list, and a potentially shortening of the number of sectors, in order to protect those who are most exposed. The EU should also keep its options open with respect to the emergence of a consensus around border measures assuming that major trading partners such as China and potentially the US adopt carbon pricing by 2030.

In non-ETS sectors, the What Is Needed paper noted that there is a growing need to catalyse action for long run decarbonisation in strategically important sectors such as transport and energy efficiency in buildings. At the same time, it was noted that flexibility would be a crucially important component of the post-2020 Effort Sharing Decision, given the different levels of effort that would be required from different Member States. However, past-experience with flexibility mechanisms involving trading of allowances between Member States has been disappointing. The paper therefore proposed an option of a focused flexibility mechanism involving a Central Clearing House (CCH) for low carbon projects. The central clearing house option, along with other controls of the functioning of the market, would be used to overcome important shortcomings related to market transparency, project quality, biases towards certain project types, transaction costs, as have been identified with previous flexibility mechanisms. Such a mechanism could potentially be combined with other EU Funds to increase its fire-power. It would aim to not only cultivate least cost reductions until 2030, but also catalyse action, improve the bankability of otherwise unfunded projects and build knowledge about how to develop projects. Moreover, we noted the importance of avoiding lock-in risks of low carbon investments in sectors such as transport and energy use in buildings, by emphasising dynamic as opposed to static cost-effectiveness.

Our What Is Needed Paper suggested that the new governance mechanism could combine a streamlined reporting framework together with strategic planning by Member States for decarbonisation on a sector-by-sector basis. Reporting on progress would be done on a biennial basis. It should use a simplified but essential set of indicators to assess Member State progress against their national strategies and European policy aims in key sectors. We highlighted the fact that this mechanism did not represent an unmitigated plea for “more Europe” but rather a call for Member States to think seriously about both their medium and longer term decarbonisation strategies, their implications for national policy, for national and EU financial frameworks, and for regional co-ordination.

On energy security, we proposed that the EU needs to pursue a combination of both supply and demand side solutions to tackle different facets of the problem. On the supply side, we noted the need for a moving forward quickly with a short list of projects of common interest in the natural gas sector, particularly in specific regions of Central and Eastern Europe. We proposed increasing transparency and coordination in the EU’s approach to gas contracting via greater reporting of gas contracting deals. We also proposed improving the internal market by the pursuit of quantified goals leading and setting a longer term of establishing a liquid spot gas hub in Central and Eastern Europe. On the supply side, we noted the significant potential for enhancing European energy security from going beyond the cost-effective targets for energy efficiency and renewable energy (particularly in the heating sector) proposed by the European Commission’s Impact Assessment on the 2030 Framework.

## **The EU Council Conclusions**

### *Targets and instrument mix*

The European Council’s Conclusions of the 24<sup>th</sup> October set a 2030 target to reduce GHG emissions by “at least 40%” compared to 1990 levels, to improve energy efficiency by at least 27% compared to a 2007 baseline, and to increase the share of renewable energy to at least 27% of EU energy

consumption by 2030. The latter two targets would be “binding at EU level”. An objective to attain a cross-border interconnection target for electricity transmission of 15% by 2030 was also set, albeit using somewhat vague language.

Our papers did not recommend specific targets in any of these areas. However, as noted above, both renewable energy and energy efficiency are areas subject to significant non-price barriers and market externalities. They are also areas of major strategic importance for long run decarbonisation and energy security. The targets proposed by the Council for renewable energy and energy efficiency are in fact very close to being in line with the Commission’s reference scenario, suggesting that they may be met without additional policies, despite significant potentials to go further. In practice, however, there are reasons to believe that this reference scenario may itself be overoptimistic (e.g. it assumes away risk characteristics of renewables investments). The project team therefore believes that it is important that individual Member States are enabled and encouraged to go beyond business as usual trajectories as implied by EU-level targets in order to facilitate strategic investment for their longer term decarbonisation and energy security strategies. It will therefore be important that EU governance framework that emerges from the 2030 policy package make this possible (e.g. through state aid guidelines, etc).

#### *ETS Sectors*

In the ETS sectors, a 2030 target of -43% vs. 2005 levels was agreed. The Council concluded that the ETS should be reformed “in line with the European Commission’s proposal” for a market stability reserve (MSR). Subsequently the Green Growth Group of Member States has stated its support for bringing forward the start date of the MSR to 2017 to effectively ensure that the back-loaded allowances do not return the market, as we argued for in our What Is Needed paper.

On anti-leakage provisions, the Council’s agreed that “existing measures” would be continued beyond 2020. However, a number of different objectives which suggest potentially significant reforms were also listed. These included the aim that “the most efficient installations should not face undue carbon costs”, “better alignment with changing production levels in different sectors”, but ensuring that “incentives for industry to innovate will be fully preserved”, that “administrative complexity will not be increased”, as well as that the “[avoidance of] windfall profits will be taken into account”. A key technical challenge will now be to reconcile these different objectives in a coherent way. For instance, better alignment with changing production levels, if not achieved by ex-post allocation, potentially runs the risk of increasing the distortions related to ex-ante free allocation thresholds. However, if ex-post free allocation were used, then this would eliminate important incentives for industry to improve material efficiency as it would effectively eliminate most of the potential pass-through of carbon prices to consumers. It may also be an unstable basis for investments in breakthrough technologies, as argued above.

The Conclusions also included the continuation of free allocation to the power sector to Member States with GDP/capita below 60% of the EU average. In an attempt to address concerns that the existing measures under Article 10c of the ETS Directive had led to financing of coal generation, the conclusions noted that the “current modalities, including transparency, should be improved to ensure that the funds are used to promote real investments modernising the energy sector”. Articles 2.7 and 2.8 of the Conclusions would also see 2% and 10% of auctioned ETS allowances transferred to Member States with GDP/Capita below 60% and 90% of the EU average in 2013, respectively, to “improve energy efficiency and to modernise the energy systems of these Member States, so as to provide their citizens with cleaner, secure and affordable energy” (2.7) and for the purposes of “solidarity, growth and interconnections” (2.8).

Both our What Is Needed and our Energy Security paper noted the importance of solidarity financing in respect of different historical endowments in the energy sector. However, we also noted that, to be justified, such financing must also serve to reshape the energy systems of recipient States

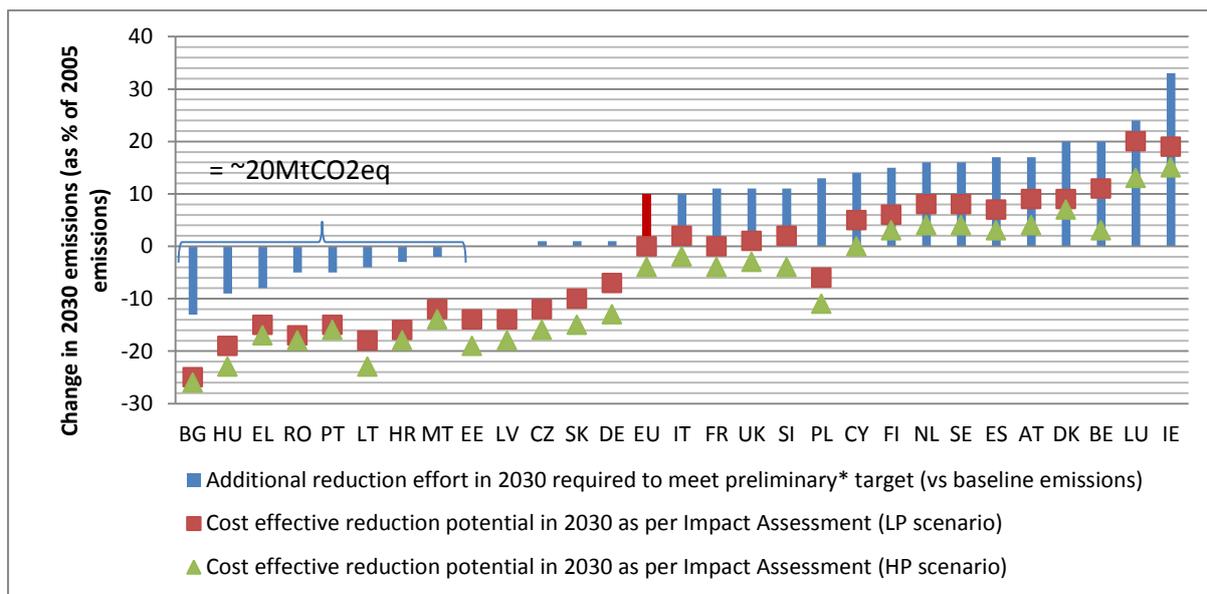
towards significantly less carbon intensive options. The Council did not resolve this question, which will now need to be resolved through the development of the explicit implementation modalities.

### Non ETS sectors

In the non-ETS sectors, the Council’s conclusions set a target to reduce emissions by 30% relative to 2005 levels. Based on the Commission’s Impact Assessment, this would require additional efforts equivalent to 10% of 2005 emissions in order to be achieved in 2030. In respect of the principle of fairness and solidarity, targets will vary significantly, between -40 and 0% between Member States. As a consequence, the Council placed a strong emphasis on the need for “significantly enhanced flexibility” for Member States in meeting the collective EU targets. However, the council remained largely silent on how this enhanced flexibility will work, although it proposed some new mechanisms, such as a one-off transfer from ETS to non-ETS sectors for certain Member States, the possibility to alter rich Member States targets based on cost-efficiency principles. It also called for the development of strategies to tackle emissions from land use land use change and forestry (LULUCF), although it was unclear whether this sector would be included in the -30% effort sharing targets with the other non-ETS sectors, or tackled separately.

A number of questions remain open concerning the implementation of the Council’s conclusions. Firstly, the Council left significant ambiguity concerning the exact efforts that different Member States will need to make as it is not yet clear exactly what formula will be used to allow Member States to transfer ETS allowances to their non-ETS targets, nor what formula would be used to determine the relative adjustments to high GDP/capita Member States’ targets to take account of cost-effective abatement potentials. Nevertheless, if one assumes that the transfer of allowances between the ETS and non-ETS sectors respect environmental integrity as is therefore limited, then the above mentioned flexibility mechanisms will most likely be insufficient to meet the demand for flexibility from Member States looking to purchase non-ETS emissions units. In several cases, there is reason to believe that if Member States are not able to pursue part of their abatement via flexibility mechanisms, then they will be unable to comply, putting the EU target of -30% into doubt. Thus, there is a strong need to examine further options for enhancing flexibility within the non-ETS sectors.

Figure 1. Abatement gap scenarios in the year 2030 by Member State, assuming uniform 20% reduction in all MS targets.



Source: Authors’ calculations, based on data from European Commission Impact Assessment, the European Environment Agency, and the 2014 October 24 EU Council Conclusions. Calculation compares the forecast 2030 emissions levels under

the Commission's Impact Assessment with Member States 2020 targets minus 20% (i.e. not adjustments to high GDP/capita targets as envisaged by the Council conclusions, nor LULUCF).

Furthermore, the emissions baselines set out in the Commission's impact assessment suggest that the non-ETS targets granted to Central and Eastern European Member States will in many cases be insufficiently ambitious to catalyse action towards long run decarbonisation and energy efficiency (albeit allocated in respect of the principle of fairness and solidarity, which we argued was necessary). It remains to be seen what will emerge from the Commission's work on developing mitigation instruments for LULUCF and transport. Finally, while the council noted a desire for cost-effectiveness, it focused purely on the 2021-2030 timeframe and did not discuss lock-in risks in non-ETS sectors or the need for longer run strategies towards decarbonisation, as we did in our What Is Needed paper.

### *Governance*

On the governance mechanism, the Council agreed to develop "a reliable and transparent" governance mechanism to "ensure the EU meets its policy goals". However, the proposed means of achieving these aims appeared to reflect a significant weakening of the role of the EU and possible enforcement processes, when compared to the Commission's Communication on the 2030 Framework of January. In place of references to comprehensive national energy plans that would be developed via an iterative process, the Council emphasised the need to build upon and streamline existing reporting mechanisms, to systematically monitor "key indicators for an affordable, safe, secure, competitive and sustainable energy system", and to "facilitate coordination of national energy policies and foster regional cooperation".

It is perhaps not surprising that Member States did not propose a strong European governance mechanism to keep themselves in line with European objectives. However, there remains important work to be done in defining:

- How, in the light of existing legislation (such as Renewables and Energy Efficiency Directives), Member States can be enabled and incentivised to go beyond European targets in strategically important areas such as energy efficiency and renewables without encountering problems,
- How short and medium term targets should be coordinated with longer term decarbonisation goals,
- What legal basis the new reporting framework should have,
- How a streamlined reporting framework should look, which indicators are important, and
- How coordination should be facilitated given Member States often conflicting interests.

### *Energy Security*

On energy security, the Council agreed in principle with a list of actions, several of which were closely in line with the proposal supported by IDDRI-Climate Strategies' researchers in our paper on "Addressing Energy Security in the EU's 2030 Climate and Energy Framework". These included the need to "implement critical projects of common interest in the gas sector", to promote the development of gas hubs in southern Europe, and to "make full use of the Decision establishing an information exchange mechanism with regard to intergovernmental agreements between Member States and third countries in the field of energy". The Council called for the Commission to contribute to the achievement of these goals and noted that it would revert to the question in 2015 to assess progress. Since the October Council, DG Climate Action and Energy have also announced its intention to table a proposal for a European Energy Union in early 2015. However, in contrast to the proposals in the "Addressing Energy Security" paper, the Council's conclusions generally focused more on supply side solutions, and to give a much more minor role to demand side solutions, such as energy efficiency.

## **Implications and Next steps for IDDRI-Climate Strategies EU2030 Research Project**

Based on these outcomes, IDDRI-Climate Strategies EU2030 Project therefore proposes to take the following steps:

Governance of the 2030 Framework: As noted above, both the Council and the Commission have now outlined a number of basic building blocks for a new governance mechanism to facilitate coordination and the achievement of EU targets. However, considerable work remains to be done to develop a concrete proposal for how the new governance mechanism should work. Important open questions include: what legal basis it should have? What streamlined reporting should look like? What are the key indicators that need to be included in national energy plans? How should longer term decarbonisation goals be reflected in the governance Framework? Can the EU, and against what benchmarks could the EU, require Member States to change or improve the internal and external coherence of their national energy plans? What role should be played by the renewable energy and energy efficiency directives? How would increased action internationally affect the efforts undertaken in the EU to 2030? Work has already begun on exploring these questions in our work on the governance work under the EU2030 project.

The Institute for European Studies has begun to develop a broader blueprint for how these different key elements of the EU governance package should fit together, beginning with the question of the legal basis for European energy governance. Meanwhile, IDDRI has begun to tackle the question of the design of national energy plans, and in particular ways in which long run decarbonisation plans might be introduced as a benchmark against which Member States to report and comply. In the later case, an examination of existing reporting frameworks has been undertaken. We believe that these elements will be important for embedding current policies, EU financing arrangements, and associated coordination efforts under the 2030 package, within nationally specific strategies for decarbonisation.

This work will also be complemented by the additional elements mentioned below where there are cross-overs between work packages (Cf. Discussion on non-ETS sectors and EU financing architecture, state aid rules, etc.)

European Governance of power sector decarbonisation: The EU Council's conclusions also noted that the EU ETS will be "the main instrument" to achieve the targets in the ETS sectors. However, it is also becoming increasingly apparent that the ETS is necessary but not sufficient to achieve cost-effective decarbonisation of the power sector. As we have argued in our What Is Needed paper, and as recent debates over State Aid Guidelines for renewable energy have demonstrated, greater clarity and understanding on the economics of low carbon investment for power sector decarbonisation is desperately needed.

Indeed, the issue of state aid is likely to be particularly relevant in the context of EU-wide targets (as opposed to Member State specific targets). In this context, on what legal basis will Member States be allowed to allocate state aid and to what extent? And which designs are likely to be most cost-effective? We propose to address these questions in a paper exploring the role of a reformed EU ETS in decarbonisation of power markets, its limitations and where complementary policies are justified. This paper will seek to draw practical conclusions for the design of future EU state aid guidelines for low carbon electricity investment in the post-2020 period. Consequences of failure to reform the carbon market effectively will also be analysed and explained in detail. The paper will also discuss options for reconciling the unperceived relationship between the present cost of investment in renewables and the replacement cost of conventional generation assets.

**Non-ETS Sectors:** As noted above, there are many unanswered questions that have emerged from the Council’s conclusions on non-ETS sectors. IDDRI-Climate Strategies intends to focus on just two: designing an enhanced flexibility mechanism and the governance of EU funds for climate related activities as the areas of greatest value added for further research work (under this project). This is because we believe that the distribution of targets will mean that a functioning and predictable market for AEAs will be essential to ensuring that the EU as a whole meets its targets. *We therefore propose to continue work on options for the design of an enhanced flexibility mechanism for non-ETS sectors together with the IDDRI-Climate Strategies EU2030 project team*

Secondly, the debates around effort sharing and mechanisms for meeting member state goals focus intensely on the 2030 targets. However, the 2030 targets are just a milestone to a broader objective to decarbonise non-ETS sectors. We therefore see particular value in exploring ways of helping Member States to plan and prioritise actions – and in particular the spending of EU funds – to avoid closing off pathways to the longer term decarbonisation objectives via lock-in. *We believe that this is essential for ensuring the robustness of the 2030 package in terms of facilitating the pathway towards longer run decarbonisation. We thus propose to explore options for doing so under both the governance work package, beginning within the paper we are preparing on approaches to non-ETS sectors.*

**ETS Reform, MSR:** A number of technical questions remain about the specific design of the market stability reserve (MSR). These include, for example, the robustness of its design to future demand shocks, the optimal rate of entry and exit of allowances from the reserve, the timeliness of the review mechanism, how it should be adjusted over time to reflect potentially significant changes in utility hedging demand, and market expectations about the treatment of the accumulated reserve of allowances post-2030. The IDDRI-Climate Strategies EU2030 Project has been examining these questions as part of a multi-modelling exercise on the implications of the design of the MSR during the past months. The team aims to begin publishing these results on the IDDRI-Climate Strategies website from December and to continue communicating with stakeholders in this debate over the coming months. *The results of this exercise will be used to inform the conclusions of the IDDRI-Climate Strategies EU 2030 Project, and also to inform IDDRI’s work on the role of the ETS in power market governance.*

**Carbon Leakage:** Climate Strategies intends to build upon the European Council’s conclusions and to suggests ways in which they might be reconciled in a coherent package of anti-leakage provisions. However, at present, it appears that further work on the leakage question will run at a somewhat slower speed. There are two reasons for this. Firstly, as part of a longer term project during 2015, Climate Strategies will present new analysis examining how inclusion of consumption could be implemented together with output based allocation for very energy intensive sectors. Secondly, the team sees greater benefit in the short term in concentrating its efforts on the remaining 4 work pieces of work on governance, which have perhaps received less public attention: non-ETS flexibility measures, detailed ETS reform and the governance of power sector decarbonisation.

## Timeline

Work Package	Drafts and working paper deadlines	Stakeholder event(s)	Publication of final paper(s)
MSR reform	High level policy document outlining key policy recommendations to be published on the CS website in early Jan.	Presentation of preliminary results at stakeholder workshop in Berlin (September) - DONE	Academic publications about individual models and results pursued in 2015

	Working papers on the individual models and results to be published by Xmas.	Presentation of final results at CEPS seminar in late November – DONE Possible panel session at EAERE session in June 2015	
Approaches to effort sharing and decarbonisation of non-ETS sectors	First draft of final report finished by Mid-December 2014 and circulated for review by advisory group, then among broader stakeholder groups in Jan.	Presentation of interim work at DIW Berlin event with German ministry officials November 2014 - DONE Presentation of interim conclusions at Member State expert workshop November 2014 - DONE Presentation of draft final conclusions at Workshops with MS officials in Paris Jan 2015, possibly another in WSW?	Launch of final report in BXLs stakeholder event March 2015
Governance of power sector decarbonisation	Draft paper due for End of January 2015 to circulate for first review	We would like to organise an event with stakeholders, including EU state aid experts, in March 2015	Final report to be completed and published following the stakeholder event (April 2015?).
Governance	Draft paper on principles and mechanisms for governing key aspects of the EU2030 package to be finished by end February 2015 for review	Stakeholder workshop with governance experts at VUB in Brussels in March 2015	Finalisation of papers by April 2015
Carbon Leakage	March-May 2015	TBD	TBD