GETTING DELIVERY RIGHT: THE EU 2030 CLIMATE AND ENERGY TARGETS AND THE CHALLENGE OF GOVERNANCE

Introduction

The October 2014 European Council's agreement on a headline Greenhouse Gas Emissions target, accompanied by a set of targets on energy, and decisions on the EU's emissions trading system (ETS), was an important step in the process leading to the Paris climate talks in December 2015. Parties to the UN Framework Convention on Climate Change are expected to come forward with nationally determined contributions[1] to a global effort on climate mitigation; the EU has been keen to be well in advance of the March 2015 deadline for contributions to enable a thorough preparation of the Paris talks. The energy targets and ETS positions adopted by the European Council at the same time help to show how the EU intends to deliver its commitments, and should, in principle, provide guidance to EU legislators, and clarity to investors on what policy choices they can expect on the path to decarbonisation. The European Council's decision to clarify that the 2030 package was a minimum, and could be increased if necessary following an agreement at the Paris conference[2], has also provided a clear signal of EU flexibility to negotiate, and could create valuable additional flexibility in the endgame of the negotiations at Paris.

Now that the strategic orientation of the EU package has been agreed, attention will focus in two directions: on the impact on international negotiations (including in the light of the subsequent US-China announcement); and on how, in practice, the EU and its Member States deliver on the commitments. This note focuses on the latter issue.

The European Council package appears to signal a shift away from an EU-led, technology-specific approach to guiding Member States' approaches to decarbonisation of their economies. Specific targets for Member States on the share of renewable energy in their energy mix (set in a top-down process), and on their 'energy efficiency'[3] (set in a bottom-up process) have been removed, and replaced by a call for a new governance framework based on reporting and a looser process of coordination. To an extent, this reflects a process typical to European Council decision-making, where the requirement for consensus across

[1] "Intended Nationally Determined Contributions"

[2] The interpretation most observers have given to the words "at least", and to the commitment to return to the subject after Paris, although it should be noted that this interpretation is disputed by a few Member States.

[3] The energy efficiency target is more correctly considered a target for reduced energy consumption – for the sake of consistency with other commentators, we will refer to it in this paper as "energy efficiency".

28 Member States allows a minority to limit the scope and impact of policy initiatives; but it also reflects a political context increasingly sceptical of a top-down EU approach. The detailed design of the governance framework, how it will operate in practice, and the changes required to individual pieces of EU legislation, remain to be determined; in particular, it remains to be seen how far the Commission will be willing to table proposals for co-decided legislation which delivers a fully effective regime, and how far the European Parliament will insist on an approach based on co-decided legislation, with the possibility of revisiting elements of the European Council's approach.

The European Council's principles for climate and energy governance

The European Council conclusions suggest a set of broad principles – either implicit or explicit – for a new governance system. These can be summarised as follows:

1. Targets should be delivered in a cost-effective way;
2. All Member States should participate in delivery of the targets, balancing considerations of fairness and solidarity;
3. The EU should not override the Member States' right to determine their energy mix;
4. The EU should facilitate the coordination of national climate and energy policies;
5. Delivery of the targets should not distort the internal market or infringe state aid rules;
6. There will be no new major implementation tools, the existing ones will be streamlined in a single reporting system;
7. Implementation of the Energy Union goal will be subject to regular review.

These principles are, however, the product of a decision-making process within the European Council which allows individual Member States an effective veto; so, while they are now written into the guidance the European Council has provided to legislators, they may have more or less support among Member States, and be more or less subject to flexing as legislation is decided by sectoral ministers in the Council, and by Members of the European Parliament.

Some suggested objectives for a governance framework

Before examining the European Council's principles in more detail, and offering suggestions on how they should be supplemented and interpreted, it makes sense to start from a set of broad objectives for a governance system. In doing so, we will focus on elements of the package other than the Emissions Trading System, where doubt over the form of implementation is less relevant as an issue (although the timing of legislative change, both for the introduction of the Market Stability Reserve and for the changes mandated by the European Council, will matter).

1. **Enhance the EU's likelihood of meeting the 2030 targets – particularly the GHG target for domestic emissions reduction, but also the subsidiary targets.** This would seem obvious: but it is worth re-stating. Indeed, it could be argued that delivering objectives relating to living within a global margin of safety for future GHG emissions is more important than, for example, aspirational objectives on GDP or

education, of the sort included in the Lisbon and EU2020 agendas. This is not because environmental objectives are necessarily more important, but simply because the nature of a system with limits requires a different approach, with less margin for error. There are also implications for how the EU and its Member States deliver the targets – approaches which lead to higher emissions elsewhere (for example, as a result of carbon leakage, or as a result of indirect land use change impacts of bioenergy) should not be favoured.

2. **Enhance co-benefits with other policy objectives, such as energy security, jobs and growth, social cohesion, health, and wider environmental impacts**; in other words, ensure broader policy coherence, in order to maximise the cost-effectiveness of EU and Member State action in pursuit of a range of goals. This is not simply a question of avoiding conflicts between policy objectives applying in the same area; it also requires us to identify and exploit opportunities for delivering objectives more effectively together. This will be particularly relevant to energy security and internal energy market policy; but is also of wider relevance to the full range of economic, social and environmental objectives, both within the EU and internationally. The need for coherence extends to the use of the EU Budget, with its commitments on a minimum level of climate expenditure, to the recent Jobs and Growth package announced by the Commission[4], and to similar economic stimulus packages at national level; the short-term impact of low carbon investment on economic activity are potentially significant. To put it simply, we need to take a wide view of what "cost effective delivery" looks like.
3. **Ensure that action taken to deliver the 2030 targets also helps us to stay on track for further decarbonisation commitments in the 2030-2050 period[5]**, consistent with long-term targets, and avoids stranded assets. This has implications in particular for the European Council's cost-effectiveness objective; some approaches to meeting the 2030 targets might involve investment in carbon-emitting energy infrastructure (e.g. Open Cycle Gas Turbine capacity, or energy efficiency improvements in power generation) which, while an improvement on the carbon-intensive capital it replaces, is nevertheless not consistent with the level of low-carbon infrastructure investment necessary to meet the significant further reductions required in the 2030s, 2040s, and beyond.
4. **Enhance public trust, and the confidence of key participants, in the policy-making and implementation process at EU and national level.** An approach which fails to address public concerns about potential costs and impacts on energy bills, or, conversely, which fails to respond to public concern about the threat of climate change and the delays in securing an effective global response, is unlikely to be sustainable. Transparency of information and analysis will be an important contribution to this objective; as will be the ability to develop a credible straightforward and honest narrative, avoiding the temptation of cheerleading for mitigation objectives.
5. **Add value to Member State energy policy, and avoid contradictions between energy policies adopted at Member State level within the wider EU framework**.

[4] See "EU launches Investment Offensive to boost Jobs and Growth" – European Commission Press Release, 26 November 2014 http://europa.eu/rapid/press-release_IP-14-2128_en.htm

[5] The commitment to an 80-95% reduction in emissions by 2050 is likely to require strengthening to at least the more demanding end of the range.

The European Council has signalled an interest in a wider drawing of the boundary around Member States' freedom to act on energy policy, with references to the importance of "Member States' freedom to determine their energy mix"; however, that freedom needs to be considered alongside, and mitigated by, the collective nature of EU environment policy, and the risks of Member States undermining or pre-empting the energy choices of others. It is difficult to see how the EU can collectively ensure a transition to a genuinely low-carbon economy if this "freedom" is treated as absolute. On the one hand, key infrastructure, particularly but not only in terms of connections, will serve a common or shared cross-border purpose; on the other, individual countries, by investing in relatively carbon-intensive energy infrastructure, could pre-empt the allocation of future EU carbon budgets, with the result either of a collective failure to decarbonise, or of a significantly higher cost of transition than necessary.

6. **Make effective use of EU ambition on climate mitigation to lever wider international action**. The EU is arguably less of a leader in global mitigation efforts than in the run-up to previous international negotiations. However, it remains true that the ultimate measure of success in EU climate policy, in reducing emissions with the objective of keeping climate change within manageable limits, is the concentration of greenhouse gases in the atmosphere; which in turn depends on mitigation efforts from other economies. While some argue that this means that EU mitigation efforts are largely irrelevant, given the scale of emissions and emissions growth elsewhere, a more rational approach is to see EU mitigation as having a dual purpose – both bringing EU emissions down to the level likely to be required by a successful international response to the challenge, but also helping to deliver earlier and more effective mitigation elsewhere. EU domestic mitigation efforts can do that in two ways – by helping EU negotiators inspire or bargain for reduction commitments from other parties (the more traditional and arguably now less relevant mechanism); or by helping to drive down the costs of low-carbon technology through early deployment and testing.

These objectives, in turn, suggest some important subsidiary ones, in particular:

7. **Enhance the predictability of government action, and the confidence of potential energy infrastructure investors in their return on investment**. The infrastructure necessary for an efficient, low-carbon economy (particularly in the energy and transport sectors) tends to be long-lived, and to have long payback periods. In order to secure early investment, Governments need to enhance investor confidence, and reduce their concerns over the risk of policy change. This is not only important in terms of ensuring that decarbonisation actually happens; it also helps to reduce the cost of low-carbon energy investment[6]. It is particularly relevant in Member States where an ageing energy infrastructure and lack of interconnections would even in the absence of climate objectives require significant investment in coming years. Policy uncertainty delays that investment.

[6] See the analysis by De Jager et al for the EC in "Financing Renewable Energy in the European Energy Market" (2011), suggesting cost reductions in the order of 10-30%.

8. **Enhance investment in grid and other infrastructure which facilitates cost-effective low-carbon investment now and in the future**. This is a subset of the policy coherence objective set out at 2 above; but an important one that risks being overlooked. The case for grid investment, including interconnection capacity, should not focus just on the immediate benefits in terms of more flexible energy supply, congestion management and energy security, but should also reflect its potential to unlock climate mitigation options, including enhanced deployment of intermittent renewables, and enhanced energy efficiency.
9. **Ensure the integrity of EU climate mitigation**. As noted above, meeting the EU's targets should be viewed as more than simply delivering a set of numbers required for the EU's emissions inventories; it should be aimed at delivering a genuine reduction in GHG emissions to the atmosphere. That means avoiding the use of biomass for energy that results in environmental and climate impacts in other economies; and it should also push policymakers to consider not just the EU's territorial emissions, but also its consumption emissions footprint. The European Council's conclusions also raise the possibility of some Member States transferring effort from the non-traded sector (transport, or agriculture) to the traded sector: it will be important to ensure that this does not lead to a dissipation of mitigation ambition, and that emissions under the ETS are in practice lower by an equivalent amount.
10. **Promote research and innovation**. The objectives of ensuring that mitigation policy contributes to economic growth, and of facilitating wider international action, both point to the potential benefit of a focus on R&D relating to breakthrough decarbonisation technologies. In particular, it will be important to ensure that EU and other Government-funded support to R&D makes an enhanced contribution to areas of research with potential for policy co-benefits in terms of mitigation (e.g. carbon capture and storage; electricity storage; 3rd generation biofuels); and that collective and Member State action on mitigation makes maximum use of such opportunities. The relatively bottom-up and technology neutral approach adopted by the European Council makes this more challenging to achieve, but it remains important, particularly for technologies such as CCS which are unlikely to become commercially viable without significant government funding to enable demonstration projects.

There are, no doubt, other objectives which could be developed, but these provide us already with material for commentary on the European Council principles set out above.

How the European Council's principles should be interpreted and supplemented

Cost effectiveness needs to be considered not in terms of cost minimisation, but in terms of the long-run costs of achieving EU collective ambitions on mitigation by 2050 and beyond. The advocates of technology neutrality often start from an assumption that placing constraints on technology choices is likely to prevent a market from reaching the lowest cost option. However, assessments on this point need to take into account the dynamic nature of mitigation trajectories, and the risk that low cost choices (or even failures to make choices) which deliver the 2030 targets may close off possible lowest-cost trajectories to the required reductions for 2040, 2050 and beyond. This may point to the need for early signalling from governments (either at EU or member state level) on the specific technology

choices needed, in order to facilitate the necessary investment. Long-run cost-effectiveness and short-run cost minimisation are unlikely to require the same choices; and delivery of an ambitious climate agenda may not be possible with a technology neutral approach.

There is a degree of ambiguity between the European Council's requirements that "**All Member States will participate in [delivery of the targets], balancing considerations of fairness and solidarity"**; and that the arrangements should "**Fully respect the Member States' freedom to determine their energy mix**". It is not unusual for the consensus-driven negotiating dynamic of the European Council to yield apparently contradictory statements; but early clarification of the balance between the two will be important:

- The choices possible for individual Member States in delivering either their energy targets, or in living within the proposed ETS cap to 2030, could have significant implications not just for their own costs, but also costs in other Member States, in delivering further emissions reductions in the following decades. For example, new coal and gas electricity capacity may be theoretically possible, given the free allocation decisions; but create a significant moral hazard problem, since not all of the costs of the future difficulty in reducing emissions within the ETS will be borne by the Member State responsible. We therefore need to view the Member State "freedom to determine energy mix" as being constrained by the need for fairness in future allocation of costs, and to keep open the possible least-cost trajectories to the EU's 2050 mitigation goals.

- The approach taken to implementing solidarity needs to avoid perverse incentives. The European Council conclusions include, for example, a key phrase on the energy efficiency target being developed "without preventing Member States from setting their own more ambitious national targets". It is unlikely that the more ambitious Member States, on energy efficiency as on climate, will want their ambition to be used to reduce the pressure for action on less ambitious Member States. It is as yet unclear how the new system will avoid such a perverse outcome, but it is important to address it.

"Facilitating coordination" and "**fostering cooperation**" between Member States, as suggested by the European Council as an aim for the new governance arrangements, are very light and voluntary-sounding approaches, not consistent with an approach which could realistically be described as an Energy Union. Both security of supply and decarbonisation of supply are likely to require significantly tighter cooperation; and there are real prospects for Member States passing on costs to their neighbours through a failure to cooperate. Governance arrangements should therefore, ideally, involve a greater degree of certainty that cooperation will happen in practice, either through binding requirements, or through sufficiently powerful positive incentives for Member States, in order to ensure that "**Delivery of the targets [does] not distort the internal market**", and in order to ensure fairness among Member States. While a process similar to the Semester process for delivery of the EU2020 targets would generate good visibility for Member State action and progress, and could help to provide appropriate prominence as part of Member States' wider economic policy-making, it is by no means clear that the semester process or other experiments in the "open method of coordination" genuinely create pressure on Member

States, or significantly improve the likelihood of targets and commitments being met[7]. The argument that this matter less for the energy targets than for the overall mitigation targets is a misleading one; in practice, energy and climate ambitions cannot be separated, particularly if decarbonisation is being considered in a long-term perspective, rather than simply the medium-term period to 2030.

"**There will be no new major implementation tools, the existing ones will be streamlined in a single reporting system**" – an approach which is consistent with the broader Juncker Commission preference for avoiding legislative proliferation, but which may conlict with the need to facilitate coordination and foster cooperation described above. A single reporting framework for Member States, requiring publication of progress against EU and nationally-determined targets, and clarity on the policies pursued could help to improve transparency; and should also help to ensure that Member States address questions of coherence between their broader mitigation goals, energy security, energy efficiency, and support for renewables or other low-carbon energy sources. It will, however, be important to consider what legislation needs to remain in place, bearing in mind the potential impacts on investor assessment of risk (for example, if either the energy efficiency or renewables directives and their provisions were removed from the legislative landscape, investor belief in legal stability could be damaged, and uncertainty would be generated about future pressure to legislate in these areas). There may also be issues which are seen by investors as likely to create problems of interpretation in future (for example, the extent to which Member States support schemes for renewables, or for provision of electricity generating capacity, apply across borders, and require a degree of regulation to ensure integrity of the internal market) and which are therefore contributing to uncertainty for investors now. Finally, there would be value in ensuring that Member State plans, and their reporting on plans, are sufficiently specific to provide the sort of clarity that the markets need; that there are clear incentives for Member States to deliver in accordance with their plans, to enhance the credibility of their policies and reduce policy risk for investors, and to ensure that any shortfalls can be addressed by a tightening of policies which benefit investors in low-carbon infrastructure. .

Implementation of the Energy Union goal will be subject to a regular review process: again, in principle, a welcome approach. However, regular review should not lead to regular changes of direction. A credible commitment to avoid future weakening of support regimes could provide valuable clarity by limiting downside risk for investors in low-carbon projects.

Conclusion: What are the major risks of the European Council approach? And what can be done to mitigate them?

The European Commission is currently considering which legislation to bring forward to implement the European Council conclusions. Rapid progress would be welcome, in reducing some of the uncertainty. Some co-decided legislation is clearly required: the changes to the Emissions Trading Scheme will need to be translated into changes to the ETS Directive, allowing co-legislators in the Council and the European Parliament to put detail

[7] See Client Earth's "Governance and the 2030 Framework" (2014) for an analysis of the issues.

on, for example, the free allocation provisions, and on the objectives and operation of the EU funds due to be financed by sales of a allowances. Similarly, the allocation of effort between Member States in the non-traded sector, and the flexibility opened up for Member States to transfer effort from the non-traded sector to the ETS, will require legislation. Issues which will need to be tackled in these proposals include:

- How to ensure the **integrity of EU mitigation effort**, and that it delivers real benefits in terms of GHG concentrations in the atmosphere (an issue of particular relevance to the Land Use and Transport sectors);
- How to ensure that **over-performance** by individual Member States[8] **does not create room for under-performance** by others, with consequent perverse incentives – an issue which is likely to require some form of indicative renewable and energy efficiency targets against which each Member State contribution can be assessed;
- How to ensure that changes involving adjustments to the ETS cap (for example, if Member States transfer effort from the non-traded sector) genuinely lead to a **reduction in the effective cap under the ETS**, rather than being dissipated as a result of the operation of the Market Stability Reserve.

The need for legislation on other aspects of the targets, particularly the looser energy targets, is as yet unclear; as is the future of the Energy Efficiency Directive and the Renewable Energy Directive. Strictly, an approach based on Member State plans, with no binding requirements on the nature of targets under those plans, does not require legislation. However, given that the ETS price is unlikely to drive the necessary investment[9], a number of risks arise in the absence of legislation specifying the requirements for plans:

- The risk of a **lack of coherence** between Member State approaches on energy efficiency, low carbon energy capacity, energy security.
- The risk that policies and plans set out in some plans will be **insufficiently specific to provide clear signals to energy markets**, and to investors.
- The risk of **optimism bias** in Member State plans, with insufficiently robust delivery leading to a failure to achieve the soft targets.
- The risk that **investors will be reluctant to finance projects**, due to perceived policy risks related to (i) lack of Member State commitment to delivery of soft energy targets; (i) future changes in Member State preferences (for example, as between nuclear and renewables); (iii) future internal market conflicts generated by different approaches to low carbon subsidy in a cross-border market.
- The risk that Member States focus on the minimum investments necessary to deliver the 2030 targets, regardless of whether they put their own energy system, or the EU energy system as a whole, on a **cost-effective trajectory to the further decarbonisation necessary** in future decades.

[8] The European Council conclusions make an important commitment to ensure that "Individual Member States are free to set their own higher national targets."

[9] Not only is the current market expectation of the ETS price insufficient to overcome the cost differentials between low-carbon electricity sources and, for example, gas, but there is a strong argument that even an ETS price based on a robust cap integrating the full externalities of carbon emissions would be insufficient to do more than optimise within the existing energy system, rather than deliver systemic change.

- The risk of significant wastage of financial and physical resource investment in **stranded carbon-intensive assets**.
- A **lack of clarity on the focus for the R&D and technology demonstration** needed to drive down future costs of decarbonisation in the EU, and a failure to exploit the potential of the innovation and modernisation funds proposed by the European Council.
- Perverse incentives based around **expectations of free allowances in the ETS**, both for individual installations, and for Member States; particularly if an expectation has been created that future targets will similarly be based on a consensus-driven European Council process rather than through co-decision.
- The risk of a **loss of momentum behind mitigation in the agriculture and transport sectors** as a result of effort being transferred to the traded sector;
- A **lack of coherence between sectoral approaches** under the effort sharing decision, and investment in electricity generating capacity – for example, if assumptions are made that transport abatement can be achieved through electrification, without a sufficient balancing level of investment in electricity generating capacity.
- A **failure to identify and exploit potential synergies** between grid operation, intermittent renewable electricity supply, and changes in demand patterns (including through electrification of the transport sector).

An initial response to many of these risks would be to ensure that an approach based on Member State flexibility is implemented in a way which does not lead to long-term uncertainty. While Member States' initial plans may be given some scope for variation, provided that they collectively aim to deliver change at least to the level required by the EU targets, the governance process could ensure that there are clear requirements (or incentives, linked for example to state aid flexibility, or to drawdown of EU funds) to stick to those plans. Ultimately, delivering the EU's long-term climate goals will require early investment in energy efficiency and low-carbon energy supply; and that investment in turn will require individual projects and individual interventions to be given sufficient impetus to happen. Mitigation is not, in granular practice, technology neutral; public policy needs to reflect that, while retaining a clear focus on the importance of long-run cost-efficiency[10].

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[10] There are a number of areas where further research and analysis could help to address some of the issues set out in this note. In particular, we think that work on the following subjects could be valuable:

- The scope for using the open method of coordination for delivery of energy targets;
- What European policy can contribute to securing a step change in delivery of energy efficiency;
- Optimising the potential for internal energy market improvements to help deliver an ambitious decarbonisation agenda
- The transport and agriculture sectors: their place in the EU 2030 target system, and the need to ensure integrity of mitigation.

IEEP would be happy to discuss the above issues with potential partners – please contact either Martin Nesbit (mnesbit@ieep.eu) at the London office, or Kamila Paquel (kpaquel@ieep.eu) at the Brussels office.