



Energy for
generations

EU Green Paper on a 2030 Framework for Climate and energy Policies

Response from ESB

Introduction

ESB is an integrated electricity utility with 1.4m supply customers and 3 million network customers in Ireland and Northern Ireland and 4,800 MW of generation in Ireland, Northern Ireland, Great Britain and Spain. ESB welcomes the opportunity to input into this important consultation.

The Electricity Industry is facing unprecedented uncertainty and challenges. This arises from climate change, market integration and general economic disturbance which taken together creates a requirement for an unprecedentedly high level of capital investment at a time when access to capital markets is challenging.

ESB agrees with the Commission that setting out a clear framework for 2030 and a clear direction through to 2050 is essential to provide clarity for investors required to meet the goal.

Our response below firstly reviews the priorities for energy policy then addresses the successes of the 2020 framework and the changes in the environment followed by the implications for the future direction,. Finally the specific questions in the consultation are addressed.

The Priorities

The Green paper lists the three priorities of energy policy: security of supply, competitiveness and sustainability. Each of these pillars has historically been considered to be of equal merit from an academic energy policy perspective – perhaps this should be reconsidered.

Security of Supply should be uppermost in our considerations in both long and short terms. Cost competitiveness should be considered next as without it we will see a gradual move of energy intensive industry towards trading blocks with lower energy prices. These policy areas have always been national competences because of their core importance although increasingly integrated energy markets are likely to move security of supply closer to Europe. Addressing Climate Change requires global action by all major trading blocks, and therefore the instruments we choose to address this should be compatible with the instruments and actions of these trading blocks.

We believe that this focus is essential in drawing lessons from the 2020 experience and looking forward to 2030 and 2050. Climate change mitigation cannot be viewed in isolation. It is closely interdependent with cost efficiency and security. Therefore the correct policy is one that marries these concerns in the most functional and elegant way.

Policy Success to Date

In framing policy for the future it is critical that we assess very carefully the decisions chosen in the past. Across the last decade Europe has sought to provide leadership in the global energy policy debate and particularly on Climate Change. The 20:20:20 package, the ETS Scheme, infrastructure investment and Market Integration regulations have been the policy cornerstones which have sought to underpin Europe's leadership. These policies have achieved much in that period, most notably they have provided a catalyst for RES development and ensured that the importance of energy efficiency as a policy instrument is fully understood. However there are lessons which Europe must learn if the success to date is to provide a platform for the future. This is all the more urgent given fundamental change in the global energy sector:

- The implications of the Shale Gas revolution in the US are now clear – US industry enjoys energy at less than half the cost of energy faced by European industry.
- The recent passing of the 400ppm threshold illustrates very clearly that Climate Change is a global challenge and that it must be addressed on a global level; it simply cannot be effected at European or national level. Indeed it can be plausibly argued that attempting to do so could make matters worse through carbon leakage and migration of energy intensive industries to carbon friendly territories.
- Security of supply in Europe remains deficient when compared to the other major trading blocks as we remain hugely reliant on imported fossil fuels subject to the risk of disruption to supply. In addition, our gas and electricity networks require significant investment to transport available supplies particularly between member states. Investment in electricity generation technologies carries with it scale, technology, policy and regulatory risk, creating real investment challenges.

Making the right choices for the future

These are complex questions which require fully reasoned analysis to resolve. The lessons from the 2020 framework must be learned and reflected in the outcomes arising from this Green Paper. In particular

- Energy policy objectives must be met at the lowest possible cost. This means adopting instruments that will drive cost efficiencies and competition into all aspects of the energy supply chain. Policy instruments and targets must be internally coherent within the EU and externally compatible with those instruments adopted outside of the EU.
- The need to take account of the level of effort of our international partners on climate change to avoid carbon and jobs leakage to the detriment of global action on Climate Change.
- Different countries within the EU have different opportunities to effect efficient emission reductions and to address Climate Change. This must be reflected at pan EU level. Some obvious examples include the availability of wind and wave resources in Ireland, the availability of solar resources in Southern Europe and the potential for energy savings in Eastern Europe. These opportunities taken together will help EU to achieve its overall targets. However each will have different cost implications for the country of origin and must be developed in a manner that safeguards the relative competitiveness of the host country and the absolute competitiveness of the EU as a whole.

Achieving decarbonisation of the EU economy by 2050 will be challenging, it will require courageous leadership and will undoubtedly need major investment on an unprecedented - but achievable – scale. It is imperative that this is achieved at least cost. We believe that a number of elements are required to achieve this:

What is required for EU climate and energy policy

An EU wide vision

As the 2020 and 2050 targets are – rightly – EU targets, the instruments chosen to solve these challenges must also have a strong and optimised EU-wide perspective. Low carbon technologies should be deployed where they are most economical. Multiple national targets and national schemes have brought us this far but are limited in what they can achieve in the future and will not provide the lowest EU-wide cost.

The current division between ETS and non-ETS sectors is inefficient. For example, in Ireland, the mitigation of a tonne of greenhouse gases in the non-ETS sector costs four times as much as mitigation of a tonne within the ETS¹. We suggest that it is unwise for the EU to, in effect, impose these extra costs.

Abatement methods for agriculture are still poorly understood. Food production is a strategic concern for the EU, with a concentration in a small number of member states. It is good policy for food to be produced where it is most economical to do so and not to force it to higher cost locations.

As well as the knowledge gap in greenhouse gas abatement in agriculture, CCS technologies are unproven and questions have arisen about the impact of biomass production on food prices. Intermittent renewables cannot decarbonise the energy sector on their own. Research, development and demonstration are required to address these gaps.

We favour

- An EU-wide Carbon target translating to a single economy-wide carbon price signal. The current division between ETS and non-ETS sectors is inefficient.
- A strengthened ETS as the main instrument driving choices in low carbon investment.
- Extension of the ETS to the non-ETS sector where practicable and the treatment of agriculture as a separate sector at EU level.
- Support for research development and demonstration projects to promote immature technologies of commercial potential.

¹ Irish Times Systems Model, Ó Gallachóir et al. Environmental Protection Agency (2012),

The transition to low carbon

The energy sector is engaged in a major transition to a low and ultimately zero-carbon future. Massive investment in generation capacity and in infrastructure is required to achieve this. Such investment will only be forthcoming if investors can see a return on their capital. While our general preference is for a markets based approach to energy policy we recognise that during this transition financial supports may be required for specific technologies in specific circumstance. However great care should be exercised to ensure that a one size fits all policy at EU level does not have unintended consequences at national level. Take RES as an example. By 2020, each EU member state will have achieved its national RES targets arising from the EU20:20:20 requirements. In the case of Ireland, around 40% of Ireland's electricity will by 2020 be generated from a range of investments in intermittent RES-E, almost all of which will have been developed on the back of financial support arrangements underpinned by Irish electricity customers. This scale of penetration of intermittent asynchronous generation is at the forefront of international experience and is likely to be at the margins of what is currently technically achievable in terms of RES-E integration. Of even greater importance, it means that the price of a significant volume of Ireland's electricity will be fixed price in nature, and potentially fixed at a price which may be out of the market in future years. Taking all of that together, a future EU policy which mandates a RES-E penetration in Ireland of greater than 40% may not be achievable and may not be in the interest of Irish consumers, accordingly further national RES targets should only be considered if the evidence base is demonstrably clear.

Questions in the Consultation

General

The 2020 package was a new departure for the EU. There have been some successes and also some important learning that needs to be acted on for 2030:

- Emissions within the EU ETS have stayed within the cap imposed. Notwithstanding current concerns about a low price level, the EU ETS with its EU-wide carbon price has served as a model for action towards a single purpose across the EU and in the most economical manner.
- The non-ETS sector has been less successful. The EU does not have an economy-wide price for carbon. Instead member states have been obliged to ‘buy’ savings or to impose obligations on energy suppliers in order to pursue targets. The non-ETS sector requires EU level action driven by a carbon price to achieve the carbon target in the most economical manner.
- Challenging areas such as agriculture and transport need to be addressed EU-wide and at EU level. Emissions standards for transport can only be set at EU level, meaning that member states should not be held accountable for transport emissions. An EU-wide carbon price should be used to marry investment to the most economical opportunities overall.
- This is a particular issue for Ireland. Latest projections indicate that agriculture will form 48% of Ireland’s non-ETS emissions by 2020². Transport, will represent another 30%. This leaves only 22 % of Ireland’s non-ETS emissions amenable to mitigation measures in the short to medium term. The consequence is a cost of mitigation for a tonne of greenhouse gases in the non-ETS sector four times that in the ETS sector³. At a time when competitiveness is a primary concern, all sectors of the European economy should be subject to a common carbon price.
- For agriculture in particular, we advocate that this, a traditional EU policy area, be treated as a separate sector at EU level. Otherwise carbon leakage within the EU will result and food production will move to member states that are less efficient at producing it.

² Ireland’s Greenhouse Gas Projections 2012 – 2030. Environmental Protection Agency

³ Irish Times Systems Model, Ó Gallachóir et al. Environmental Protection Agency (2012),

Targets

- We favour an EU-wide Carbon target translating to a single price for carbon across the EU and the ETS and non-ETS sectors.
- ESB broadly favours market-based approaches rather than subsidy-driven developments. The principle should be that energy sector subsidies should be progressively phased out for commercially mature technologies, while respecting existing contracts.
- We do not favour an energy efficiency target. As energy efficiency is at the lowest end of the carbon abatement cost curve, the ETS, together with tighter EU efficiency standards on new equipment and buildings, should be relied upon to drive action here. For existing buildings and plant, carbon pricing will ultimately drive carbon efficiency.
- While energy efficiency is important in the transition to a low carbon economy, its application under the Energy Efficiency Directive requires urgent review. The programmes driven by the Directive see a switch to biomass or to electricity - the '2050 fuels' identified in the low carbon roadmap – as a loss of efficiency. In the case of biomass, this is because the boilers are less efficient than gas boilers. In the case of electricity, the calculation uses today's⁴ carbon content and not the target values in the roadmap⁵. In this way, consumer fuel choices are influenced towards fossil fuels, causing carbon 'lock in' for 20 years or more. A new EU-wide approach, compatible with the low carbon roadmap, is required.
- In general, we do not favour further sub targets.

Instruments

- We favour a strong ETS driving an economy-wide carbon price.
- We believe an EU level price for carbon extending to all sectors is required to achieve carbon reductions with least impact on competitiveness. The current mix of policies add cost and cannot achieve an efficient result as carbon targets become more demanding.
- EU emission and efficiency standards for new vehicles and new appliances need to be progressively tightened as required in order to achieve the necessary greenhouse gas reductions
- For agriculture in particular, we advocate that this, a traditional EU policy area, be treated as a separate sector at EU level. Otherwise carbon leakage within the EU will result, causing food production to move to less efficient locations.

⁴ Each member state uses a different calculation. Some member states use a standard value for electricity fossil fuel content that does not take account of renewable generation

⁵ 'Primary Energy Factors for Electricity in Buildings', Molenbroek et al, Ecofys, 2011

- These difficulties are evidenced in particular in Ireland with the result that the local cost of mitigation within the non-ETS sector is high.
- Research, development and demonstration funding will be required. This should be deployed where most advantageous depending on the importance of the issue, the quality of projects and the early existence of field conditions that will be experienced elsewhere in the future.

Competitiveness and security of supply

- Competitiveness is a key concern across the EU and policies must reflect cost-efficiency in how climate and energy policy goals are achieved:
- ESB favours an EU-level carbon target for 2030. However the EU policy must take account of the extent of global carbon mitigation efforts
- Setting a single carbon price and providing funding for R D and D and to support the rollout of innovative technologies will achieve decarbonisation at the lowest cost.
- The EU should press ahead with interconnection, especially for relatively isolated parts of the EU.
- Unconventional gas should be pursued within existing environmental guidelines. Sources of gas should be diversified.

Distribution of Effort across the EU

As outlined above, Member States vary widely in their capacity – financial or in terms of potential - to effect reductions. Developments and uncertainties will also come into play. We don't believe that a centralised, top-down, effort-sharing structure, agreed at one point of time, can achieve the reductions. It is certain that it would not achieve the reductions in the most economical manner or in the best manner to retain public support across Europe.

For this reason, pricing mechanisms built around the agreed EU-wide carbon target must be used. As described above, we advocate a strong ETS and a carbon price signal across the entire EU economy. This will ensure that the best and most economical savings opportunities are realised across the EU.

The non-ETS sector, in particular, requires an EU level approach given the importance of agriculture within the EU and the importance of EU competencies such as product standards in determining the level of mitigation that can be achieved.

In particular, the energy performance of buildings directive and the ecodesign requirements directive and directives on vehicle emissions must be thoroughly implemented and progressively tightened.