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GREEN PAPER

A 2030 framework for climate and energy policies

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1. INTRODUCTION

The EU has a clear framework to steer it's energy and climate policies up to 2020. This framework integrates different policy objectives such as reducing greenhouse gas emissions, securing indigenous energy supply and supporting growth, competitiveness and jobs through a high technology, cost effective approach. These policy objectives are delivered by three headline targets for greenhouse gas (GHG) emission reductions, renewable energy and energy savings. There are additional targets for energy used by the transport sector. In parallel, the EU has put in place a regulatory framework to drive the creation of an open, integrated and competitive single market for energy which promotes the security of energy supplies. While the EU is making good progress towards meeting the 2020 targets, creating the internal market for energy and meeting other objectives of energy policy, there is a need now to reflect on a new integrated policy framework for climate and energy policies for the period up to 2030. Early agreement on the 2030 framework is important for three reasons:

- First, long investment cycles mean that infrastructure funded in the near term will still be in place in 2030 and beyond and investors therefore need certainty and reduced regulatory risk.
- Second, clarifying the objectives for 2030 will support progress towards a competitive economy and a secure energy system by creating more demand for efficient and low carbon technologies and spurring research, development and innovation, which can create new opportunities for jobs and growth. This in turn reduces both directly and indirectly the economic cost.
- Third, while negotiations for a legally binding international agreement on climate mitigation have been difficult, an international agreement is still expected by the end of 2015. The EU will have to agree on a series of issues, including its own ambition level, in advance of this date in order to engage actively with other countries.

This framework for 2030 must be sufficiently ambitious to ensure that the EU is on track to meet longer term climate objectives. But it must also reflect a number of important changes that have taken place since the original framework was agreed in 2008/9:

- the consequences of the on-going economic crisis,
- the budgetary problems of Member States and businesses who have difficulty mobilising funds for long term investments;
- developments on energy markets and the concerns of households about the affordability of energy and of businesses with respect to competitiveness;
- the state of availability of emerging technologies;
- and the varying levels of commitment and ambition of international partners in reducing GHG emissions.

The 2030 framework must draw on the lessons from the current framework: what has worked, what has not worked and what can be improved. And it must identify how best to maximise synergies and deal with trade-offs between the objectives of competitiveness, security of energy supply and sustainability.

The framework should also take into account the longer term perspective which the Commission laid out in 2011 in the roadmaps for moving to a competitive low carbon economy in 2050, the Energy Roadmap 2050, and the Transport White Paper. These Roadmaps were developed in line with the objective of reducing GHG emissions by 80 to 95% by 2050 compared to 1990 levels as part of necessary efforts by developed countries as a group. The scenarios in these Roadmaps suggested the following key findings:

- By 2030 greenhouse gas emissions would need to be reduced by 40% in the EU to be on track to reach a GHG reduction of between 80-95% by 2050, consistent with the internationally agreed target to limit atmospheric warming to 2°C.
- Higher shares of renewable energy, energy efficiency improvements and better and smarter energy infrastructure are "no regrets" options for transforming the EU's energy system.
- For renewables, the energy scenarios in the Energy Roadmap 2050 indicate a share of around 30% in 2030.
- Energy prices are forecast to increase in the period up to 2030 with or without significant decarbonisation because of the investments which are needed in the energy system.

The aim of this Green Paper is to consult stakeholders to obtain evidence and views to support the development of the 2030 framework. It begins with an overview of the current framework and what has been achieved and then presents the issues where stakeholder input is sought. In parallel, the Commission is consulting on issues relating to the international negotiations of a new legally binding agreement for climate action as well its policy to enable the demonstration of the carbon capture and storage technology[1].

2. THE CURRENT EU POLICY FRAMEWORK AND WHAT HAS BEEN ACHIEVED

The current policy framework has at is centre three headline targets to be achieved by 2020: (1) an EU based target for GHG emission reductions of 20% relative to emissions in 1990; (2) a 20% share for renewable energy sources in the energy consumed in the EU with specific target for the Member States; (3) 20% savings in energy consumption compared to projections. In addition, there are specific 2020 targets for renewable energy for the transport sector (10%) and decarbonisation of transport fuels (6%). The framework also recognises Member States' different energy mixes, economic wealth and capacity to act, and therefore includes mechanisms to ensure a fair distribution of effort between them. It includes measures to address the risk of carbon leakage and its impacts on energy-intensive industry sectors. The framework for 2020 is complemented by the Energy 2020 Strategy[2] which assesses the challenges and measures to ensure a competitive, sustainable and secure energy system.

2.1. The 20% GHG reduction target and implementing measures

The 20 % GHG reduction target for 2020 compared to 1990 is implemented through the ETS and the Effort Sharing Decision which defines reduction targets for the non-ETS sectors, and its achievement is supported through EU and national policies to reduce emissions.

The ETS delivers a uniform carbon price for large industrial installations, the power sector and in the aviation sector. It covers more than 10.000 installations and nearly 50% of all EU GHG emissions. This uniform price ensures that climate goals are met cost-effectively and that business across the EU has a level playing field. The carbon price is now part of EU

[1] *Insert references and links to the documents and web sites…..*

[2] COM(2010) 639 final

businesses' operational and investment decisions and has contributed to substantial emissions reductions. But it has not succeeded in being a major driver towards long term low carbon investments. Despite the fact that the ETS emission cap decreases to around -21% by 2020 compared to 2005 and continues to decrease after 2020, in principle giving a legal guarantee that major low carbon investments will be needed, the current large surplus of allowances, caused in part by the economic crisis, prevents this from being reflected in the carbon price. The low carbon price is not providing investors with sufficient incentive to invest and increases the risk of "carbon lock-in". Some Member States are concerned with this evolution and have taken, or are considering taking national measures, such as taxes for carbon intensive fuels in ETS sectors. There is an increasing risk of policy fragmentation threatening the Single Market, with national and sectoral policies undermining the role of the ETS and level playing field it was meant to create. The Carbon Market Report assesses in more detail the functioning of the ETS[3].

The Effort Sharing Decision (ESD) sets national targets for GHG emissions in the sectors not covered by the ETS. The aggregate target is a 10% emission reduction at EU level in 2020 compared to 2005. Many EU policies, including sector specific legislation and initiatives, have contributed to reducing emissions in these sectors. They range from policies that improve CO_2 and energy efficiency for cars, the residential sector and energy consuming equipment, to specific waste, agricultural and environmental policies (see annex). The implementation of policies to achieve the renewables and energy efficiency target also contributes to emissions reductions. National targets are distributed between Member States according to economic capacity. Some need to reduce emissions compared to 2005 whilst others are permitted a limited growth in emissions. In aggregate the EU is on track to achieve the 10 % reduction target, but significant differences exist between Member States. Half of them still need to take additional measures. Additionally the ESD enables Member States to meet their targets flexibly, be it through the acquisition of international credits or through trade with Member States outperforming their targets.

2.2. The renewable energy target and implementing measures

The EU is making progress towards meeting the 2020 target of 20 % renewable energy in gross final energy consumption. In 2010, the renewables share in the EU was 12.7 % compared to 8.6 % in 2005. In the period 1995-2000 when there was no regulatory framework, the share of renewable energy grew by 1.9% a year. Following the introduction of indicative targets (2001-2010), the share of renewable energy grew by 4.5% per annum. With legally binding national targets growth has increased but needs to average 6.3% per year to meet the overall 2020 target. The share of renewables in transport reached 4.7% in 2010 compared to only 1.2 % in 2005. In the heating sector, renewable energy continues to grow and its share should nearly double by 2020. However, new measures will be needed for most Member States to achieve their 2020 targets reflecting the scaling back of support schemes and more difficult access to finance in the context of the economic crisis.

The Commission provided a state of play on renewable energy in the EU in 2012[4]. An updated progress report is published alongside this Green Paper. Investments in research and development, innovation and large scale deployment in the sector have contributed to significant reductions in the cost of renewable energy technologies. There are key challenges associated with large scale deployment such as the full integration of renewables into the EU's electricity system in a way that deals with intermittency, and improving co-operation among

[3] Carbon Market Report COM(2012) 652. The report consults on possible ways of addressing the surplus of allowances in the ETS including a widening of the sectors it covers.

[4] Communication on Renewable energy COM(2012) 271.

Member States in meeting targets. The coupling of the EU's wholesale electricity markets will help to integrate renewable energy into the electricity system as will the roll-out of smart grids which provide opportunities to adapt generation, grid control, storage and consumption to the changing situation on markets. However, massive investments in transmission and distribution grids will also be needed to accommodate renewable energy. Another important challenge is the use of *support schemes* which should be designed to avoid overcompensation, improve cost efficiency, encourage high GHG reduction, strengthen innovation, to be adaptable to cost developments to avoid subsidy dependence and be consistent across Member States.

2.3. The energy savings target and implementing measures

The 2020 target of saving 20% of the EU's primary energy consumption (compared to projections made in 2007) is not legally binding for Member States, but significant progress has nevertheless been made. After years of growth, primary energy consumption peaked in 2005/2006 (around 1825 Mtoe) and has been slightly decreasing since 2007 (to reach 1730 Mtoe in 2011). This trend is partly due to the economic crisis and partly due to the effectiveness of existing policies. It is also due to reduced energy intensity of EU industry which was 149 toe / mEUR in 2010, down from 174 in 2000 and 167 in 2005.

With the adoption of the Energy Efficiency Directive (EED) in 2012 there is now a comprehensive legislative framework at EU level. This needs to be fully implemented by Member States. The EED will help to drive progress in this area, although the Commission's preliminary analysis suggests that with current policies the 2020 target will not be met.[5] The lack of appropriate tools for monitoring progress and measuring impacts on the Member State level is part of the problem. Another major challenge is to mobilise the funds needed to ensure continued progress.

Since 2009-2010, implementing measures have been adopted under the Ecodesign and Energy Labelling Directives on energy related products. These measures reduce the energy demand of industrial and household products leading to savings for end-users. Measures have been adopted for a number of electronic appliances, including domestic dishwashers, refrigerators, washing machines, televisions and tyres as well as industrial products such as motors, fans and pumps. It is estimated that the ecodesign and labelling measures will produce energy savings in the range of xxxx Mtoe in 2020 [*ENER to provide the aggregate number from impact assessments*].

To address the energy consumed in the residential and non-residential building sector, the EU adopted a revised Energy Performance of Buildings Directive in 2010. Besides the obligation for Member States to apply minimum energy performance requirements for new and existing buildings, the Directive requires them to ensure that by 2021 all new buildings are "nearly zero-energy buildings." However, delays and incomplete national measures to implement this directive risk undermining the necessary contribution of the buildings sector towards lower GHG emissions and reduced energy consumption[6].

In the transport sector, the Regulations establishing performance standards for light duty vehicles have led to substantial reductions in GHG emissions reflected in the fleet average CO_2 emission of new cars from 172 g per kilometre in 2000 to 135.7 g per kilometre in 2011.

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5 The implementation of measures in the Transport White Paper, further ecodesign measures, smart metering roll-out and smart grid deployment with the resulting demand response should contribute to closing the gap.

6 The Impact Assessment for the revised EPBD indicates potential energy savings of 5-6% of EU final energy consumption by 2020.

2.4. Security of supply and affordability of energy in the internal energy market

The 2009 climate and energy package is not the only work stream in this area. In 2009 and 2010, the EU adopted comprehensive legislation on the internal energy market for electricity and natural gas and, in the wake of two gas supply crises, the Regulation on security of gas supplies. The Commission has also proposed a Regulation on Trans-European Energy Infrastructure Guidelines on which political agreement has been reached by the European Parliament and by Council. It streamlines regulatory provisions and reduces the time for permit-granting. It addresses infrastructure challenges to ensure true interconnection in the internal market, and includes measures to encourage a technological shift through development and demonstration projects for the main technologies: second generation biofuels, smart grids, smart cities and intelligent networks, carbon capture and storage, electricity storage and electro-mobility, next generation nuclear and renewable heating and cooling. Consideration should be given to whether a similar approach is necessary for carbon capture and storage technologies. In early 2013, the Commission also proposed a directive on the deployment of alternative fuels infrastructure which will be supported by the proposed revision of the TEN-T Guidelines.

A number of challenges were not addressed at the time of the 2009 climate and energy package. For example, the necessary transmission and distribution infrastructure were not defined. The management challenges linked to the introduction of renewables, including dealing with the variable supply of certain renewables (e.g. wind and solar) were also not fully considered and the impact of 27 different national support schemes for renewables on market integration was underestimated.

The Third Energy package addressed the issue of how to stimulate competition on the market, but did not address the issue of whether the market offered the necessary incentives to invest in generation, distribution and transmission, and storage capacity in a system with greater shares of renewables. Until renewable energy sources become cost-competitive, the objective of a more sustainable energy system must be balanced against the need for a fully liberalised and integrated energy market capable of mobilising and allocating investment efficiently.

3. KEY ISSUES FOR THIS CONSULTATION

The 2030 framework for climate and energy policies will build on the significant progress already made in this area. It must draw on the lessons from the current framework and identify where improvements can be made. The experience and views of stakeholders, backed up where possible with sound evidence, are essential on four broad issues: targets; other policy instruments; competiveness; and the different capacity of Member States to act.

3.1. Targets

Fundamental issues for a new 2030 framework for climate and energy policies relate to the types, nature and level of targets and how they interact. Should the targets be at EU, national or sectoral level and be legally binding? There are diverging views on the need for targets and types of targets. While experience with the current framework shows that targets provide political momentum, a long term vision for investment, and a benchmark for measuring progress, some stakeholders argue that the existing targets and policies to reach them are not necessarily coherent or cost efficient, or that they do not take competitiveness and the economic viability and maturity of technologies sufficiently into account. There is a need, therefore, to assess which targets can best, and most simply and cost effectively, drive energy and climate policies up to 2030, and whether the current approach can be streamlined particularly with reference to the need for various sub-targets such as those in the transport sector. This analysis should also address the issue of whether having only a GHG emissions

target for 2030 would be appropriate, taking into account other objectives such as security of supply and competitiveness.

The current climate and energy targets for GHG reduction, the share of renewable energy sources and energy savings were designed to be mutually supporting and there are indeed interactions between them. Higher shares of renewable energy can deliver greenhouse gas reductions so long as these do not substitute other low-carbon energy sources while improved energy efficiency can help reduce greenhouse gas GHG emissions and facilitate attainment of the renewables target easier. There are obvious synergies but there are also potential trade-offs. For example, more than anticipated energy savings and greater than expected renewable energy production can lower the carbon price by weakening the demand for emission allowances in the ETS. This in turn can weaken the price signal of the ETS for innovation and investments in efficiency and the deployment of low-carbon technologies whilst not affecting attainment of the overall GHG reduction target.

A 2030 framework with multiple targets will have to recognise these interactions explicitly. It should also recognise that higher shares of renewable energy sources and greater energy savings will not alone ensure greater competitiveness or security of supply. Dedicated policies will remain necessary and there may also be a need for additional indicators that more directly capture these objectives.

There is a broad consensus that interim targets for GHG emissions reductions will be necessary to reach the aspiration of an 80-95% reduction by 2050. The key issue is deciding on the most appropriate level for such an intermediate target. The 2050 roadmaps suggest that a 40% reduction in emissions by 2030 compared to 1990 would be cost-effective. A reduction of less than 40% would increase the costs of decarbonising the economy over the longer term. While the roadmaps suggest that GHG reductions of 40% by 2030 can be achieved without unduly increasing the costs for our energy system, mobilising the funds necessary to cover the capital costs for significant up-front investments will, however, be a challenge.

The Energy Roadmap for 2050 has shown that the share of renewables in the energy system must continue to increase after 2020. A 2030 target for renewables would have to be carefully considered as renewables in this time frame will no longer be in their infancy and will be competing increasingly with other low-carbon technologies. Consideration should also be given to whether an increased renewable share at EU level could be achieved without a specific target but by the ETS and regulatory measures to create the right market conditions. The shape of a possible renewables target will depend on (i) whether a target is considered necessary to ensure increased shares in renewables post 2020 and thereby contribute to more indigenous energy sources, reduced energy import dependence and jobs and growth; and (ii) if and how this can be achieved without unacceptable impacts of renewables support schemes on energy markets and energy prices and public budgets. It must be established whether objectives on renewable energy can be best met with a new headline target with or without sub-targets for sectors such as transport, industry and agriculture, and/or other specific measures. Any target or policy for renewables will have to take into account the growing evidence-base on sustainability, costs, and the state of maturity of technologies.

The EU framework for energy efficiency policy has just been updated through the adoption of the EED and a review will be carried out in 2014 with respect to the 2020 target. Discussions on a 2030 energy savings target must be seen in this context. There are a number of issues to consider. First, energy efficiency, and the resulting energy savings, are acknowledged in the Energy Roadmap 2050 as a "no-regrets" option for the energy system. While evidence on how the current system is performing will not be fully available until 2014 or later, ensuring consistency of a possible energy savings target with any other targets will be essential.

Consideration will also have to be given to whether progress on energy efficiency would best be driven by targets for Member States or by sector specific targets.

It will also be necessary to consider if the metric for such a target should continue to be absolute energy consumption levels or whether a relative target related to energy intensity would be more appropriate (e.g. energy consumption relative to GDP or gross value added). While an absolute target might better ensure the overall savings objective, a relative target might better take into account the dynamics of the EU economy and the reality of economic development.

Unlike for GHG emissions reductions and renewables, the current approach to energy efficiency is based on a combination of aspirational targets and binding measures. The need for EU legislation (e.g. ecodesign framework, the EED, the EPBD) under the 2020 framework is linked, at least partially, to the absence of legally binding energy savings targets for Member States. Any legally binding target for energy savings/intensity would need to leave room for manoeuvre for Member States for meeting the target with possibly fewer binding measures at EU level. However, such an approach would have to take into account that much of the EU legislation which contributes to reduced energy consumption also plays a fundamental role in creating the internal market for these products (e.g. the ecodesign framework). If targets remain aspirational, consideration will have to be given to whether current concrete measures are sufficient or whether new measures would be necessary. A key issue will be to what extent energy markets, through the price signal and demand response, will themselves sufficiently incentivise energy efficiency improvements, and whether the ETS and its impact on electricity prices will provide incentives for energy savings also in the absence of specific targets or measures. The relatively low price elasticity of energy demand in many important sectors of the economy and projected future levels will have to be taken into account.

3.2. Coherence of policy instruments

The 2020 targets are implemented through policy instruments at EU level which are closely related to the internal market. Member States have larger room for manoeuvre when implementing EU legislation e.g. for renewable energy and energy efficiency, and GHG emissions outside the ETS such as in the road transport sector. This has resulted in different national approaches for renewables support schemes, energy and CO_2 taxation, energy performance standards for buildings and other energy efficiency policies.

A combination of instruments is likely to be needed to address the different policy goals and market barriers. These instruments will interact with one another as described above. Some stakeholders have criticised the lack of overall consistency between policies because of such interactions and have pointed to the need to improve the cost-efficiency of various climate and energy measures. In addition, some national measures risk leading to fragmentation of the internal energy market.

The 2030 policy framework should, therefore, strike a balance between concrete implementing measures at EU level and Member States' flexibility to meet targets in ways which are most appropriate to national circumstances. The current balance of the approach between EU level instruments and Member States targets/national instruments will have to be assessed in more detail. As before, the distribution of efforts will need to be considered as well.

Future access to international credits after 2020 will need to be assessed. The use of international credits can limit costs but they also contribute to uncertainty on what is required

domestically, and have contributed to the surplus of allowances in the ETS. Furthermore, EU industry and governments via the CDM have subsidised competing sectors especially in emerging economies such as in China, India and Brazil. Shifting away from project-based offsets towards emission trading and other market mechanisms might better incorporate the different capacities of countries to act on climate change.

3.3. Fostering competitiveness of EU industry

One of the fundamental objectives of EU energy policy is to ensure that the energy system contributes to the competitiveness of the EU economy by ensuring competitive domestic and international energy markets and prices which are internationally competitive and represent affordable energy for final consumers. This is especially important for vulnerable households and industry sectors that are exposed to international competition and for which energy is an important production factor. As the role of electricity is expected to increase during the transition of the energy system, electricity costs are of particular importance in a 2030 perspective. Energy and climate policies can drive demand and growth in the low carbon economy. The EU is a frontrunner in clean and more energy-efficient technologies, products and services and eco-technologies which together are expected to generate some 5 million jobs in the period up to 2020[7]. At the same time, the policies have been criticised for having a negative impact on energy prices and the competitiveness of energy intensive sectors even though they may reduce industry's exposure to energy costs and improve resilience to energy price peaks.

While wholesale energy prices have increased moderately in the EU, there is evidence that end-user prices of electricity for many business and households have increased more significantly in real terms over the last decade. The Energy Roadmap 2050 suggests that this trend will continue in the future. Developments in international markets and exploitation of unconventional hydrocarbons may lead to an increasing divergence of prices in the EU compared to those in other major industrial economies such as the USA where shale gas is now an increasing energy source. It is clear that this trend is driven by many factors other than the EU's climate and energy policies and that EU wholesale electricity prices are still determined to a large extent by the price of fossil fuels. Member State decisions on tariffs, levies and taxes also have a significant impact on end user prices. These factors must be taken into account when designing new policies. The various drivers of national energy costs including taxation need to be analysed in a differentiated manner as their impact on overall energy production costs appears to differ greatly. A number of issues need to be addressed in this context.

First, full implementation of the internal market legislation is critical to keep prices in check and help meet targets cost-effectively, both by means of increased competition in the market and by more efficient use of energy infrastructure (by means of the Network codes).

Second, there is a need to address the future exploitation of indigenous sources of gas within the EU, both conventional and unconventional.

Third, further diversification of energy supply routes could improve competition on energy markets and significant long-term savings can be achieved by investments in energy efficiency. Further deployment of renewable power generation must be accompanied by improved management of grids, reduced costs of technologies and continued support for innovation.

Fourth, concerns have been expressed that the EU's commitment to tackling climate change is not fully reciprocated elsewhere, and that this has an impact on competitiveness. At the same

[7] Insert reference

time, the Union's commitment to reduce GHG emissions by 20% by 2020 contributed to the progress made since the 2009 Copenhagen Climate Conference. Around 90 countries have now adopted pledges with varying degrees of ambition. The international community has also endorsed the objective to limit global warming to 2°C. In addition, several countries are implementing or developing legislation for their own emissions trading system (Switzerland, Australia, New Zealand, South Korea, China and several US states). Notwithstanding these developments, the EU's offer of a conditional target of 30% GHG reductions has not mobilised pledges and actions that would ensure that aggregate efforts by 2020 are in line with the 2°C objective. Hence, the crucial need to engage further with third countries, and for the Durban Platform to deliver an agreement by 2015 on post 2020. This is all the more important given that the EU represents only 11 % of global GHG emissions and that this share is decreasing so that effective international action is required to tackle climate change.

Fifth, EU efforts in sectors such as aviation and maritime are contributing significantly to progress in the International Civil Aviation Organisation and the International Maritime Organisation, and efforts in these organisations to tackle climate change will be pursued.

Fifth, it is clear that higher ETS prices and policies to expand renewables generation capacity by providing support or preferential treatment to bring them to the market could increase electricity prices. At the same time, the ETS creates a level playing field in the EU and minimises GHG reduction costs in the covered sectors. The ETS also includes measures to limit impacts on the competitiveness of energy intensive sectors which are exposed to the risk of carbon leakage. These sectors will continue to receive free allowances until 2020. Given the build-up of free allowances in industrial sectors and the access to cheap international credits, the impact on these sectors is likely to be modest at least up to 2020. For a limited set of electricity-intensive sectors, specific state aid is also possible. The 2030 framework will need to consider whether and how this approach should be continued.

Finally in designing a framework for 2030 consideration should be given to whether ETS auction revenue could be used to further assist sectors to innovate. At present this option is mainly driven through Member States' use of auctioning revenues within the allowed boundaries of state aid provision, even though the existing framework does foresee innovative Union finance in the form of the NER300 limited to renewable energy and carbon capture and storage projects.

3.4. Acknowledging the differing capacity of Member States

Member States are very diverse in terms of comparative wealth, industrial structure, energy mix, building stocks, carbon and energy intensity, and exploitable renewable resources. This diversity must be taken into account when developing a policy framework for 2030. Climate and energy targets impact each Member State differently and options to enable effective cooperation and an equitable sharing of the required efforts will need to be assessed as part of the new framework.

The current energy and climate policy framework reflects the differing capacities of Member States by sharing the effort of reaching Union climate and energy targets amongst the Member States, with a lighter burden falling on lower income Member States. Auctioning revenues are also partially redistributed to compensate for cost differences. There are also cooperation mechanisms in the Renewable Energy Directive that enable renewable energy produced in one Member State to count towards the target of another. However, despite the potential economic benefits for both sides this scheme, with the exception of Sweden and Norway, has not been used so far. To take into account national circumstances, the Energy Efficiency Directive provides a "menu" of flexibilities that Member States can apply to their 1.5% yearly saving targets including a gradual phase-in of the 1.5% target, exclusion of the

ETS sector, inclusion of the energy transformation and distribution sector and recognition of early action. These flexibilities can be used cumulatively but must not undermine the overall energy savings required by the Directive.

There is a need to consider whether for the 2030 framework, similar distribution tools should be maintained or whether, depending on the ambition level and nature of future targets and measures, alternative approaches are necessary. Whilst possibly working against the objectives of the internal energy market, differentiated targets per Member State can improve fairness, but can also increase the overall costs to meet the objectives if they are not coupled with sufficient flexibility in meeting them, such as trading mechanisms. Any 2030 framework will need to consider if sufficient flexibility exists between Member States to allow cost efficient achievement of differentiated targets. In this context, it should also be considered that those Member States where investments are most needed and with the most options available for cost-effective GHG emission reductions, renewables development, energy efficiency improvements etc. often have less economic capacity to take advantage of them. Moreover, some of these Member States face difficulties in obtaining sufficient support for changes of industrial processes and energy use that could impact jobs and reliance on domestic energy resources. Access to finance for investments, be it through direct funding or smart finance, is already part of the existing toolbox of EU policies but may have to be enhanced in a 2030 perspective. Such measures could contribute to a fair and equitable sharing of effort, while at the same time facilitate public acceptance and engage all parties concerned in the transition to a sustainable, secure and competitive economy.

Member State-specific information will need to be prepared and presented as part of the new framework in order to inform discussions about the equitable distribution of effort and to ensure that an undue burden does not fall on any Member State.

4. QUESTIONS

4.1. General

- Which lessons from the 2020 framework and the present state of the EU energy system are most important when designing policies for 2030?

4.2. Targets

- Which targets for 2030 would be most effective in driving the objectives of climate and energy policy? At what level should they apply (EU, Member States, or sectoral), and to what extent should they be legally binding?
- Have there been inconsistences in the current 2020 targets and if so how can the coherence of potential 2030 targets be better ensured?
- Are targets for sub-sectors such as transport, agriculture, industry appropriate and, if so, which ones? For example, is a renewables target necessary for transport, given the targets for CO_2 reductions for passenger cars and light commercial vehicles?
- How can targets reflect better the economic viability and degree of maturity of technologies in the 2030 framework?
- How should progress be assessed for other aspects of EU energy policy, such as security of supply, which may not be captured by the headline targets?

4.3. Instruments

- Are changes necessary to other policy instruments and how they interact with one another, including between the EU and national levels?
- How should specific measures at the EU and national level best be defined to optimise cost-efficiency of meeting climate and energy objectives?
- How can fragmentation of the internal energy market best be avoided particularly in relation to the need to encourage and mobilise investment?
- Which measures could be envisaged to make further energy savings most cost-effectively?

4.4. Competitiveness and security of supply

- Which elements of the framework for climate and energy policies could be strengthened to better promote job creation, growth and competitiveness?
- What evidence is there for carbon leakage under the current framework and can this be quantified? How could this problem be addressed in the 2030 framework?
- What are the specific drivers in observed trends in energy costs and to what extent can the EU influence them?
- Should we take into account uncertainty about efforts that other developed countries and economically important developing nations will make in the on-going international negotiations? If so, how?
- How can we increase the regulatory certainty for business while building in flexibility to adapt to changing circumstances (e.g. progress in international climate negotiations and changes in energy markets)?
- How can we increase the innovation capacity of manufacturing industry? Is there a role for the revenues from the auctioning of allowances?
- How can the EU best exploit the development of indigenous conventional and unconventional energy sources within the EU?
- How can we best improve security of energy supply internally by ensuring the full and effective functioning of the internal energy market (e.g through the development of necessary interconnections), and externally by diversifying energy supply routes?

4.5. Capacity and distributional aspects

- How should the new framework ensure an equitable distribution of effort among Member States? What concrete steps can be taken to reflect their different abilities to implement climate and energy measures?
- What mechanisms can be envisaged to promote cooperation and a fair effort sharing between Member States whilst seeking the most cost-effective delivery of new climate and energy objectives?
- Are new financing instruments or arrangements required to support the new 2030 framework?

5. SUBMISSION OF RESPONSES TO THE CONSULTATION

The consultation will be open for 12 weeks until 19 June. Responses can be sent electronically and also in paper form to the following addresses:

ANNEX

Background information on energy and climate issues

1. LEGISLATIVE INSTRUMENTS IMPLEMENTING THE HEADLINE TARGETS OF THE CLIMATE AND ENERGY PACKAGE AND MAIN POLICIES SUPPORTING THEIR ACHIEVEMENT

(1) Directive 2009/28/EC on the promotion of the use of renewable energy and defining the 20% renewables target per Member State.

(2) Directive 2009/29/EC reviewing the EU emission trading scheme (ETS) by defining an emissions cap and harmonising allocation of allowances to companies.

(3) Decision No406/2009/EC (Effort Sharing Decision) defining the targets per Member State for GHG reductions in sectors not included in the ETS.

(4) Regulation (EC) No 443/2009 (CO2 & Cars) on CO2 standards for new passenger cars

(5) Regulation (EU) No 510/2011 setting emission performance standards for new light commercial vehicles as part of the Union's integrated approach to reduce CO2 emissions from light-duty vehicles

(6) Directive 2009/30/EC (Fuel Quality Directive) to reduce the life cycle carbon content of fuels.

(7) Directive 2009/31/EC creating an enabling framework for carbon capture and storage.

(8) Directive 2012/27/EU on energy efficiency defining required actions at Member State level

(9) Directive 2010/31/EU on the energy performance of buildings

(10) Directive 2009/125/EC on ecodesign requirements for energy-related products, incl. standards

(11) Regulation No. 2006/842/EC on F-gases and Directive 2006/40/EC on F-gases from mobile air conditioning

(12) Directive 99/31/EC gradually phasing out the use of landfills for waste disposal, reducing CH4 emissions

(13) Directive 1991/676/EEC on Nitrates, contributing to limit N2O emissions

(14) Directive 2009/33/EC on the promotion of clean and energy-efficient road transport vehicles

(15) Council Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity

(16) Regulation 1222/2009 on the labelling of tyres with respect to fuel efficiency and other essential parameters

(17) Regulation 228/2011 amending Regulation (EC) No 1222/2009 of the European Parliament and of the Council with regard to the wet grip testing method for C1 tyres

(18) Regulation 1235/2011 amending Regulation (EC) No 1222/2009 of the European Parliament and of the Council with regard to the wet grip grading of tyres, the measurement of rolling resistance and the verification procedure

(19) [To be completed]

2. KEY REFERENCE DOCUMENTS