

Response on Public Consultation – Green Paper “2030 Energy and Climate Change Framework”

The Swedish Association of Engineering Industries

Main messages

We believe that a binding CO₂ target by 2030 coupled with right instruments can help pushing Europe in the right direction, in terms of driving investments into innovative and competitive areas and of supporting the overall competitiveness of European industry, growth, jobs and citizens welfare in Europe.

Considering the international dimension of this debate, we encourage the EU to take any effort to obtain a global and legally binding climate agreement at the UN-FCCC in Paris in 2015. We particularly recognise that if other regions of the world would not agree with taking similar binding commitments that adjustments of any European targets and subsequent instruments may become necessary to help investment and planning security and to secure the global competitiveness of EU industries.

Furthermore, we stress the need for an integrated debate on the EU's 2030 energy and climate change framework: Considering the close relationship between energy/climate policy and business and growth, a forward looking energy and climate policy must be implemented in coherence with the EU's Industrial Policy Agenda for a competitive Europe. Industrial Policy aims at increasing production in Europe. We support this and in particular that the target of a 20% share of industry in EU GDP in 2020 should be the overall focal target for Europe.

Energy and climate change targets should therefore work towards implementing this Industrial Policy target and encourage Member States to use all means to implement low carbon products and services that are produced in Europe and that serve to meeting the goals of EU Directives and Regulations, such as WEEE, RoHS, REACH or Resource Efficiency. This would in our view strengthen greater overall coherence of EU policies.

We support an interrelation of the binding CO₂ target with flexible, indicative targets on energy from renewable sources (RES) and Energy Efficiency. It should be considered if the mix of these Energy Efficiency and RES targets should for best results be determined in each Member State, with the overall objective that these targets support the guiding, binding CO₂ target.

Regarding the energy efficiency target, we are critical to setting a target, binding or indicative, on the basis of today's definition (which is, reduction of primary energy consumption in comparison to the 1990-baseline). Instead, we suggest an energy efficiency target that is defined as energy intensity target in relation to economic output indicators, especially GDP, using where appropriate all products and services that meet EU Directives and objectives, notably environmental, to reach the target.

We urge to exploit the significant potentials of energy efficiency and energy savings measures for helping both gaining time for a global climate change

agreement and for boosting growth, as confirmed in the 2012 “World Energy Outlook” and the June 2013 Special Report “Redrawing the Energy Climate Map” of the International Energy Agency.

Energy efficiency measures play also an overriding role for helping security of energy supply in Europe, as they decrease Europe’s dependence on energy imports.

Regarding the Renewables target, we support the increased use of renewable energy sources as a key instrument to reduce carbon emissions in Europe. It will be important to take into account the implications of RES on energy networks. Therefore, we ask regulators for their support for immediate investments in smart grids and deployment of smart grids technologies. Actually, the more investment is driven into RES, the more investment will be needed for smart grids to guarantee the necessary grid stability for both, manufacturing operations in Europe and consumer needs.

Furthermore, overcompensation for renewable energies should be avoided, loop-currents be prevented, renewable energies need to become competitive and sustainable by themselves. Consumer flexibility should be encouraged, smart grids be promoted, bottlenecks in transmission be abolished and no CO2 taxes should apply for installations falling under the ETS.

It is important that the discussion should not only focus on targets, but also the instruments to achieve them, as the way to their realisation generally shows the greater impact on business and competitiveness than the targets themselves.

The European Emission Trading Scheme (ETS) is in theory a market based instrument that works, and which we feel should be retained as any alternative would take time to negotiate and put in place. Nevertheless, the current ETS requires significant revision to allow it to meet its objectives of reducing carbon emissions, providing incentives for industry and competitive energy prices.

Security of supply in our view is not only a question of deliveries from and dependence on third countries, but first and foremost a question of stability and robustness of the European energy system as a whole. Therefore, a truly European energy market is needed by 2014 and again, energy efficiency investments throughout all market segments need to be boosted.

To combat carbon leakage, we recommend using market based models to help energy intense industries. It is essential for Europe’s competitiveness and growth to keep value chains in Europe and to ensure competitive energy prices. We recommend the Commissions to carry out investigations of appropriate tools in that respect.

In such a way, we feel that climate and energy policies and possible new targets can effectively promote economic growth, employment and welfare in Europe.

We provide hereafter our detailed comments on the questions raised in the 2030 Green Paper.

Comments on questions in the Green Paper

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?

Lesson: The existing three targets (Greenhouse Gas (GHG) emissions, energy efficiency and renewable energy) at EU level are mutually reinforcing. A guiding CO2 target coupled with interrelated RES and Energy Efficiency targets helps ensuring long-term coherence, stability and predictability for Europe's industry. The 3 targets need to adequately reflect the 2050 perspective for this purpose.

Lesson: Awareness of the multiple benefits of energy efficiency is increasing, however, not sufficiently translating into energy efficiency measures and investments. Energy efficiency benefits need to be better explored. Market response and return on investments of our industry in the design development and production of low carbon and energy efficient technologies, also following the Ecodesign Directive, remain an issue (see 2012 CSES study findings).

Lesson: Increased component efficiency is not sufficient to fully exploit the energy savings potentials.

Efficiency increases on product level are often reaching their technical limits, but appropriate system engineering often result in much bigger efficiency gains. The challenge is to better exploit energy savings potentials at the system level.

Lesson: EU climate and energy policy objectives increasingly conflict with other EU policy objectives, especially waste and resource efficiency policy objectives. According to the Commission calculations, the Ecodesign and Energy labeling requirements will reduce 484 TWE electricity in 2020, which must be recognized as a success. If the same products should also deliver savings on other environmental aspects, care must be taken to avoid technology constraints or sub-optimisation of product performances. Tradeoffs between different environmental parameters may have to be accepted. Policy objectives need to be clear.

Industry needs long-term stable conditions and it is essential that requirements on products are based on a lifecycle perspective to identify what requirements on a specific product are justified. Requirements on energy efficiency may force companies to use certain (amounts of) materials or chemicals, which in turn are under scrutiny in the field resource efficiency. Or the other way round, the restriction of certain chemicals can affect energy efficiency in the production phase of the product or of the product itself.

The Ecodesign directive in its present form must be maintained as a tool covering all environmental aspects for energy related products. It must be maintained and used in a responsible manner, both, in regard to energy, but also chemical, or waste aspects as parts of the EU's resource efficiency policy. In the longer term, the parallel use of Reach and RoHS must be analysed, also from an energy efficiency angle.

Latest developments on Member States waste development plans also evidence that the potentials and benefits for industry stemming from the Ecodesign Directive are watered down, e.g.: through Member States' support measures for reuse and repair activities of products.

Lesson: To date there is no "EU energy system", but 27 different energy systems in the EU. The EU internal energy market is not completed and the 2014 deadline at stake. The liberalisation of the electricity market and of the gas market has also not in all cases had the expected benefits. Transmission and distribution systems are still insufficiently interconnected. Implementation of smart grids projects is turning in circles. Changes in the energy sector take very long time

and concrete measures more often than not address the energy use side rather than energy production, transmission and distribution.

2. Targets

2.1 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?

We support the setting of a binding CO₂ target at EU level in combination with indicative energy efficiency and renewable energy targets to ensure planning and investment certainty, coherence, stability and predictability for Europe's industry. The three interrelated targets should strive towards implementing the EU's industrial Policy target of 20% share of industry in GDP in 2020.

Should international discussions fail to reach a binding international agreement, adjustments of EU targets may become necessary to secure the EU's overall competitiveness of EU industry and its value chains.

2.4 How can targets reflect better the economic viability and the changing degree of maturity of technologies in the 2030 framework?

The guiding CO₂ target needs to be legally-binding and long-term in order to ensure coherence, stability and predictability. The market forces and the maturity of technologies, not the targets, will then decide on what is economically viable.

2.5 When setting the targets for Member States, cost-efficiency must be the priority. 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?

Assessing progress for other aspects of EU energy policy should include the general economic situation of EU industry and progress made towards the 20% industrial policy target for the share of industry in EU GDP in 2020. Such an assessment would also have to look at the impact of external developments (e.g.: US shale gas revolution) on European industry and manufacturing operations in Europe.

Internally, implementing energy efficiency throughout all market segments in the EU is in our view the best and most cost efficient option to support the EU's internal security of supply, as it reduces Europe's dependence on energy imports and strengthens the stability and robustness of the EU energy system as a whole. The upcoming 2014 and 2017 reviews of the Energy Efficiency Directive need to significantly lift up the Directive's ambition.

Relevant assessment factors should furthermore include the state of the opening the internal energy market by 2014 as announced by the Commission, which we consider equally important for strengthening the EU's internal security of supply. Furthermore, transboundary network connections should be developed according to the EU's priorities of projects of common interest (PCI's). Transmission system operators are in key position to make sure that bottlenecks are identified and abolished. Demand and supply give correct price signals in an opened electricity market to utilities for investments in new capacity.

3. Instruments

3.1 Are changes necessary to other policy instruments and how they interact with one another, including between the EU and national levels?

Overall, we believe that the objective should be that renewable energy technologies become competitive, economically and environmentally sustainable by themselves. European policy should give the right directions and framework to enable investment in sustainable, low carbon technologies.

EU and Member States waste and resource efficiency policy measures must tie in with the existing Ecodesign Directive, including its ongoing implementation, notably on energy efficiency. Policy makers need to take consistent decisions and accept that tradeoffs between different environmental parameters of a product will have to be made in certain cases.

Finally, the review of interactions should also include product directives and relevant smart metering and smart grid Commission activities.

3.3 How can fragmentation of the internal energy market best be avoided particularly in relation to the need to encourage and mobilise investment?

In order to mobilise investment the most important thing is a consistent, stable and predictable legislative framework. In this respect, it is important to open the internal electricity market by 2014 as planned. Electricity market price should be calculated by the same algorithm for all price areas in the EU. On a internal energy market, subsidy schemes should be based on common principles so that overcompensation can be avoided and market distortion be minimised. Also, the rules for all electricity producers should be the same, including producers of renewable electricity.

3.4 Which measures could be envisaged to make further energy savings most cost effectively?

Energy performance labels for consumer products, as applied today and often established together with Ecodesign requirements under the Ecodesign Directive, are supported as they deliver good results. However, labeling is not necessarily the appropriate instrument for all products. Capital goods are more complex and serve other purposes than consumer goods; their client-base is professional and aware of product characteristics.

When promoting the construction of smart grids, consumer flexibilities should be used to optimise the grid load and to give consumers the opportunity to offer their flexible loads to the market. Real time monitoring and flexibilities create new business opportunities for energy service companies in promoting energy efficiency.

The introduction of demand management measures would be most cost effective, especially demand response. Demand response should be defined as follows: "Changes in electric usage by demand-side resources from their normal consumption patterns in response to changes in the price of electricity over time, or to incentive payments designed to induce lower electricity use at times of high wholesale market prices or when system reliability is jeopardized (Source: Federal Energy Regulatory Commission, FERC)". It is a cost-efficient solution compared to the construction of a new power station. Demand response will enable consumers to become actors rather than just being spectators. It will also enable the full utilisation of intermittent renewables, which are today sometimes discarded due to a lack of storage infrastructure.

3.5 How can EU research and innovation policies best support the achievement of the 2030 framework?

EU research and innovation policies should not only support innovation. For example, demonstration projects of existing and available on the market technologies, such as building automation and controls, also need to be supported.

Concerning innovation, priority should be given to demand side management technologies, including electricity storage solutions.

The Strategic Energy Technology Plan (SET) can be used to support the achievements by promoting new technologies. Technologies that have considerable potential include smart grids and grid robustness (to meet increased proportion of intermittent renewables), energy efficiency, low carbon technologies, and in longer run carbon capture and storage. The EU should focus on the synergy potential between the different SET areas of research rather than treating them as separate issues.

In general, the EU Budget should be re-directed and focus on innovative areas.

4. Competitiveness and security of supply

4.1 Which elements of the framework for climate and energy policies could be strengthened to better promote job creation, growth and competitiveness?

Investment in energy efficiency improvements throughout all market segments will boost growth and jobs. The energy efficiency target will have a positive impact on the two other targets, opening new opportunities for the EU manufacturing sector offering the technology solutions, ensuring job creation, growth and competitiveness in the EU.

The significant potential of energy efficiency and energy savings measures help for both, gaining time for a global climate change agreement and for boosting growth, as has been confirmed in the 2012 World Energy Outlook¹ and recent Special Report on "Redrawing the Energy Climate Map"² of the International Energy Agency. The EU Energy Roadmap confirms that a high energy efficiency scenario leads to lowest electricity prices. We therefore believe that investment in energy efficiency should be an absolute priority.

In parallel, we believe that it is important to make sure that a global and binding climate agreement is achieved in 2015. The EU internal energy market needs to be fully open for competition. A stable and predictable framework for investments and manufacturing industries in Europe should be created. Overcompensation in state-aid schemes should be prevented as well as overlapping burdens, such as CO2 taxes inside the ETS.

4.3 What are the specific drivers in observed trends in energy costs and to what extent can the EU influence them?

In global markets, energy prices are determined by demand and supply. The oil price has persistently been at a high level in spite of the economic recession. Demand in China and conflicts in the Middle East have kept the price high. In the US, energy prices have collapsed due to the abundant production of shale gas. Such changes in the global energy market can be hardly influenced by the EU.

¹ Please see <http://www.worldenergyoutlook.org/publications/weo-2012/>

² Please See <http://www.iea.org/publications/freepublications/publication/name.38764.en.html>

There are, however, possibilities to stabilise price trends by appropriate policy measures. Import independence and diversification of Europe's energy supply should receive more attention. It is important that there are several competing energy commodities available from different sources. In this respect, investments in transmission grids, gas pipelines and LNG terminals are important. Furthermore, investments in domestic sources, such as shale gas, and above all, investments in energy efficiency throughout all market segments, reduce the EU's vulnerability caused by import dependence.

4.4 How should uncertainty about efforts and the level of commitments that other developed countries and economically important developing nations will make in the on-going international negotiations be taken into account?

Climate change policy is necessary and boosts technology development, which will reduce energy costs and raise energy independency of Europe. Reducing legislative risks is of significant value for industry. We therefore urge the EU to take any effort to achieving an international agreement. Should it nevertheless fail, adjustments of EU targets may become necessary. However, we are generally convinced that an ambitious climate change policy can be combined with reinforcing the EU's competitiveness and industrial investments. The European Emission Trading Scheme (ETS) is in theory a market based instrument that works, and which should be retained as any alternative would take time to negotiate and put in place. Nevertheless, the current ETS requires significant revision to allow it to meet its objectives of reducing carbon emissions, providing incentives for industry and competitive energy prices.

4.5 How to increase 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)?

The most important thing is a consistent, stable and predictable overall legal framework that takes into account the competitiveness of European industries. Now is the time to set the EU framework for climate and energy policies for 2030. Before the UN-FCCC in 2015, this framework should be conditional and regarded as an offer made by the EU to speed up the negotiations. Internally, the EU should without delay implement its "no regret" options. We recall the findings of the International Energy Agency that the significant potential of energy efficiency help for both gaining time for a global climate change agreement and for boosting growth.

4.6 How can the EU increase the innovation capacity of manufacturing industry? Is there a role for the revenues from the auctioning of allowances?

It is important to enhance European cooperation between manufacturing industry, universities and research institutes in order to create innovations and new high value products and services and the continuous improvement of existing technologies. Horizon 2020 has a crucial role to play, and in energy sector, the Strategic Energy Technology Plan is important. We support the use of revenues from the auctioning allowances for R&D of low carbon and energy efficiency technologies. NER 300 funds should be used efficiently in renewables development and demonstration projects, such as CCS.

4.7 How can the EU best exploit the development of indigenous conventional and unconventional energy sources within the EU to contribute to reduced energy prices and import dependency?

Reducing administrative burden on new investment can facilitate exploiting indigenous energy sources. Environmental procedures should be streamlined for wind power, shale gas, peat and network construction projects. Adequate environmental impact assessments should ensure the sustainability of the projects, give relevant data for licensing procedures so as to make them easier, quicker and accepted by the public.

4.8 How can the EU 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?

When opening the internal energy market, bottlenecks in energy transmission become more transparent. It is then important to define projects of common interest (PCIs) according to the observations in the market functioning and to grant these projects priority over those projects that have only commercial interest for some few players. New gas pipelines also from other sources than Russia should be promoted. LNG infrastructures should be developed and all Member States should be connected to EU energy infrastructures. Available domestic energy sources should be used in a responsible manner as broadly as possible.

However, as mentioned before, we believe in energy efficiency investments as the first tool to improve the EU's internal energy supply. It reduces import dependence and strengthens the stability and robustness of the EU energy system as a whole. In addition, its positive impact on gaining time for an international agreement and on the creation of jobs and growth are confirmed by the International Energy Agency.

5. Capacity and distributional aspects

5.2 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?

We see the following mechanisms:

- Increased informal cooperation between Member States
- Information exchange, best practices exchange and know-how exchange through the creation of a Concerted Actions (CA) like initiatives for the three targets
- Demonstration projects of existing and available on the market technologies, such as building automation and controls

It is important that energy infrastructures and new technologies are developed in cooperation with all Member States using the opportunities of public private partnerships. This is how investments in the most cost efficient technologies and smart grids and smart cities can be promoted simultaneously all over Europe. Bottlenecks in energy transmission networks should be abolished. Subsidy-schemes should not allow overcompensation and renewables should not be developed at the expense of grid stability in neighbouring countries.