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European Commission

Consultation on the EC greenpaper on a framework for climate and energy policy 2030

Swedenergy – Swedenergy AB – is the united voice of Swedish power industry. Swedenergy is representing companies involved in the production, distribution and trading of electricity in Sweden – with a total of 171 member groups.

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Swedenergy welcomes the opportunity to share our thoughts on the energy and climate policy beyond 2020. Enclosed you will find our proposal for a new energy and climate framework 2030.

Swedenergy strongly endorses the Commission's recommendation that the EU needs to reach an early agreement on this Framework, taking into account long investment cycles and preparations for the 2015 international climate negotiations.

Swedenergy believes that a 2030 framework should be characterised by;

- Long-term visibility
- Cost-efficiency
- Market-based policy instruments
- A well functioning internal energy market
- EU-harmonised policy



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The energy- and climate policy post 2020 should more specifically focus on:

- An ambitious, long-term climate change policy including targets for 2030, 2040 and 2050 and an EU-ETS in line with this policy
- Promotion of a well functioning internal market on energy including development of infrastructure, all market participants meeting true price signals and development of demand flexibility.

Questions

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

Cost-efficiency is important

The most obvious lesson is that we cannot predict the future. The economic crisis was not in the projections which underpinned the 20-20-20 targets and the energy and climate package following up these targets. The economic crisis has led us into an oversupply of EUA:s in the EU ETS which has started the debate on back loading etc. Today competitiveness and growth is much more in focus. This highlights the importance of cost-efficiency in the energy and climate change policy.

Cost-efficiency is lost

Another lesson is that it is important that policy instruments are coordinated. The 20-20-20-targets are not in balance. The EU Commission's own scenarios in its "low carbon road map" clearly show that. The consequences of this are that the carbon price in the EU ETS suffers from a downward pressure due to the instruments and measures taken to increase the share of renewable energy and energy efficiency and the effectiveness of the emissions trading is thus undermined. Climate and energy policy must be coordinated in order for policy post 2020 not to impact the functioning of the EU ETS in a negative way, as this makes climate policy more expensive. The number of targets should be reduced to one – climate change.

National RES-policies undermine the internal market

A third lesson is that the integration of the internal market for energy has not been as fast and smooth as necessary. The fast expansion of renewable electricity due to generous subsidies has been faster than grid expansion. And the fact that subsidies to electricity from renewable exist, that consumer prices are still regulated in some countries, that renewable energy does not pay for balancing costs in all countries and that demand flexibility is not developed as much as needed, makes integration of weather dependent renewable energy into the electricity market problematic. Several countries are introducing capacity mechanisms. Swedenergy believes that the problems the capacity mechanisms are set to solve primarily should be resolved by all power types paying their balancing costs, by abandoning regulated prices, by expanding transmission capacity within and between countries and by phasing out energy subsidies to.

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?

A long-term and stable policy framework is essential for business and particularly for capital-intensive industries such as the electricity industry where investments have a very long lifetime. The road to the climate-neutral economy in 2050, including climate targets for 2030 and 2040, must be clarified now to give stakeholders a clear signal about the policy direction. The price on carbon dioxide should be the main driver for reducing emissions of carbon dioxide. This would stimulate both the increased use of renewable energy and energy efficiency. Fossil fuels will become more expensive, which increase diversity of energy supply and thereby to some extent security of supply. Only in this way can a cost-effective and technology-neutral policy in 2050 be achieved, with minimum negative impact on the electricity market.

Swedenergy believes that renewable energy and energy efficiency targets for post 2020 are not necessary. Desirable effects achieved by renewable energy policy and energy efficiency policy can be achieved with a price on carbon.

Have there been inconsistencies in the current 2020 targets and if so how can the coherence of potential 2030 targets be better ensured?

Climate change is one of the greatest challenges facing humanity. Swedenergy believes that the climate target must be seen as the overarching objective in relation to the energy policy objectives of increased share of renewable energy and increased energy efficiency. The 20-20-20-targets are not in balance. The EU Commission's own scenarios in its "low carbon road map" clearly shows that. The consequences of this are that the carbon price in the EU ETS suffers from a downward pressure due to the instruments and measures taken to increase the share of renewable energy and energy efficiency and the effectiveness of the emissions trading undermined. By using the EU ETS as the main tool to reduce emissions and also to increase security of supply policy overlap is avoided.

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 CO₂ reductions for passenger cars and light commercial vehicles?

Swedenergy believes that all sectors should in the long-run face the same price on carbon dioxide in order for measures to be taken where most cost-effective. The EU ETS should be expanded to other sectors.

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

If the framework for 2030 is based on a general target like the climate target, which doesn't say anything about which technologies to be used as long as they are "climate-friendly" policymakers don't have to worry too much about changing degree of maturity of technologies. In order for climate policy not to become very costly, the EU and its member states must at the same time support research, development, demonstration, innovation, etc. for immature technology, for example wave power. The costs of the climate change policy may be lowered if economic and market based instruments are combined with support for R & D.

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?

Swedenergy believes that the definition of security of supply has to be clearer. The security of supply could be interpreted as a reduced share of imported fuels in the EU energy mix, or it could be increased diversity of fuels/energy sources in the EU energy mix or it could be a reduced number of black outs in the power system, or it could be improved capacity for transmission of electricity, gas etc between countries. The EU has to clarify what it means.

4.3 Instruments

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

Swedenergy believes that the EU ETS should be the main instrument that drives reduction of greenhouse gas emissions in the trading sector and that it should be designed so that it is in line with the EU's long-term climate change target. Swedenergy believes that this will ensure that emissions are reduced in the most cost-effective way.

For the EU ETS to become the main driver for reducing emissions first and foremost a target for climate policy beyond 2020 is needed. Once the targets for 2030, 2040 and 2050 for the trading sector are set, the annual reduction factor should be adjusted from 2020 and onwards so that this factor is in line with these goals. Further, a shift from production support for renewable energy towards a CO2 price-driven development is needed, i.e. phasing out energy subsidies. Any subsidy that remains after 2020 must be designed so that market actors are exposed to market prices, including balancing costs, as well as market risk. Awareness of how energy efficiency measures and renewable energy support influences the EU ETS and the electricity market is necessary when post-2020 policies are formulated. Increased consistency among member states in RES-support is needed. The EU Environmental and Energy state aid guideline revision is a welcome step in this direction. Focus should be put on a cost-efficient climate change policy and improving the internal energy market.

To increase the effectiveness of EU climate policy, it is desirable that the uptake of carbon in forests and land is included in the EU's target after 2020.

Inclusion of LULUCF in the EU ETS needs thorough analysis. Further, the Commission has to consider how deforestation in developing countries could be handled. In other words, there is a need for policy instruments for both emissions and uptake of carbon.

How should specific measures at the EU and national level best be defined to optimise cost-efficiency of meeting climate and energy objectives?

Swedenergy believes in cost efficient and market based solutions. An important basis for an efficient policy is well functioning markets, including the internal energy market.

Market based instruments should be broad and technology neutral and preferably harmonised at EU level.

Support schemes for renewable energy or other energy sources available today and any support that remains after 2020 must be designed so that market actors are exposed to market prices, including balancing costs, as well as market risk.

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

The internal market needs to be strengthened further. Swedenergy believes that there are three main measures in order to improve the functioning of the market; expose all market actors to market prices in the energy markets and balancing markets, improve demand flexibility and strengthen the European transmission grid. Important elements are also functioning cross-border markets in all time horizons, "day-ahead", "intraday" and cross-border balancing markets.

The renewable power types taking responsibility for balancing costs just like other types of power in the market is an important factor for the market to work in a satisfactory way. This is not the case in all Member States today, but needs to be addressed in all countries.

The expansion of electricity transmission capacity between the different EU markets and within each country is essential as the physical conditions for investments in renewable power generation varies. This work must be accelerated. Permitting procedures need to be shortened. Planning and implementation of grid expansion should be done from a regional / European perspective and not national. Absence of grid expansion prevents market integration and the growth of renewable electricity in a cost effective manner. In this context it is also important to point out the importance of distinguishing between physical and financial trading of electricity.

Demand for flexible power generation increases. Hydropower is the type of power that best can cope with sudden fluctuations in supply / demand of electricity. Hydropower should for this reason be safeguarded. Fossil-fired power plants which are regulated up and down have a lower efficiency than if

they run as base load, meaning higher emissions. Lack of incentives for flexible and back-up capacity in the electricity market has been highlighted as a problem as more intermittent generation flows into the system. Swedenergy believes that only if measures to improve the existing energy market proves to fail, capacity mechanisms should be considered. Swedenergy believes that the problems the capacity mechanisms are set to solve primarily should be resolved by all power types paying their balancing costs, by abandoning regulated prices, by expanding transmission capacity within and between countries and by phasing out subsidies to power production.

Further, the demand side of the electricity market needs to be developed to better integrate intermittent power generation in the market. The possibility of inviting demand reductions in both spot and regulation/balancing markets needs to be further developed. Promotion demand flexibility is desirable, as it can facilitate the integration of renewable electricity. Both market and technical conditions need to be improved. New forms of contracts need to be developed in the electricity market. Smart grids can be a contributing technological solution. Incentives for grid operators may need to be developed.

Measures to improve the internal market need to be taken in a harmonized way. Legislation not in line with the Internal energy market should be phased out and replaced by a European solution.

Which measures could be envisaged to make further energy savings most costeffectively?

EU should focus on energy efficiency and not energy savings. However, Swedenergy believes that a binding target for energy efficiency is not necessary to set up after 2020. As energy supply becomes more carbon neutral, efficiency policies will become less important for combating climate change. Climate change policy will be more expensive with the presence of targets for energy efficiency, and also targets for renewable energy.

Swedenergy believes that the market price on electricity/energy adjusted for negative external effects through emissions trading or carbon taxes, gives a clear signal of which rate of energy efficiency is motivated from an economic point of view. However, knowledge and information-based instruments will still be needed after 2020 to make it easier for stakeholders to increase the efficiency of their energy use.

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

Swedenergy believes that support for renewable electricity should be phased out beyond 2020. It is important that renewable electricity is exposed to market price signals so that the power system does not get stuck in an expensive and inefficient scheme where all types of power, renewable or not, is dependent on support. Support schemes available today and any support that remains after 2020 must be designed so that market actors are exposed to market prices, including balancing costs, as well as market risk.

Beyond 2020, there will be a continued need for support for research, development, demonstration, innovation, etc. for immature technology, for example wave power. Research and innovation policies should play a bigger role in the 2030 framework than today. The costs of the climate change policy may be lowered if economic and market based instruments are combined with support for R&D.

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?

Specific target and measures to increase the share of renewable energy is sometimes motivated by responsible politicians as it is considered to help increase security of supply, competitiveness (green growth / green jobs) and is sustainable, i.e. it addresses all the overall energy policy goals.

Analyses done by the World Bank, UNEP etc. show that investments in green jobs are not expected to create new jobs in the long term. In a well-functioning labour market, the green jobs replace jobs in other sectors and the net employment effect is absent. It is only when inefficiencies in the labour market, such as matching problems, is solved a net employment effect occurs.

It is of outermost importance that the integration of European energy markets continues and the third energy market package is implemented. It is an important prerequisite for policy to be efficient and for minimising costs to consumers and society at large. A well functioning market is also a basis for further growth in the EU.

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?

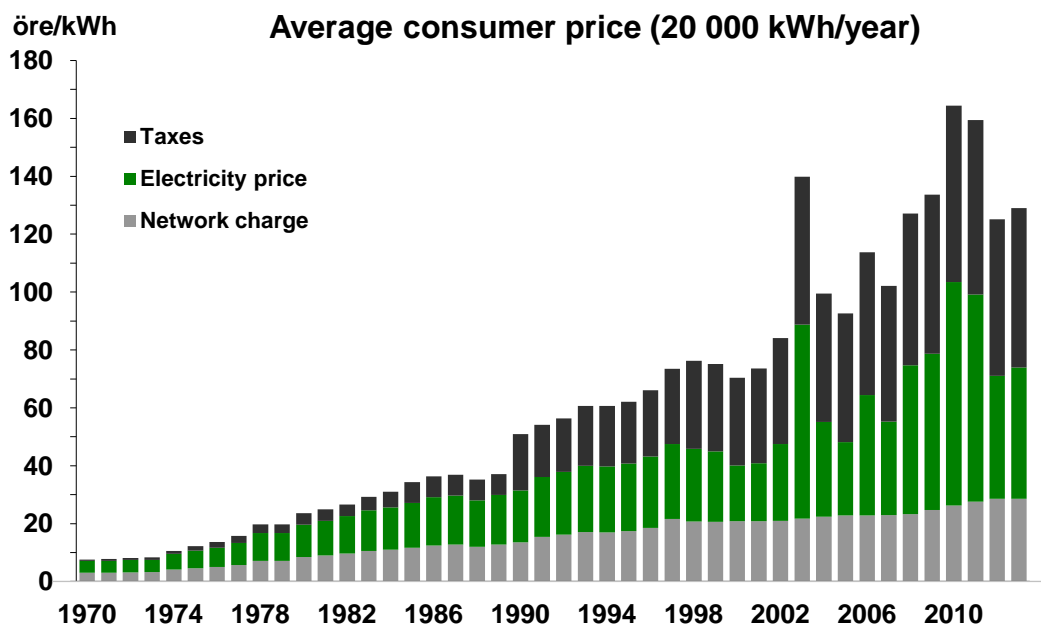
The energy intensive industries may need continued compensation, in the absence of a global agreement on climate change. Compensation for indirect costs should be harmonized at EU-level and not as today being a member state decision. Auction revenues from the ETS can be used to minimize carbon leakage.

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

It is important to differentiate between energy costs and energy prices. Energy prices are of course a result of demand and supply in the market. Generation costs are driven by fuel costs, where the "shalegas-revolution" will have an impact in the future, the price on EUA:s, weather conditions, increased balancing costs in the power systems due to introduction of weather dependent electricity generation etc. The overall supply is affected by

subsidies to renewable power (increasing supply), permitting procedures/environmental legislation (on supply) etc. And the demand profile may be affected by increased demand flexibility measures.

When it comes to energy costs the energy price is only one parameter. For households, network charges and taxes are of equal importance as the energy price. Regulated end-use prices of course have large impact on the energy bill. The graph below shows the development during several years of the electricity costs for households with a variable price contract in Sweden. Taxes have the same share as the energy price of the total energy cost, except from single years where weather conditions had a great impact on the energy price.



The conclusion from this is that policy instruments do have a great impact on total energy costs.

It is of outermost importance that the integration of European energy markets continues and the third energy market package is implemented. It is an important prerequisite for policy to be efficient and for minimising costs to consumers and society at large. Regulation which hinders efficient markets must be phased out, e.g. price regulation and different kinds of subsidies. In order to reach desirable goals general economic and technology neutral instruments should be used, which result in emission reductions at lowest cost and renewable energy is built at lowest cost and that energy efficiency is taking place at a rate which is economic plausible.

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?

See below

The EU should improve the efficiency of its energy and climate policies regardless of what other countries do.

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)?

Swedenergy fully supports the development of a global agreement on reducing greenhouse gases. Global action is a prerequisite for reduced impact of climate change on our planet. EU emissions represent a very small proportion of global emissions and hence the possibility of limiting climate change on its own is non-existent. Furthermore, it is desirable from an efficiency point of view to converge towards a global price on carbon and necessary that companies in different countries face similar requirements in order to safeguard the competitiveness of European industry. The EU should work towards the development of a global climate agreement.

A long-term and stable policy framework is essential for business and particularly for capital-intensive industries such as the electricity industry where investments have a very long lifetime. The road to the climate-neutral economy in 2050, including climate targets for 2030 and 2040, must be clarified now to give stakeholders a clear signal about the policy direction.

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In the absence of global action industry should be compensated. The framework for such compensation should be clear already now. Such compensation should preferably take place at EU-level, guaranteeing the same treatment in all member states.

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?

Security of supply should be promoted through market integration of e.g. renewable energy and establishing a well functioning energy market, a price on carbon dioxide which discourages the use of fossil fuels and promotes low carbon technologies and support for R & D in e.g. renewables in order to make new technologies commercially viable.

The European and the Nordic/Swedish power systems are confronted with some challenges:

- Reduction of greenhouse gases. Our estimate is that the Nordic electricity production could be carbon neutral by 2030. Swedish electricity production is today carbon neutral to 97 percent.
- Increased share of weather dependent power which calls for more flexible back-up generation.
- Hydro power production in Sweden can be reduced due to the EU Water Framework Directive and national legislation.
- Expansion of transmission capacity. The expansion of renewable electricity production is increasing dramatically. There is a risk that the expansion of the grid does not evolve at the same pace. This will mean that potential economic and environmental benefits cannot be realized. Swedenergy believes there is a great economic potential to export electricity from the Nordic countries, up to 50 TWh per year around 2040-2050.
- Provide for base load capacity. The need for this is accentuated by increased share of renewable electricity and that the lifetime of Swedish nuclear plants are going towards their end.

The challenges above may have an impact on the security of supply of the power systems and therefore the integration and improvement of the internal energy market is crucial to make the system more robust.

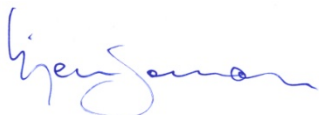
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Renewable energy is seen as an opportunity to break the EU's dependency on fossil fuels and thus imports from third countries. A policy to encourage the use of renewable energy for security of supply reasons is preferably based on the increased cost of using fossil energy through emissions trading and carbon taxes instead of subsidies for renewable energy, Swedenergy believes. This also prevents the risk of various instruments to overlap.

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