

**European Commission's Green Paper
"A 2030 framework for climate and energy policies"
Statoil's response to the questionnaire**

LESSONS FROM THE EU 2020 FRAMEWORK

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?

The EU 2020 framework has laid down the foundations for several positive features in the EU energy and climate policies. Statoil welcomes the principle of carbon trading set out by the EU Emissions Trading Scheme (EU ETS), the continued pursuit of an integrated and competitive internal energy market (IEM) and the objective of creating a truly European approach to energy and climate policies. On the other hand, the EU 2020 framework has proven complex and lacking in coordination, leading to weak signals for investors in the energy sector and putting Europe on track to build a very costly energy system at the expense of the competitiveness of European industry. We believe that the 2030 framework can build on the positive features, while reflecting on the main lessons learned from the 2020 framework:

1. EU energy and climate policies should be consistent and simplified

The current system based on multiple targets and overlapping policy measures has proven costly and complex. While full harmonisation may be neither politically feasible nor desirable due to local specificities, a drive to simplification and a consistent approach to energy policy should be strengthened.

2. The EU ETS should be the central tool of EU climate policy and be improved

The creation of a first-of-a-kind cap-and-trade system in the EU is a fundamental milestone on which Europe should further build.

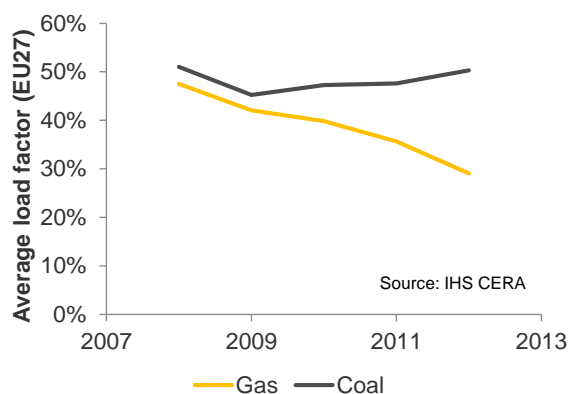
In Statoil's view, market-based mechanisms are the preferable climate policy instruments to promote a technology-neutral and cost-effective reduction of greenhouse gas (GHG) emissions. We support the EU Emissions Trading System (ETS) working in tandem with the IEM to provide a basis for a global carbon market through the linking with other cap-and-trade systems.

The design of the EU ETS has, however, suffered from deficiencies:

- **The role of the EU ETS was undermined by lack of coordination with other policies, both at the EU and national level.** Renewables (RES) targets and energy efficiency policies are driving emission reduction outside of a market-based framework (see our answer to question 4.2.2 for a more detailed explanation).
- **The EU ETS has been vulnerable to exogenous shocks in demand for emission allowances (EUAs),** such as the current economic recession.

The combined effect of overlapping policies and the economic recession has dampened the demand for EUAs, driving the carbon price to levels that make it irrelevant to promote low-carbon investments. The low carbon price has allowed the surge of coal-burn in the European

Figure 1: Average load factor of EU-27 coal- and gas-fired power plants (2008-2012)



power segment at the expense of much lower emitting gas-fired power plants (see figure 1), contributing in offsetting the emission reductions achieved at high cost by the growth of RES. Gas consumption in the power sector in the EU has decreased from 761 TWh in 2010 to 567 TWh in 2012 (-26%) by with particularly strong losses in the UK (-46%) and Germany (-18%). Over the same period, coal consumption has surged by 8%, registering its most significant increase since the 1980s.¹

To address this problem, Statoil believes the EU ETS should act as the central climate instrument with a clear cap to 2030 and beyond, and be complemented by a supply-side flexibility mechanism (see our response to question 4.3.1).

3. Europe should avoid picking winners and setting targets for specific energy sources

Market-based mechanisms can adapt to technological breakthroughs and other unforeseen changes better than regulations and setting targets. While the 2020 RES targets have been successful in stimulating the growth of these sources, their implementation have proven to be rigid and presented a number of shortcomings.

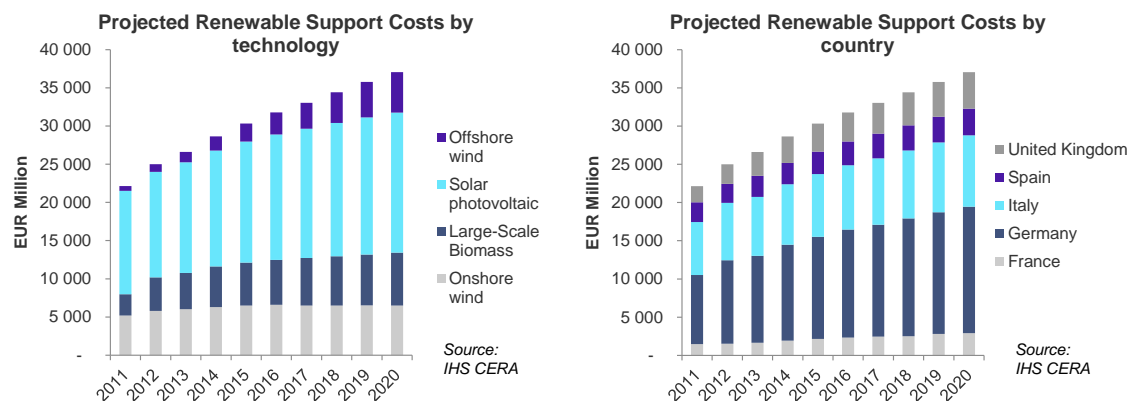
- **RES targets should not be continued beyond 2020 as we believe setting such targets are not the best tool to promote innovation and stimulate new low-carbon solutions.** Current RES targets are focused on the deployment of renewable energy technologies as listed in Art. 2a of the Renewable Energy Directive.² Their development is then described in National Renewables Action Plans that set indicative goals and timelines for the development of each of these technologies. Such a prescriptive approach does not encourage technological breakthroughs nor does it promote innovative solutions to reduce emissions.
- **RES targets are putting Europe on track to build a very costly energy system.** The build-up of RES has come with a high price tag. A report by IHS CERA estimated the cost of RES support amounted to €30 billion in 2012, of which €25 billion in the five largest European power markets (see figure 2). These costs are likely to rise to €49 billion in 2020 if the current approach to RES support is maintained.³ These figures are likely to be conservative as they assume that future support levels will be placed at the level of generation cost, which is typically lower than the actual subsidies as it does not take into account indirect compensation.

¹ IHS CERA European Power Balances.

² Directive 2009/28/EC on the promotion of the use of energy from renewable sources.

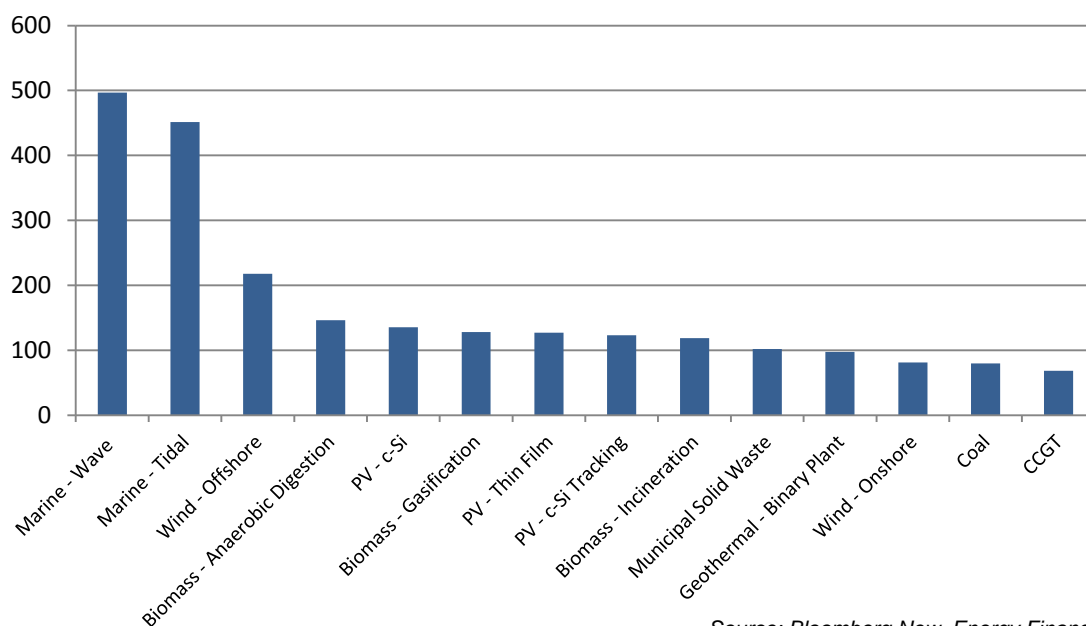
³ IHS CERA. 2013. The Energy Investment Imperative – Towards a competitive and consistent policy framework. Special Report. Available at: <http://www.ihs.com/products/cera/energy-report.aspx?id=1065976912>.

Figure 2: Projected RES support costs by technology and country for the five largest European power markets (2011-2020)



The levelised cost of energy produced by renewables is generally above conventional technologies (see figure 3). The fact that the generation cost of the single kilowatt-hour produced by some RES technologies, such as solar PV and onshore wind, is approaching grid parity does not mean that they have the same cost as other energy sources. Generation costs do not include system costs such as grid charges, remuneration of back-up/storage capacity, cost of support schemes and taxes, which are all eventually paid by other grid users and final consumers. Such system costs are expected to rise as RES share increases in the energy mix.

Figure 3: Full life cycle cost of fuels in power generation (€/KWh)



Source: Bloomberg New Energy Finance, Q1 2013

- **RES targets have distorted investment decisions and market functioning.** In countries facing a decline in energy demand, RES targets have contributed to overcapacity and falling returns for conventional power generation assets. This has aggravated the difficulties of the European energy sector and undermined the business case to make investments in the European energy system.

Furthermore, the implementation of RES targets without any coordination with the GHG reduction target under the EU ETS has undermined the ability of the EU ETS to drive cost-effective emission reduction (see our answer to question 4.2.2 for a more detailed discussion of this aspect).

Instead of mandating a RES share in the energy mix, cost-effective RES should be supported by the pricing signal provided by a robust EU ETS. The EU ETS should be accompanied by additional targeted funding to support R&D and market scaling of immature low carbon technologies. Funding provided must be adequate but limited in time and should be structured in a way that does not undermine the carbon price under the EU ETS (see our answer to questions 4.3.1 and 4.3.2).

4. Putting the challenges in a global context

Statoil considers climate change as one of the most critical global challenges industry and society are faced with and supports continued political action to tackle this issue. However, more focus should be given to assessing the implications of climate policies on competitiveness and the level playing field for industries and energy sources.

It is essential that the EU's efforts to reduce emissions take into account the outcome of international climate negotiations and actions taken by its major trading partners.

- **The EU represents today around 10% of global emissions and will achieve little if it acts alone.**
- **Unilateral climate action imposes additional costs on EU industries compared to their international competitors,** undermining Europe's competitiveness and contributing to the problem of "carbon leakage."

The EU should therefore continue its effort to build a legally binding international agreement on climate change mitigation and link the EU ETS with emerging carbon markets as this would help reduce the cost of global emissions reduction and secure a level playing field for industry.

If this does not materialise, mechanisms such as free allocation of allowances and competitiveness aid should be considered to preserve the competitiveness of the EU's industry.

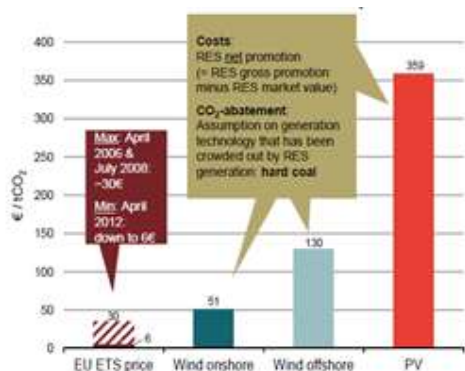
5. Europe should take full advantage of natural gas

Natural gas has long been the major contributor in reducing GHG emissions. In 2011, Europe's total CO₂ emissions had fallen 15% down from their peak in 1979,⁴ primarily due to coal-to-gas switching. This switch has proved to be the most rapid and effective method to cut emissions in a time of economic expansion.

⁴ BP Statistical Review.

In our view natural gas has a large role to play in Europe's future energy mix. The use of natural gas in power generation, heating, industrial applications and transport will supply Europe with a cost-competitive energy source that contributes to energy security, reducing emissions while safeguarding economic growth and employment.

Figure 4: RES support costs in Germany compared to historic EU ETS prices for carbon



Source: Frontier Economics based on 2012 EEG feed-in tariffs and EEX price data for Germany

coal and gas power generators and the *shadow carbon price* guaranteed to RES by support schemes in Germany.

As a consequence, the load factors for gas-fired power plants have generally declined across Europe (see figure 1). IHS-CERA estimates that 110 GW out of 125 GW gas power-plant capacity in Europe may be decommissioned due to low or negative profitability.⁵

⁵ IHS CERA: The Energy Investment Imperative: Toward a competitive and consistent policy framework (2013), p.16.

TARGETS

4.2.1. 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?

Statoil believes that cost-effective emissions reduction and a balance between competitiveness and sustainability are best served by one single GHG emissions reduction target. Statoil is in favour of expanding the EU ETS to all sectors where its application would not be particularly complex or impractical. Extending the EU ETS to new sectors should be accompanied by a review of existing instruments so as to avoid regulatory overlap. Where the EU ETS could not apply to a certain sector, other sector-specific instruments should be set up to work in conjunction with the EU ETS.

Statoil does not support an EU-wide RES target for 2030. While we maintain that the growth of these energy sources should be promoted, we believe targets are too inflexible and do not promote the most cost-effective and innovative solutions to reduce GHG emissions.

Statoil is not in favour of sectoral targets as we believe all sectors should contribute to emission reduction. The use of instruments based on market mechanisms and tradable schemes would allow for emission reductions to be realised where most cost-effective.

- The burden on sectors that may find it particularly complex or costly to reduce emissions should be addressed through mechanisms such as free allocation and competitiveness aid, not by setting differentiated targets.
- The adoption of sectoral targets would mirror the approach taken with the 2020 RES target consisting in mandating which actors should undertake emission reductions and by what means. As showed in our answer to question 4.1, such an approach has revealed several shortcomings in the EU 2020 framework and should be avoided.

With regards to differentiated national targets, Statoil recognises that the different capabilities of member states call for an approach that takes different conditions and the solidarity principle into account. However, it is important that once targets are set, the instruments designed to reach these targets are based on market mechanisms and tradable schemes to allow for emissions reduction to be realised where most cost-effective.

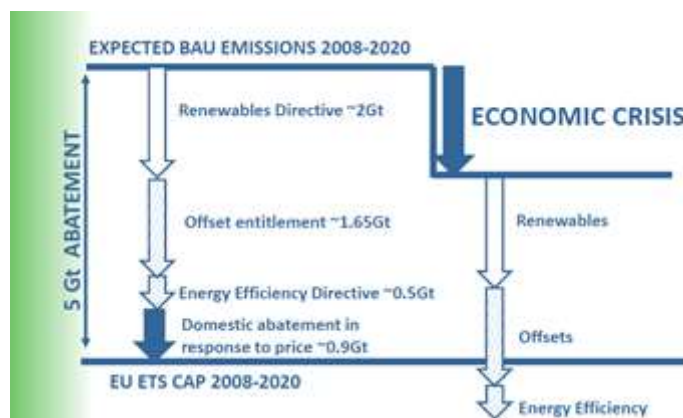
4.2.2. Have there been inconsistencies in the current 2020 targets and if so how can the coherence of potential 2030 targets be better ensured?

In Statoil's view, the main inconsistency is related to the fact that the EU 2020 framework failed to take into account that all three targets, directly or indirectly, reduce emissions.

A report by Deutsche Bank estimated that if both the renewables and energy efficiency targets were fully achieved, 2Gt of emissions would be abated and the 2020 GHG reduction target would be achieved with no further reduction required through the EU ETS.⁶ Such an effect was magnified by the impact of the economic recession, as shown by figure 5.

⁶ Deutsche Bank (2010) "Hard to Credit: ETS Offset Use Again in the Spotlight", Deutsche Bank Global Markets Research Update 22 June 2010, Deutsche Bank AG, London.

Figure 5: Cumulative impact of the EU 2020 framework and economic crisis on emissions reduction.



Source: IEA, presentation from Christina Hood. Brussels, 07.11.2012

Hence, the existence of RES targets and energy efficiency policies has impeded the effectiveness of the EU ETS, which was the instrument chosen as the central tool of EU climate policy. This meant that the EU 2020 framework:

- gave priority to higher cost emissions reduction solutions. RES targets and energy efficiency policies do not reduce emissions beyond what is required by the cap. Instead, they simply prescribe how such a reduction will be achieved and shift the abatement to more expensive technologies.
- led to an increase in coal burn. When combined with the rigid cap and economic crisis, the RES targets and energy efficiency policies reduced emissions faster than expected. This led to the dramatic fall in the carbon price under the EU ETS, turning high-emitting coal into a cheap and attractive option. The influx of coal has muted the emissions reduction achieved by RES, as shown in our answer to question 4.1.
- increased regulatory complexity and investor uncertainty. The cumulative impact of these targets and policies increased complexity and their effects were difficult to predict, contributing to the difficulties the European energy sector is facing in making investment.

4.2.3. 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?

Statoil is not in favour of sectoral targets or targets for specific energy sources (see our answers to questions 4.1 and 4.2.1).

We prefer a system with tradable emission quotas. The extension of EU ETS to transport should be looked at as one possible option for a structural reform of the EU ETS. If this takes place, existing policy measures covering emissions in this sector would need careful review and amendment to avoid double regulation or additional costs, which could damage the economy.

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

Statoil does not support technology-specific targets beyond 2020. We believe the lack of flexibility and an inability to reflect the changing economic conditions and the varying degrees of maturity of technologies are among the major shortcomings of such a target-based approach.

Thus, developing low-carbon energy technologies should be based on a robust ETS price signal and additional targeted and time-limited support for immature technologies.

The varying economic circumstances and degrees of maturity of technologies should be reflected in national support schemes. To this end, we support the ongoing review of support schemes by the European Commission and look forward to the publication of guidelines on the subject.

4.2.5. 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?

Statoil sees the merits of developing metrics for competitiveness and security of supply. However, synthetic indicators, such as a target on manufacturing as a percentage of GDP, may be overly rigid and narrow in their definition of competitiveness or security of supply.

Statoil believes current tools to assess and deliver security of supply in the European gas and power markets are adequate and welcome the continued drive to assess system adequacy with a European focus.

Security of gas supplies has continuously strengthened over the past few years thanks to abundance of gas at the global level, increased availability of gas and liquidity in the European market, diversified supply routes and sources and the drive to create an internal energy market with facilitated access to pipelines, storage facilities and LNG terminals. Developing Europe's indigenous gas resources (both conventional and unconventional) may further strengthen Europe energy security and provide significant economic benefits in terms of fiscal revenues, employment and balance of payments.

INSTRUMENTS

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

Statoil believes EU energy and climate policy instruments are in need of reform and the following actions should be prioritised:

1. An EU ETS reform for robustness.

Statoil believes that a robust and well-functioning EU ETS should be the central tool of the EU's climate policy. Rapid action is therefore needed to tackle the current structural oversupply and make the framework robust enough to minimise future political intervention. To this end, Statoil supports:

- **Revision of emission cap and linear reduction factor.** Taking into account the risk of carbon leakage, the EU ETS should be recalibrated to contribute to deliver a 40% GHG emission reduction in 2030, in line with the EU ambition to reduce emissions by 80-95% by 2050 and the trajectory identified in the Roadmap to a Low-Carbon Economy and the Energy Roadmap 2050.
- **Supply side flexibility.** The rigid supply of allowances in the EU ETS has prevented meaningful responses to demand shifts triggered by the economic crisis and other developments. Such shifts are likely to occur in the future, and can be considered either structural or cyclical in nature. The former should be dealt with through the setting of the 2030 emissions cap, and the latter through a mechanism that allows the variation of supply of allowances under the cap. This mechanism would be activated in order to achieve a sufficient threshold for market liquidity (but not be price-driven), and have clear and transparent rules for this activation so as to ensure market predictability and prevent undue political interference.
- **Expansion to new sectors.** The EU ETS should cover all sectors where its application is not excessively complex or where it is impractical for the emitter to be the regulated party. Statoil is favourable to an inclusion of road transport in the EU ETS conditional upon a review or repeal of existing regulations, such as the Fuel Quality Directive, biofuel targets and vehicle emission performance standards.

2. A technology-neutral and market-based framework for renewables.

Changes to RES support schemes are necessary in order to create a level playing field based on a uniform carbon price for all energy sources and restore the market-based approach at the basis of EU energy and climate policies.

In principle, Statoil believes that production subsidies and support schemes to mature technologies should be phased out and a level playing field be provided to ensure competition among all energy sources and technologies. Mature RES technologies should compete on their own merit supported by the pricing signal provided by a robust EU ETS.

Targeted funding should be provided only to support R&D and market scaling of immature low carbon technologies and industries. Such funding must be adequate but limited in time and its design must not undermine the EU ETS. As technologies and industries mature, financial support should gradually be reduced for new projects.

The Commission should work to address the design flaws and distortive effects of national RES support schemes. Statoil supports EU guidelines on support schemes and favours an effective enforcement of EU rules on State Aid.

In light of the above, Statoil suggests looking at the following elements:

- **RES support schemes should be proportionate to avoid over-subsidisation.** The level of support provided to each specific technology should be regularly reviewed in a transparent and fact-based process to take into account technological developments and cost trajectories.
- **Incentivise competition and cost-improvement.** RES support schemes should include mechanisms that incentivise and reward cost-reduction programmes and efficiency in the RES sector. As an active player in the offshore wind sector, Statoil has identified potential for efficiency improvements and cost-reduction, for instance (i) focusing on large-scale farms with higher capacity turbines; (ii) new improved foundation concepts for mass manufacturing and efficient installation; (iii) improved logistics and more robust installation methods; (iv) improved access solutions in order to increase availability and safety. Support schemes should reflect this reality and provide developers with incentives to realise such potential.
- **Limit distortions to competition and market functioning.** RES support schemes should as far as possible not interfere with the bidding behaviours on the wholesale power market. There have been recently repeated instances where RES producers have placed negative bids on the wholesale power markets as their remuneration is guaranteed by output-based support schemes. This has created difficulties for non-subsidised power generators and led to an inefficient use of power generation capacity.

3. Repeal Art. 7A of the Fuel Quality Directive

Climate policies should aim at achieving emissions reduction in the most cost-effective way. However, Art. 7A in the Fuel Quality Directive imposes on fossil fuel suppliers the obligation to set up a complex administrative chain which is unlikely to deliver significant GHG reductions. Art. 7A should therefore be repealed or fundamentally reviewed.

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

See our response to question 4.3.1 for our concrete suggestions and policy recommendations. RES support schemes are the area where most work to optimise and ensure cost-efficiency is needed.

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

Statoil believes EU energy market legislation is adequate to drive the completion of a truly competitive and integrated IEM. Enforcement, both at the EU and national level, is therefore key to avoid fragmentation and encourage investment. We see the following action as particularly beneficial to the completion of the IEM:

- **Implement internal energy market legislation.** A rigorous implementation of the Third Energy Package in all member states is a pre-requisite to the creation of a functioning IEM.

- **Continue to knock down barriers to cross-border trade.** The finalisation and stringent implementation of European Network Codes as well as the expansion of physical infrastructure where needed should be a priority across Europe.
- **Simplify and reduce inconsistencies.** Policymakers should aim at reducing the complexity displayed by the current framework.
- **Adapt market design to new energy realities without bringing about a wave of re-regulation.** The growing shares of variable renewables with near-zero marginal cost may call for a restructuring of wholesale power market and measures aimed at remunerating a sufficient amount of back-up capacity to ensure system reliability ("capacity mechanisms"). This adaptation should not lead to a situation where all power generation assets are subsidised and no room is left for competition and innovation.

Statoil would like to stress its support to the ongoing EU Network Codes development and commend the European Commission, ACER and ENTSOG for their rapid work and cooperative attitude towards stakeholders. We believe the implementation of these codes will contribute to make European energy markets attractive for external suppliers and investors. Statoil supports a more active role by the European Commission and ACER in the implementation of the codes already approved or close to be approved and would favour the publication of implementation guidelines by EU institutions.

COMPETITIVENESS AND SECURITY OF SUPPLY

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

We believe competitiveness and job creation are best served by a clear, simplified and predictable framework based on a single GHG emission reduction target in the context of a global agreement on climate change. This will build an energy system where energy is competitively priced and enables European industry to be competitive with international trading partners. In light of this Statoil sees as crucial elements:

- **Deliver a robust EU ETS and complete the IEM.** The EU ETS, providing a proper investment signal for low carbon solutions, and the IEM, providing incentives for efficiency, economies of scale and gains from trade, should be the two pillars of a new energy and climate framework.
- **Negotiate a global climate agreement.** This will be crucial for European industry as it will increase predictability and secure a global level playing field.
- **Exploit Europe's indigenous oil and gas resources.** While the impact on the European economy will probably not be comparable to that of the US boom, oil and gas production will provide significant economic benefits in terms of fiscal revenues, employment and balance of payments.

It should be noted that emissions reduction beyond 2020 implies a large cross-sectorial change for the EU's economy and energy system from the current state of affairs, particularly in the fields of transport, energy, housing and industry. This change will only be possible if sufficient investments are carried out, which can only take place in a proper economy-wide regulatory framework – including relative prices that make low carbon solutions attractive. The main challenge facing the EU is that such a framework is currently not in place. As a consequence, the projects, employment, innovation and infrastructure development which could have brought growth to the European economy has mostly been put on hold.

The political risk affecting the European energy industry is today high, with detrimental effects on investments. This is partly a consequence of the economic downturn, but also a reflection of lack of common approaches between the 27 member states on *how* the energy transition should be implemented. Setting a single GHG target well in advance help in providing stability and drive investments.

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

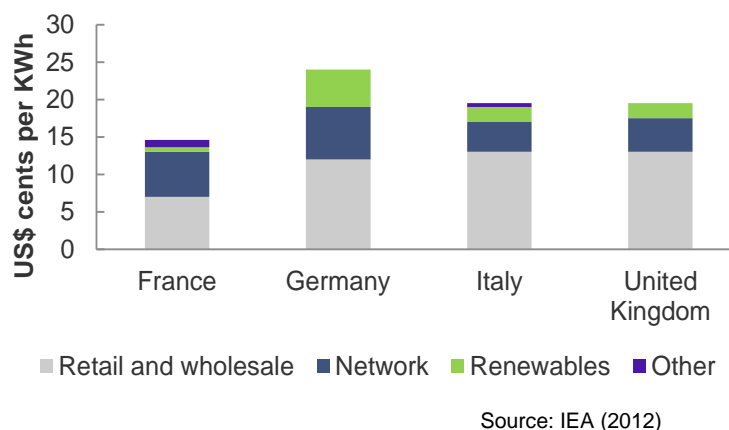
As shown in figure 6, energy price paid by final consumers are the result of the interaction of a series of separate components, which should be analytically split when looking at policies to reduce energy prices:

- **Commodity prices** – widely determined by global supply-demand dynamics and infrastructure constraints.
- **System costs and charges** – pipeline network and grid costs, RES support schemes, socialised infrastructure costs, costs of back-up capacity, capacity remuneration mechanisms, storage.

- **Energy policies and resulting energy mix** – e.g. national policies regarding nuclear, power plants and renewables.
- **Taxes and levies** – set primarily by member states.

Energy policies and taxes can be reformed to ensure more competitively priced energy for consumers. The EU 2020 framework is likely to result in a large increase in system costs and charges. A RES-intensive energy mix displays much higher infrastructure costs to integrate decentralised power generation into the grid, guarantee sufficient generation and transmission capacity to the intermittency of RES such as wind and solar and develop costly energy storage solutions.

Figure 6: Final household prices in the largest European power markets



The EU and member states should work to remove market barriers, stimulate investment in production and transmission, take advantage of indigenous oil and gas reserves and, most importantly, make the IEM attractive for external suppliers.

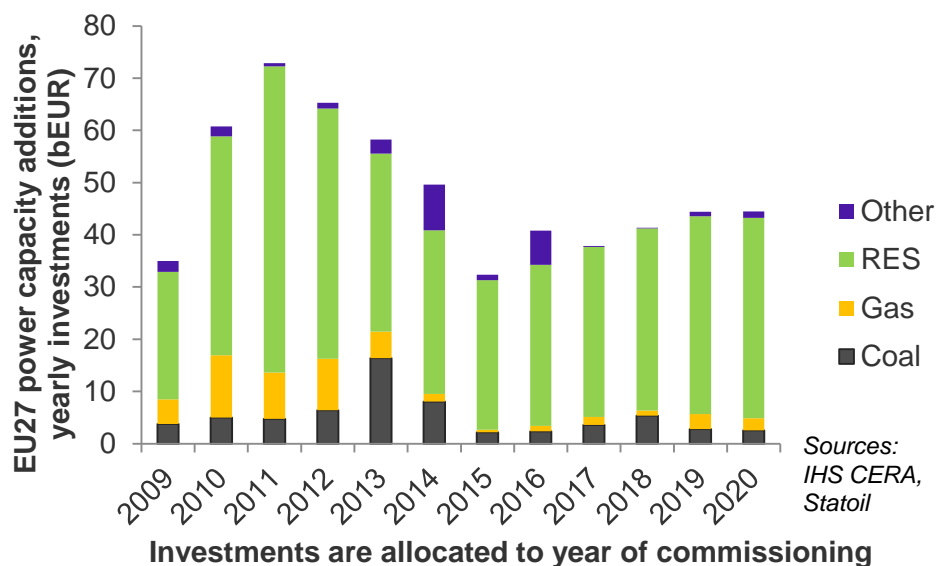
4.4.5. How to increase regulatory certainty for business while building in flexibility to adapt to changing circumstances (e.g. progress in international climate negotiations and changes in energy markets)?

Regulatory certainty for business is primarily provided by a simple, consistent and predictable framework which industry can base its investment decisions on. As the energy sector is characterised by capital intensive projects and long investment cycles, investors need a reasonable degree of visibility in the long-term. Policies should therefore be agreed in advance and aimed at delivering certainty and reduced regulatory risk.

The complexity of the current framework and the high regulatory risk due to uncertainty regarding future energy and climate policies have led to a situation where the only investments being made in the European energy sectors are mainly RES project with a long-term rate of return guaranteed by support schemes, as shown in figure 7. No investment decision is currently based on the EU ETS due to the low level of its price signal and the uncertainty regarding its future.

Such a situation is best addressed by an EU ETS reform that would make the system resilient to exogenous shocks in demand for EUA (see our answer to question 4.3.1). Progress in international negotiations and technological breakthroughs should be built into such a flexibility mechanism. These factors should also be taken into account when determining the eligible parties for free allocation and the amount of allowances they can receive.

Figure 7: Realised and estimated EU-27 investment in power generation per source (2009-2020)



In order to reduce regulatory risk and secure investment, it is important that retroactive changes are avoided and that all measures are agreed in advance and elaborated in consultation with industry.

4.4.7. 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?

European indigenous energy sources need a stable regulatory framework and public acceptance to be exploited.

We believe that the current EU regulatory framework is sufficient for the current stage of conventional and unconventional gas developments. National agencies may then be best placed to take into account local considerations and determine operational requirements and licencing. Some non-binding guidelines at EU level could go some way to alleviating external uncertainty around European indigenous development. Such a benchmark could remove the hesitancy and delays around licencing and help establish a united European position on for example shale gas activities.

When it comes to public acceptance and understanding, the EU can play a role in ensuring that the process for assessing shale gas development remains a factual one and giving the public access to information. The EU and more particularly national authorities can support initiatives to promote dialogue with local communities, as industry currently does.

4.4.8. 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?

Statoil believes the development of a functioning IEM is the best instrument to improve security of energy supplies in Europe. With market-based price formation, price levels will send signals on where there is too much or too little capacity and investors will act accordingly. At the same time, incentives to book long-term capacity need to remain in place to avoid exposing TSOs to excessive risk of non-use and allow for new value chains to be established.

The EU also needs to make full use of the flexibility made available by TPA exemptions to (i) allow project developers to manage their risk by allowing for higher than regulated rate of returns, (ii) allow shippers to sign of long-term transportation agreements, and (iii) avoid consumers being impacted by a generalised increase of transportation tariffs.

The removal of barriers to cross-border trade and the interoperability between adjacent systems, the implementation of physical and non-physical reverse flow at all security of supply relevant interconnection points, the creation of incentives for an efficient use of existing and future infrastructure are also fundamental steps to minimise the impact of local outages or supply shortages in electricity and gas supplies.

We believe that the finalisation and rapid and effective implementation of European Network Codes, along with the expansion and upgrade of physical infrastructure where needed, will also serve to enhance Europe's energy security. The codes have a role to play in avoiding the introduction of onerous non-market based emergency and security of supply measures, which must remain mechanisms of last resort.

CAPACITY AND DISTRIBUTIONAL ASPECTS

4.5.3. Are new financing instruments or arrangements required to support the new 2030 framework?

As argued in our answer to question 4.3.1, Statoil believes all energy sources should be supported by the pricing signal provided by a robust EU ETS.

However, we recognise that the carbon price, however robust, may not be sufficient to stimulate innovation and drive the development of new low-carbon technologies. The EU ETS should therefore be accompanied by additional targeted funding to support R&D and market scaling of immature low carbon technologies. Funding provided must be adequate but limited in time and its design must not undermine the EU ETS.

Statoil sees a particularly strong need to incentivise investment in in early demonstration of carbon capture and storage (CCS). According to all scenarios in the Energy Roadmap 2050, large-scale deployment of these technologies after 2030 is necessary for Europe to deliver on its long-term energy and climate ambitions. Statoil is providing extensive feedback on financing instruments and support schemes for CCS in the context of the ongoing dedicated consultation by the European Commission.