



**Consultation:
Energy Roadmap 2050**

**Response by:
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Energy Roadmap 2050

1. How can the credibility of the work on the transition to a low-carbon energy system in 2050 be ensured?

Given the significance of the Roadmap, in terms of setting the future direction for EU policy, it is important that decisions are made on the basis of the best available data. This includes the recognition that relying on one model (PRIMES) is not optimal – analysis should be made using other models as a means of cross-checking assumptions. Work on the transition to a low-carbon energy system should aim to remain as technology and energy source neutral as possible.

In terms of credibility, the most important element of the Roadmap will be whether or not the transition scenarios it presents have a good probability of success. Given the significant and enduring impact of the financial crisis, together with the fact that all energy costs will ultimately be passed on to consumers, significant focus should be placed on affordability. Alternative scenarios should be constructed which identify more affordable pathways to the 2050 goals, including increased utilisation of natural gas in the power sector. Analysis must include projected costs for the level of investment needed to provide back-up power generation for intermittent renewable energy sources. This should be made transparent and communicated to Member States and citizens.

Likewise, progress towards a low-carbon economy on a global scale should be rooted in the modelling, acknowledging the international aspects of moving towards a low-carbon economy (for example, the EU will be increasingly dependent on turbines and solar panels manufactured in China and that CO₂ reductions in the EU may be negated by economic growth in other regions). The EU cannot afford to be out of pace with regard to economic development with the rest of the world.

OGP believes any underlying modelling presented as part of the Roadmap must take full account of all low-carbon energy sources, including fossil fuels, especially as extensive modelling on the part of the IEA has confirmed that fossil fuels will remain the dominant sources of energy for the next decades.

We believe as a minimum, modelling linked to the Roadmap should be updated once every 5 years in order to take into account the latest scientific data, technological achievements and economic growth. Moreover, stakeholders should have the chance to input the scenarios regularly.

2. EU Energy policy may be increasingly influenced by developments in global energy supply and demand, international cooperation on climate and initiatives taken outside the EU...what other developments should be considered?

Tick boxes: further development of an international framework for cooperation on climate; global energy efficiency and demand developments; global development of carbon capture and storage (CCS).

As a liberalised market, EU energy policy is always to some degree influenced by developments in global energy supply and demand. No matter which energy sources and technologies constitute the energy mix of the future, OGP believes a producer-aware external energy policy is essential to avoid supply problems.

Production is at the core of any supply chain, and a strong producer-consumer relationship that tackles transit and infrastructure challenges jointly is likely to be the most effective guarantor of secure supplies. Measures such as infrastructure development and ensuring supply in case of disruption are also important, as is the optimal use of indigenous energy sources. Maximising the potential of indigenous EEA oil and gas resources which are estimated to be up to 100 billion boe must remain a clear policy objective. This will require stability of EU energy and climate policies in order to set a clear long-term energy strategy that encourages the necessary investment and technology development. Finally, while public authorities may act as facilitators, commercial negotiations and decisions should remain within the realm of industry.

OGP believes greater gas usage, together with energy efficiency, provide the optimal solution for meeting EU energy demand delivering affordability, competitiveness and low carbon outcomes. A stronger EU line is needed on this point. Energy efficiency will be particularly important in emerging markets.

The recent step change technologies that have commercialised ‘unconventional gas’ have greatly increased global gas reserves ensuring abundance, accessibility and affordability for decades to come. Within the EU ‘unconventional gas’ potential also exists and it is important that the regulatory framework permits swift appraisal. Even if the EU resource proves to be less prolific, EU consumers will benefit from the global abundance and more affordable prices via LNG supplies, the development of new pipelines and related infrastructure. Increased use of abundant, affordable and clean natural gas will help drive the economic engine of Europe, creating jobs and improving emissions by embracing the idea of finding the most efficient solutions to our energy objectives.

Finally, by 2050, natural gas with CCS may be an established technology, helping to progressively decarbonise the electricity sector. In this timeframe, CCS will play an important role in sustaining worldwide low carbon economic growth. As well as playing an important role in centralised electricity generation, through micro-CHP, natural gas could also play an important role in increasing decentralised electricity generation in the EU.

3. What societal challenges and opportunities do you think are likely in Europe over the next decades as a result of changes in the EU and global energy system?

Tick boxes for: increases in energy prices and energy poverty; moving of energy-intensive industry to other parts of the world; other (gas)

With the increasing demand for energy, we believe there is space for all forms of energy to compete. Global demand for natural gas will increase by two per cent each year until 2030, and usage is expected to grow three times faster than oil and coal¹. Diversity will be important in the energy mix, but affordability, flexibility and security of supply will be key challenges.

Natural gas can deliver on those challenges whilst at the same time acting as a low-carbon source of energy. Unfortunately, there is minimal acknowledgement of either the incomparable advantages provided to the EU from the use of natural gas, nor mention of the fact gas will remain a convenient source of primary energy (not only as back-up for intermittent renewable energy sources) and maintain a major share of the EU energy mix for decades to come.

We therefore consider it essential that there is recognition of gas at a European level as a destination fuel and not only a transition fuel – anything less will deter investment in the infrastructure Europe needs during the entire period to 2050. This is the key area where we believe a stronger EU line is necessary. OGP believes that by ensuring a diversified supply of fossil fuels combined with the further development of market level prices for renewables (through the phasing out of subsidies) are key components in ensuring affordable energy supplies.

Advanced, proven, and readily available, gas technologies, such as CCGT and CHP, can halve EU emissions by displacing coal. A switch from coal-fired to modern gas-fired power plants could alone meet the 2020 CO₂ emissions reduction target. When combined with carbon restraints, the increased use of natural gas for heat and power generation will be an important factor in terms of maintaining a competitive industrial base within the EU. Furthermore, it would help maintain a higher standard of living for EU citizens than would be the case if unnecessarily expensive energy sources were installed.

4. Which are the main areas...you think might need further policy development at EU level in a 2050 perspective?

Tick boxes for: development of infrastructure; RTD, innovation; internalisation of external costs

Alongside the full implementation of existing internal energy market rules, developing new infrastructure for proven technologies, will provide a greater ability for the EU to smooth out total energy demand by sharing energy efficiently between Member States.

The Commission should sustain a focus on encouraging indigenous oil and gas production from the EEA in the coming decades. Whilst the volumetric potential remains material, the commercial viability and competitiveness of many new reservoirs will be challenged by the increasing maturity (high unit costs) of the basin.

While we believe these policy areas will need careful examination in the period to 2050, we caution the Commission to avoid policy overload – any potential legislative proposal must be thoroughly assessed especially to avoid picking technology ‘winners’ and ‘losers’.

5. Which milestones would you see as most useful...for the transition to a low-carbon energy system in Europe?

OGP has no position in terms of setting milestones either by date or targets; we believe this will ultimately be a political decision.

Establishing interim targets can force premature adoption of non-competitive technologies, and should be avoided. The focus must be on maintaining flexible energy systems that are able to deliver the best solutions when they are needed. However interim reviews and checkpoints could enable better planning and hence facilitate better policy decisions.

OGP believes, however, that a stable, consistent regulatory policy is central to ensuring a smooth transition to a low-carbon energy system. The EU has set significant targets for 2020, notably in terms of CO2 emissions. The EU priority must be to focus on these very ambitious targets before prematurely “locking in” the post 2020 pathways. Future CO2 policy must not be focused on restricting emissions in the energy sector but across all sectors responsible for emissions. Likewise, a milestone objective should not prejudge the composition of the energy mix. We further believe that taking technological developments into account, the market is best placed to balance sustainability and affordability. Market-based milestones provide a pragmatic approach.

6. What are the most likely key drivers for the future energy mix in the EU?

Tick box for: other

Costs, availability, the openness of the market, together with regulatory requirements are the most likely key drivers for the EU’s long-term energy mix.

Ultimately all of the listed elements will have an impact on the future EU energy mix. The future energy mix should not be mandated; rather the market and technological development will determine the optimal outcomes. OGP also draws attention to the fact technological surprises are inevitable over the next 40-year period and the fact technology develops in an often unpredictable way – we have seen in the oil and gas industry how technology improvements can change and challenge previous ‘certainties’, for example, the impact of horizontal drilling and the exploitation of unconventional gas.

In the short-term, the continuing impact of the financial crisis will influence the EU energy mix. This crisis has seriously affected the financial resources of industry and governments alike. Given the current EU policy focus on electrification of the energy mix as a way of lowering CO2 emissions and the massive deployment of public and private financing this will require, equal attention must be given to proven technologies that can deliver swift and economically efficient contributions to achieving this goal. Natural gas-fired power is such a technology and OGP believes that greater gas usage and energy efficiency are the optimal solution for meeting EU energy demand economically and retaining international competitiveness, while significantly reducing CO2 emissions.

7. Additional suggestions and thoughts?

While the EU aspiration is to create energy “paths” to 2050, we urge policymakers to ensure they remain unbiased toward energy technologies, allowing the most affordable and secure energy sources to make their optimal contribution.

In addition to the above, the period of transition to a low carbon economy must be carefully managed, to ensure that the interim period is not sacrificed for the end goal. Equally the process should be transparently communicated, i.e. that whilst the overall benefits will be experienced by the EU at a macro-level, on the micro level there will be negative outcomes, including for example the loss of certain industries and their associated jobs. Whilst new jobs could be created in developing lower carbon technologies, a variety of factors (including relocations, skills and age) would prevent easy switching of workforces from sector to sector.

OGP would like to underline the abundance of natural gas and the fact that all serious future energy demand scenarios, such as presented by the IEA, demonstrate gas will play a huge role for the next 40 years and beyond.

In the future, the EU is likely to be even more energy inter-dependent. However, there should be recognition that the high level of EU regulation is in danger of creating a barrier for investors, especially as the regulatory system lacks stability or predictability. It would be welcome if the EU could examine opportunities to reduce regulation and maintain the EU as an attractive and globally competitive market for investors.

¹ BP 2030 Energy Outlook. See:

http://www.bp.com/liveassets/bp_internet/globalbp/globalbp_uk_english/reports_and_publications/statistical_energy_review_2008/STAGING/local_assets/2010_downloads/2030_energy_outlook_booklet.pdf