World Coal Association contribution to DG Energy public consultation on the 2030 framework for climate and energy policies

QUESTIONS

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

Energy and climate policies currently enacted in the EU produce high energy prices and result in a growing problem of energy poverty across Europe. The 2030 policy framework should be designed to minimise the above trends.

Over the past few years Europeans have seen their energy costs locked into an upward spiral, deteriorating the competitiveness of European businesses and putting more households at risk of energy poverty. Across Europe, average electricity prices for households and industries have increased by 29% between 2005 and 2011. Over the same period of time electricity prices in the USA increased by only 5% and in Japan by 1%.

In the UK household electricity prices jumped even higher – we're seeing an increase of over 80% since 2005. This was paralleled by an unprecedented surge in the number of households affected by energy poverty in the UK, from 2 million to 5 million.

European energy and climate policies have allowed the problem of energy poverty to grow and now many households struggle to pay their energy bills or are unable to maintain sufficient level of heating during winter. Today **between 50 and 125 million**[1] people are affected by energy poverty in Europe. In Bulgaria, Portugal, Lithuania, Romania, Cyprus, Latvia and Malta over 30% of people are unable to keep their homes warm and face disproportionately high energy bills. Meanwhile over 20% of people living in Greece, Poland, Italy, Hungary and Spain face the same challenges.

The problem of fuel poverty in Europe goes beyond mere considerations of comfort. In England and Wales alone, **27,000 people**[2] die each year because of cold temperatures and 10% of this is directly attributed to fuel poverty. Extrapolating these figures to the EU level, well over 20,000 people could be dying because of unaffordable fuel every year in Europe. However, this is a very conservative estimate. Bjorn Lomborg estimates that around 1.5

[1] http://www.fuel-poverty.org/files/WP7_D26-1_en.pdf
[2] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48297/4662-getting-measure-fuel-pov-final-hills-rpt.pdf

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million people could be dying prematurely each year because of the cold.

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?

Firstly, EU energy and climate targets for 2030 should be technology-neutral and include target for reducing the cost of energy for end-users.

Climate and energy targets currently in place under the EU's Climate and Energy Package have resulted in higher energy prices for end-users in Europe. In fact The UK Department of Energy and Climate Change (DECC) said in its **impact assessment report**[3] that the EU's 2020 decarbonisation targets and related policy initiatives will result in a 12% to 14% increase of electricity prices for households by 2020 and 16% to 18% increase in energy prices for industrial consumers. DECC estimated that these changes would result in 1.4 million additional households living in energy poverty in the UK by 2020.

Secondly, to protect consumers and minimise the cost of transition to the low-emissions economy the European Commission should propose a target for reduction in average EU energy costs by 2030.

Future targets should be technology-neutral. The renewable energy target currently in place favours certain low-carbon energy technologies and excludes clean energy sources such as power plants fitted with CCS. Given the EU's support for the demonstration and commercialization of CCS, power plants fitted with CCS technologies should be eligible under any future clean energy targets proposed by the EU.

Thirdly, the European Commission should propose for the efficiency target to be broadened to cover not only primary energy demand but also energy production. The current average efficiency of coal-fired power plants in the EU is around 38% and state-of-the-art technologies can achieve efficiencies of up to 46%. Given that increasing the efficiency of coal-fired power plants by 1% reduces CO_2 emissions by between 2 - 3%, emissions from coal-fired power plants in the EU could be reduced by up to 24% by simply applying the most efficient coal combustion technologies.

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

EU climate and energy targets should cover efficiency improvements at coal-fired power plants - one of the most cost-effective means of reducing GHG emissions and CCS technology – a key low-carbon energy technology necessary to reduce the overall cost of climate change mitigation.

[3] **http://www.ukccsrc.ac.uk/system/files/euclimateenergypackage.pdf**

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In its **recent report**[4] the IEA identified the improvement of average coal-fired power plant efficiencies as one of four key actions to be taken globally to put the world back on track with the 2°C target by 2020 and re-emphasised the importance of CCS for limiting the cost of mitigating GHG emissions. In the power sector, delaying introduction of CCS from 2020 to 2030 would increase the investment required globally to keep the world on track for the 2 °C target by more than $1 trillion.

TARGETS: 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?

One of the key aspects of energy security is the reliability of energy supply at affordable prices and the ability of the energy system to react promptly to sudden changes in the supply-demand balance.

Current EU climate and energy policies favour GHG mitigation over considerations relating to energy security, such as the reliability of supply or cost of energy to the end user. This is demonstrated by growing energy prices, growing share of intermittent energy sources in the EU's energy mix and potentially higher reliance on imported energy sources such as natural gas.

To reinforce the security of energy supply in the EU, the European Commission should ensure that all energy fuels, including coal, are integrated in the EU's low-carbon strategy.

Coal presents a number of characteristics which make it a valuable energy fuel from the point of security of energy supply.

First of all, coal is Europe's most abundant energy fuel and over 60% of coal used in the EU is produced domestically, as opposed to 33% of natural gas.

Coal is also known to be one of the most affordable sources of energy in Europe, providing electricity at half the price of offshore wind turbines and a quarter of the price of solar PVs – not to mention the additional comparative advantage of coal in terms of non-intermittent energy supply which does not need back-up generation capacity.

Coal stockpiles also play the role of energy storage, available in case of higher-than-average energy demand or unexpected supply interruptions across the energy system. According to the US Energy Information Administration electric utilities in the USA often try to maintain a 60-day supply of coal.

Coal-fired plants have a much higher availability, or average load factor, than many other alternatives which are exposed to weather variations. Typically, coal-fired power plants provide base-load 24/7 electricity supply – as opposed to the more specific peak-load supply provided by more expensive and intermittent technologies.

[4] **http://www.iea.org/publications/freepublications/publication/WEO_RedrawingEnergyClimateMap.pdf**

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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?

Firstly, EU climate and energy policies should aim at delivering affordable electricity for households and businesses in the EU, for example via the introduction of a target relative to the reduction of the cost of energy for end-users.

Across Europe, average electricity prices for households and industries have increased by 29% between 2005 and 2011. Over the same period of time electricity prices in the USA increased by only 5% and in Japan by 1%.

High energy prices in Europe create a competitive disadvantage for industries and businesses located in Europe. For households higher energy prices increase the share of disposable income spent on energy services and therefore reduce household consumption which is vital for the EU economy.

Secondly, EU climate and energy policies should be inclusive of all sectors of economic activity and not lead to the closure of domestic production of energy fuels, such as coal.

Coal mining provides almost 600,000 jobs in the EU and the use of an indigenous energy resource allows many countries to maintain a healthy balance of payments.

The value of EU-wide coal and lignite production totals more than € 27 billion each year. Euracoal calculates that if coal used in the EU was replaced by natural gas, then the annual cost would exceed €50 billion, with the entire sum leaving the EU to finance imported natural gas from elsewhere.

Thirdly, subsidies undermine job creation, growth and competitiveness – this is just as relevant when considering support for renewable as for fossil fuels. EU policies should envisage a clear exit date and strategy for such subsidies

COMPETITIVENESS AND SECURITY OF SUPPLY: 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?

In the interests of competitiveness and security of supply, EU should favour domestically available energy fuels, such as coal, in its energy mix while at the same time reducing the associated GHG emission via more efficient use of these resources.

GHG saving potential is immense.

In its **recent report**[5] the IEA identified the improvement of average coal-fired power plant efficiency as one of four key actions to be taken globally to put the world back on track with the 2°C target by 2020.

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Globally, if new coal-fired generating capacity added between 2000 and 2011 had used advanced coal technologies, cumulative emissions of CO_2 over that period would have been reduced by almost 2 Gigatonnes – this is three times the expected effect of the Kyoto Protocol.

Looking ahead 2.4 Gt of CO_2 could be saved annually if all coal-fired power plants were upgraded to state-of-the-art coal combustion technologies. This is more than total annual CO_2 emissions of India – the third largest CO_2 emitter in the world and represents around 20% of total annual CO_2 emissions from the power sector.

The efficiency potential in Europe is also considerable given that the current average efficiency of coal-fired power plants in the EU is around 38% and state-of-the-art technologies can achieve efficiencies of up to 46%. Given that increasing the efficiency of coal-fired power plants by 1% reduces CO_2 emissions by between 2 - 3%, emissions from coal-fired power plants in the EU could be reduced by up to 24% by simply applying the most efficient coal combustion technologies.

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