

EU Strategy for LNG and gas storage consultation

Coalition for Energy Savings response

September 2015

Question 4: Given uncertainties over future gas demand, how would you assess the risk of stranded assets and lock-in effects (and the risk of diverting investments from low carbon technologies such as renewables and delaying a true change in energy systems) and weigh those against risks to gas security and resilience? What options exist in your view to reduce and/or address the risk of stranded assets?

Question 18: Given uncertainties over future gas demand, how would you assess the risk of stranded assets (and hence unnecessary costs), lock-in effects, the risk of diverting investments from low carbon technologies such as renewables, delaying a transition in energy systems and how would you and weigh those against risks to gas security and resilience? What options exist in your view to reduce the risk of stranded assets?

Response to Questions 4 and 18:

There is a high risk of stranded assets and lock-in when looking to address gas security and resilience. The solution may not lie in increasing supply and the potential for energy efficiency improvements should be considered to reduce this risk. There is a need to take a comprehensive approach to system planning which includes looking at the potential for energy savings. Reducing demand through energy efficiency measures will reduce the need for energy production, storage and distribution capacity including LNG and gas storage.

The European Commission's own projections¹ (EU Energy, transport and GHG emissions trends to 2050 reference scenario 2013) show reducing gas consumption to 2030 (-0.9% annual reductions between 2010 and 2020 and -0.2% annual reductions between 2020 and 2030). This is with only a 21% improvement in energy efficiency to 2020. The cost effective potential for energy savings, as shown in research by Fraunhofer ISI for the European Commission², would reduce primary energy consumption by 40%, thus accelerating already falling gas demand.

Energy planners regularly underestimate energy savings in the projections that they use for large-scale infrastructure planning and funding allocation, such as projections by ENTSO-E and ENTSO-G, and those used for Projects of Common Interest (PCI) funding allocation. For example, the gas demand projections used by the Commission to allocate funding for gas infrastructure projects under the Connecting Europe Facility are 30% higher than the Commission's reference scenario for gas demand by 2030, and 72% higher than projections if a 30% energy savings target is met³.

¹ European Commission, 2013, EU Energy, transport and GHG emissions trends to 2050 reference scenario 2013.

² Fraunhofer ISI et al, 2014, Study for the European Commission evaluating the current energy efficiency policy framework in the EU and providing orientation on policy options for realising the cost-effective energy efficiency/saving potential until 2020 and beyond.

³ E3G, 2014, Energy Security and the Connecting Europe Facility, September 2014.

As things stand there is no requirement to ensure consistency between the demand projections used by official EU planning authorities and those used by the Commission, which assume the success of EU energy savings targets and policies. It is well understood that planners need contingencies, but greater attention is needed to 'energy efficiency proof' energy projections in order to prevent overestimation of demand and consequently superfluous and wasteful investments in energy infrastructure.

Question 5: The Energy Union commits the EU to meeting ambitious targets on greenhouse gas emissions, renewable energy and energy efficiency, and also to reducing its dependency on imported fossil fuels and hence exposure to price spikes. Moderating energy demand and fuel-switching to low carbon sources such as renewables, particularly in the heating and cooling sector, can be highly cost effective solutions to such challenges, and ones that Member States will wish to consider carefully alongside decisions on LNG infrastructure. In this context, do you have any evidence on the most cost efficient balance between these different options in different areas, including over the long term (i.e. up to 2050)?

Response to Question 5:

The potential for energy savings and efficiency should be considered first in all decision-making related to energy. Where energy efficiency improvements are shown to be most cost-effective, considering also their role in driving jobs and economic growth, increasing energy security and reducing climate change, these should be prioritised. This would ensure a cost-effective balance between different options. Tapping the full cost-effective potential for energy savings would reduce greenhouse gas emissions, and reduce Europe's dependency on imported fossil fuels and exposure to price spikes.

Research by Fraunhofer ISI has shown that realising the cost-effective potential for energy savings final energy demand could be reduced by 38% by 2030 compared to PRIMES 2007 projections for 2030⁴. The potential is highest in the buildings sector and therefore considerable energy savings would be made in this sector, which would also reduce the overall gas consumption of buildings.

⁴ Fraunhofer ISI et al (2014) Study for the European Commission evaluating the current energy efficiency policy framework in the EU and providing orientation on policy options for realising the cost-effective energy efficiency/saving potential until 2020 and beyond.