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Annex – E3G Response to consultation on an EU strategy for liquefied natural gas and gas storage

Question 1: Do you agree with the assessment for the above regions in terms of infrastructure development challenges and needs to allow potential access for all Member States, in particular the most vulnerable ones, to LNG supplies either directly or through neighbouring countries?

Question 2 bis: What, in your view, are reasons, circumstances to (dis)favour new LNG investments in new locations as opposed to pipeline investments to connect existing LNG terminals to those new markets?

The assessment of the consultation paper is correct. The lesson is that there is no European-scale security of supply crisis, but rather local concerns and a lack of solidarity and cooperation between Member States.

Concerns about security of gas supply are predominant in Europe, especially in CEE countries. Latvia, Lithuania, Estonia, Finland and Slovakia are fully reliant on Russia for their gas use; Bulgaria, Hungary, Slovenia and Greece are dependent on Russia for more than two thirds of their gas consumption. But these countries most vulnerable to disruptions in Russian gas supply only represent 7% of total European gas demand; their collective needs only represent about a fifth of Russia's gas exports to Europe, and a volume is equivalent to a third of the EU's gas storage capacity.

Europe has significant gas import infrastructure: the EU currently has 197 bcm of LNG import capacity – equivalent to 48% of total EU demand in 2014, with a further 77 bcm of LNG import capacity under development. This is enough to cover all gas import projections until 2040. Such import capacity is however greatly underutilised (the utilisation factor of existing LNG import facilities is only 24%) and does nothing to alleviate security the concerns of the most vulnerable countries.

The concerns of Europe's most vulnerable countries can be addressed through a targeted approach. A European LNG strategy must prioritise the case of Member States most vulnerable to interruption in Russian gas supply, not only by reducing Russian imports, but generally by creation flexible options these countries – developing access to other source(s) of supply, to solidarity mechanisms, supporting switching to electricity for heating, or to retrofitting an outdated building stock, etc..

This could be done through an action plan offering a clear timeline for

- > Brokering regional cooperation agreements between relevant governments, TSOs, regulators.
- > Developing credible solidarity mechanisms supporting these countries in difficult times.
- > Identifying projects of critical importance for these countries' flexibility of supply.
- > Unlocking access to finance for such projects, on condition that these countries are taking action to minimise their new infrastructure needs through demand reduction and increased regional cooperation.



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Supporting the most vulnerable countries in developing these options would lessen concerns, show solidarity, increase Europe's and in particular these countries' bargaining power towards large energy suppliers.

Question 1 bis: Do you have any analysis or view on what an optimal level/share of LNG in a region or Member State would be from a diversification / security of supply perspective?

Please answer by Member state / region.

Question 2: Do you have any analysis (cost/benefit) that helps identify the most cost-efficient options for demand reduction or infrastructure development and use, either through better interconnections to existing LNG terminals and/or new LNG infrastructure for the most vulnerable Member States?

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)?

Such analysis would be best developed as part of a wider initiative to strengthen Europe's evidence base supporting energy infrastructure choices decisions, which would:

- > Impose a reality check on its gas demand scenarios and ensure that the selection and prioritisation of projects in the PCI list and Connecting Europe Facility is based on scenarios consistent with EU GHG, RES and EE targets.
- > Inform the impact on gas volume and infrastructure needs of other elements of Europe's energy system such as development of renewable energy, progress on energy efficiency, electrification of heat and transport, use of LNG in ships and trucks, etc.
- > Develop a Cost and Benefits Analysis for infrastructure projects taking into account their impact on a region's flexibility of gas supply options, and also their economic viability under a hierarchy of actions (a) demand side investment b) electrification c) greater utilisation of existing and accessible infrastructure).
- > Develop metrics to evaluate the risks to consumers, and risks to investors, of specific projects.

Question 4: What in your view explains the low use rates in some regions?

There are considerable barriers to maximising use of existing import capacity:

- > Market forces: LNG imports have suffered from competition with relatively cheaper pipeline gas, or domestic production – although prices are now converging.
- > Insufficient intra-EU network: 95% of EU LNG import infrastructure is situated in Western Europe, and internal gas transmission infrastructure is insufficient to connect LNG



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terminals to CEE countries (several of them have no access to this supply). 76% of new LNG import capacity is still being built in the West.

- > Lack of TSO cooperation: even more regionally, lack of infrastructure has prevented several countries from getting access to existing LNG import capacity. Projects such as the interconnector Greece-Bulgaria (ICGB) has suffered from delays mainly due to lack of commitment from market participants. Trilateral decision making in the Baltic states is also proving slow and an important hurdle to the development of a competitive gas market in the region.
- > Gazprom's market power: analysts consider that Gazprom has sufficient market power to be able to react to any market development, and to undercut any competing offer to preserve market share.

Question 4 bis: 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?

First, the European Commission should impose a reality check on its gas demand scenarios and ensure that the selection and prioritisation of projects in the PCI list and Connecting Europe Facility is based on scenarios consistent with EU GHG, RES and EE targets. More generally, the European Commission should launch an initiative to improve the evidence base and metrics on which rely infrastructure choices decisions.

Secondly, legislative safeguards should be introduced to limit the risk of stranded assets. This could for instance include the introduction of a 'cost effectiveness stress test' when evaluating gas import projects, i.e. testing their cost effectiveness against a hierarchy of actions: a) demand side investment b) electrification c) greater utilisation of existing and accessible infrastructure.

It should also limit the potential to recover costs through regulated tariffs for projects which do not meet this stress test, and offer guidance through the mandated closure of greatly underutilised assets with little prospects for future uptake and which are not critical to a region's flexibility of supply options. This approach would aim to ensure that volume risk is mainly borne by investors rather than European consumers.

It is also important to understand that the level of dependence on Russian gas imports or other suppliers, and utilisation rate of existing LNG import facilities mainly depend on market forces over which European leaders have no or little control on. The evolution of Asian and Latin American markets, Japan's decisions towards its nuclear fleet, or security risks in the Middle East country will have an impact on where Member States source their gas from.

Gazprom's strategy towards Europe alone has significant impacts on Europe's gas import profile.

Ultimately, most of the financial risk – whether paying for underutilised or stranded assets due to over capacity, or dealing with high gas prices and/or market shocks due to lack of supply flexibility - is borne by consumers. The goal of a European strategy on gas should be to find a fair balance between increased flexibility of supply through diversified gas supply routes and the protection of European consumers – residential, commercial or industrial – by ensuring that money is not wasted. A European LNG strategy should propose ways to assess the value of diversification and increased supply flexibility while defining safeguards to limit the risk of public money being spent on projects bringing little value to consumers.

Question 9: How do you see worldwide LNG markets evolving over the next decade and what effects do you expect this to have on EU gas markets?

Question 10: Are there specific actions the EU should take, in dialogue with our international partners, including in trade negotiations, to improve its functioning and/or to make the EU market more attractive as a destination for LNG?

A European LNG/gas strategy must aim to reduce Europe's exposure to an increasingly uncertain and competitive geopolitical landscape, and avoid fuelling a wide range of instability risks in energy producing countries through supporting corrupted and undemocratic regimes.

The reliability of new trading partners is more important than the number of import routes. Since the beginning of the most recent Ukrainian crisis, the European Commission's strategy on energy security has focused on diversification of gas supply via a number of import routes - "Algeria and Turkey; Azerbaijan and Turkmenistan; the Middle East; Africa and other potential suppliers" as well as on increasing access routes to gas imports through new Liquefied Natural Gas terminals. None are without problems.

Azerbaijan is facing international condemnation on its human rights abuses as well as growing domestic discontent. Turkmenistan, one of the most repressive states in the world, faces a growing threat from the Taliban along its 744km-long border with Afghanistan. A more assertive Russian policy in the Caspian has also sparked fears of a new geopolitical clash over the region's gas resources. Availability for export of Middle Eastern and North African gas remains far from certain and a new wave of terrorism undermines prospects of future stability.

It is moreover highly uncertain to what extent new suppliers, such as the US and Eastern Mediterranean countries, can be reliable partner in the future. Shale gas production in the US is scaling back due to low global prices and dwindling resources and is unclear the extent to which the US administration is willing to risk increasing domestic prices and its own energy security through new export in order to meet Europe's diversification needs. New discoveries off the coasts of Israel and Egypt have yet to be proven commercially available and given rising regional energy demand it is unclear how much gas will be available for export to Europe. The same is true for Iran's gas resources given increasing competition for securing gas supply from China and India.

Taken collectively, these challenges suggest that the a narrow focus developing new gas import routes ultimately may neither guarantee Europe's energy security nor help stability in



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Europe's neighbourhood. Europe's approach to energy security will have to account for the rapidly-changing landscape of geopolitical risks facing a number of suppliers and transit countries.

Mounting security, resource and economic risks in LNG suppliers

Algeria is expected to become a net-energy importer by 2030 due to rising domestic demand driven by population growth. Like many countries in the Middle East and North Africa region, Algeria is already experiencing the effects of climate change in the form of stronger warming temperatures and vast areas of rainfall deficits especially in the south. Climate change is expected to heighten the country's challenges of preserving food and water security. Failing to preserve energy, food and water security will further feed directly into the grievances, especially of the vast young unemployed population, that sparked the "Arab Spring" uprisings.

Nigeria's 175 million inhabitants, oil and gas dependent economy is in bad shape. Opaque dealing and corruption have increased over the past decade and low oil prices are crimping revenues and shattering budget forecasts. Nigeria's 36 states, most of which rely on fossil fuel revenues distributed by the federal Government, are having trouble paying salaries and pension. In June, dividend from the state natural gas company were drawn in a stop-gap attempt to pay salaries, yet conditions lack to address structural issues to address rising social and economic discontents. At the same time the war against the terrorist group Boko Haram is flailing and its allegiance to the Islamic State (IS) is a rising global security concern.

Despite bring the most prosperous part of the Arab world, the **six Gulf states** now find themselves facing a twin threat of domestic terrorist attacks from Shia and IS-backed extremists. Targeting key oil and gas infrastructure has been a core part of the IS' strategy. If the Suez Canal were made target of IS attacks, all LNG supply from Qatar to Europe would be halted.

Question 12: Do you think there are any sustainability issues specific to LNG that should be explored as part of this strategy? What would be the environmental costs and benefits of alternative solutions to LNG? Please provide evidence in support your views.

Generally, Europe needs to address both security concerns and decarbonisation commitments jointly. It is true that natural gas has an important role to play in Europe's low carbon transition: there is scope for coal-to-gas fuel switching to help reduce emissions in the near term, and to provide much needed flexibility to European power markets. In transport, it can help decarbonise the shipping and the freight industry currently heavily relying on oil. But while gas will play an important function, the volumes of gas consumed in the EU will continue to decline.

Over the longer term achieving the EU's climate objectives will mean limiting the unabated combustion of fossil fuels, including gas. According to the European Commission's Low Carbon



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Roadmap, the power sector will need to achieve 54-68% emission reductions by 2030, and to nearly reach carbon neutrality by 2050.

This raises questions about whether new gas import infrastructure built now can continue to be used throughout its economic lifetime, and how to manage Europe's transition away from gas. A European LNG strategy must include a strategy to manage the planned decline of European gas use:

First, the immediate and core focus of Europe's gas strategy should be to implement the 'energy efficiency first' principle to minimise gas use and gas infrastructure needs across Europe in the power & heating sector, in European industry, in buildings. It should also:

- > Set out a clear timeline for the **phase out of fossil fuel subsidies** including for gas
- > **Maximise the potential of options** available to transition away from gas in the electricity and heat sectors - through **RES, EE, electrification of heat and transport**, etc.
- > Develop **alternatives to gas as source of flexibility and main option for energy storage** – through development of thermal storage, electricity storage (batteries and e-mobility), etc. To ensure diversification of gas demand options as well as supply.
- > Drive use of **LNG in shipping and trucks**, support the development of **gas CCS** and include an **industrial strategy for gas-intensive sectors**.

About E3G

E3G is an independent, non-profit European organisation operating in the public interest to accelerate the global transition to sustainable development. E3G builds cross-sectoral coalitions to achieve carefully defined outcomes, chosen for their capacity to leverage change. E3G works closely with like-minded partners in government, politics, business, civil society, science, the media, public interest foundations and elsewhere.

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