

Contribution of the Ministry of Energy of the Republic of Lithuania for the public consultation on EIB's Energy Lending Policy

4.2. Renewable Energy

Do you agree that there is significant scope for investment in renewable heating and cooling?

We definitely agree that more attention should be paid to the widely untapped potential of renewables in the heating and cooling sectors.

4.5 Fossil Fuel

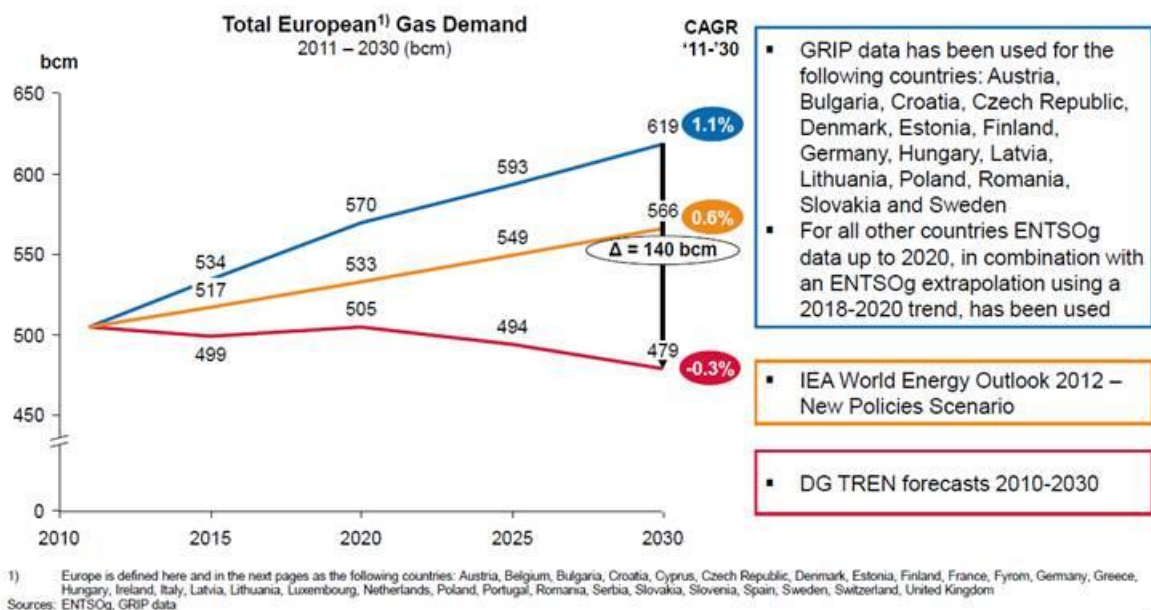
What is the scope for the development of shale gas resources in the EU?

In EU there are very few oil/gas companies which would have sufficient technical and financial capacities to engage into shale gas and shale oil prospecting, the more – into production. Thus, EIB might consider to apply innovative financial engineering instruments to support the capacity building of the state-owned oil and gas companies in the EU Member States. The scope for the development is still uncertain until sufficient extent of shale gas prospecting is not done. What is clear – is that full scale prospecting of unconventional gas in Europe needs to take place. It is necessary for the insurance of the competitiveness of EU industry, as well as of diversified and secure gas supply in EU.

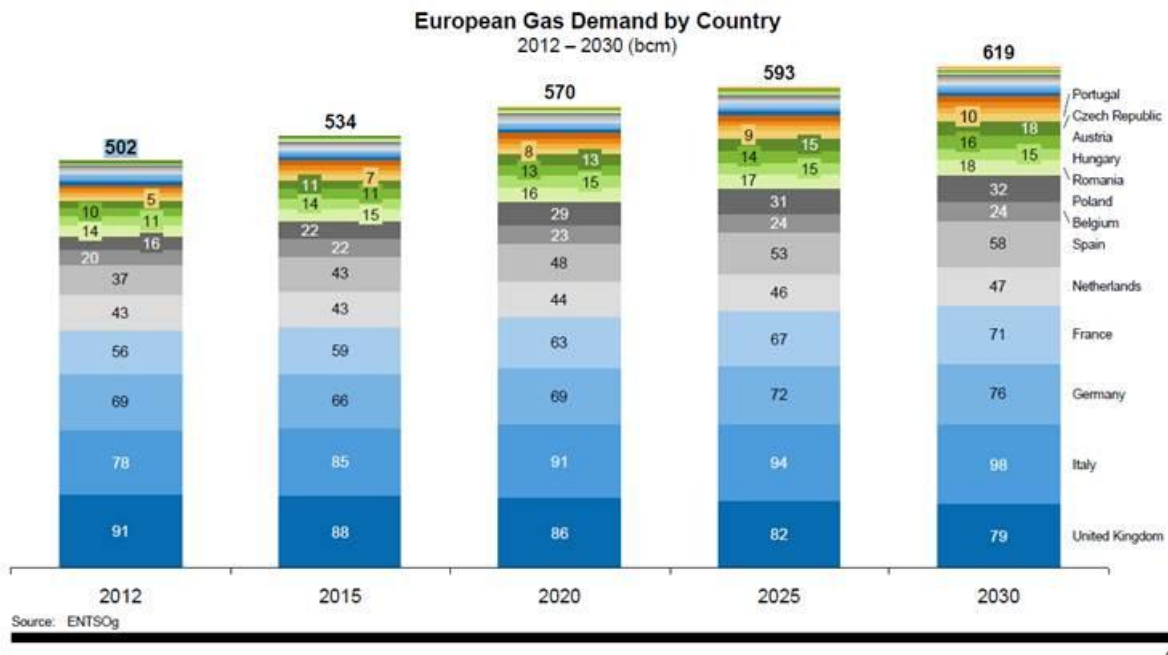
Do you expect the share of natural gas in EU primary energy consumption to grow further?

Share of the natural gas in EU primary energy consumption will continue to grow further. It is our opinion that ENTSO-G holds the competency to provide the most accurate gas demand in Europe forecast. The gas consumption in EU is expected to grow from 500 bcm/a to 620 bcm/a in 2030.

The demand scenario considered, is a market growing by 1.1% p.a.



The selected demand scenario results in a total expected European gas demand of about 620 bcm in 2030



What would be the best approach to increase security of gas supply and reduce import dependency?

1. Investments in the LNG import terminals to increase regasification capacities in the EU;
2. Investments in the gas storage facilities to increase gas storage capacities in the EU;
3. Creation of the attractive legal and fiscal environment for the potential investors to unconventional gas prospecting in Europe.

Given the large uncertainty on future gas demand, what is the risk that investment in natural gas infrastructure may be stranded?

Having in mind the forecasts of the most gas sector related international organizations, associations etc. as well as developments in our national energy sector, we cannot call it „large uncertainty“. Majority of the forecasts and factual trends indicates that gas demand until 2030 will continue to grow. Therefore, risks for the long-term (10-20 years) investments in the gas infrastructure, to our opinion, is considerably low.

4.6 Nuclear

What role do you expect nuclear power to play in the European energy market?

The nuclear energy has the undoubted benefits that help different countries/regions around the globe to cope with CO₂ emissions, guarantee their security of supply and diversify domestic energy mix. The important role of nuclear energy in EU is demonstrated by the fact that one of its founding treaties exclusively deals with nuclear energy (Euratom Treaty). Current use of nuclear electricity by EU Member States point to the high rate of use of nuclear power. Nuclear electricity counts for about 30% of total electricity generation (two thirds of low-carbon electricity) in EU, while the global average is 14%.

Although after the Fukushima accident some of EU members like Germany, Switzerland and Italy declared about the phase out of nuclear power, others like Bulgaria, Czech Republic, Finland, France, Great Britain,

Lithuania and Romania are developing or seriously consider the development of new nuclear power plant projects.

The Fukushima accident resulted in unprecedented efforts to review the safety of nuclear installations in Europe and worldwide. Initiatives were taken at national, regional and international level in order to further enhance nuclear safety and security mechanisms which would allow to avoid resembling events.

Each European nation has its own unique geographical and geopolitical location on the joint EU map, which influences the set of energy policy tasks each country needs to solve.

Hence European Commission in its Communication “Energy Roadmap 2050” has stated that nuclear energy contributes to lower system costs and electricity prices and as a large scale low-carbon option, nuclear energy will remain in the EU power generation mix.

Miscellaneous

Nuclear energy in Lithuania and the Background of Visaginas NPP project

For the historical reasons Lithuania is highly dependent on single external energy supplier. Moreover, Lithuania fulfills its Accession to EU Treaty commitment closed the state-owned Ignalina NPP on 31 December 2009. Since then Lithuania’s electricity balance has changed significantly – Lithuania changed from a net exporter of electricity to a net importer. As a consequence of all these factors currently up to 80 % of Lithuanian primary energy mix is provided by a single external supplier. Lithuania is the biggest electricity importer out of all EU countries (up to 65 %) while gas used for local electricity generation is also supplied from a single external supplier. Closure of Ignalina NPP at the end of 2009 has contributed heavily to growing imbalance between electricity supply and demand not only in Lithuania itself, but also in the entire Baltic region. In the context of scarcity of local energy resources and relatively low potential of competitive renewable energy generation, nuclear energy remains one of the most attractive alternatives of competitive energy generation in Lithuania and the Baltic region.

Seeking to decrease dependence of Baltic region on energy resources import from one dominant supplier, to ensure security of electricity supply and to reduce the CO₂ emissions, three Baltic States cooperate in developing a new regional nuclear power plant project (“Visaginas NPP project”) which is planned to operate in the joint Nordic/Baltic electricity market.

It is multilaterally agreed in the Baltic Energy Market Interconnection Plan (“the BEMIP”) that Visaginas NPP project is of strategic importance to the whole region.

In this regard Visaginas NPP project structure is based on a strong regional cooperation between the Baltic region countries (Lithuania, Estonia and Latvia) supported by the participation of Strategic Investor and technology provider – Japanese corporation Hitachi Ltd. together with Hitachi-GE Nuclear Energy Ltd.

Presently project is in advanced development stage with significant development and pre-development works already completed, including Environmental Impact Assessment and a full scale site evaluation both in accordance with International Atomic Energy Agency requirements.

Moreover on 8 June 2012, the European Commission issued a positive opinion on the Visaginas NPP project in Lithuania. The European Commission announced that the Visaginas NPP project contributes to a sustainable energy mix on national as well as regional level. Furthermore, the project enhances the security of energy supply in the Baltic region. It plays an important role in the full integration of the Baltic States into the internal European energy market and contributes to achieving the EU climate goals. It is the first European Commission favorable opinion for the Hitachi-GE’s ABWR technology in Europe and also the first approval post Fukushima accident.

According to the project timescale Visaginas NPP commissioning date is planned in year 2020/2022.

Funding of new nuclear projects and potential role of EU financial institutions

Nuclear power plant construction projects have many characteristics in common with other types of large infrastructure investment, both within the power generation sector and elsewhere. However, nuclear project developments have common obstacles arising from the complexity and nature of such projects:

- large size of the nuclear projects - requiring a large and strong corporate balance-sheet, thereby limiting the universe of potential investors;
- high upfront capital investment requirements with very long life of asset meaning return on investment is decades later and hence private capital (e.g. public shareholders that invest in traded shares) do not have an appetite for nuclear development investment even if they like holding the operating assets;
- capital cost uncertainty given the technology and regulation risk again limiting potential investors;
- complex project management and stakeholder interactions, meaning few available investors with the required experience;
- long term market price risk, exacerbated by the restriction on long term power purchase arrangements, making entry into new price markets less attractive for non-incumbent utilities;
- lack of any financial institutions willing to invest on a nonrecourse basis during the construction period of projects with such risk profiles, meaning high cost of capital;
- size of other project risks.

Given the complexity of the new nuclear generation builds, regional importance and impact on security of supply of the new nuclear power plant project EIB could play a very important role in overall success of the new nuclear builds in Europe and help energetically isolated regions within the EU, such as Baltic States, to reduce their dependence on energy imports and meet environmental goals while retaining competitive and economically attractive energy prices for consumers.

Properly constructed financing structure and financing arrangements can significantly enhance the project economics and investment returns for all project stakeholders.