



Baltic Sea Region: New Energy Dialogue – New Opportunities

By Jesper With, climate- and energy journalist¹

A new, strong energy dialogue in the Baltic Sea Region seems to be on its way. Recent geopolitical events in the region have revitalised the interest among the Nordic Countries and the Baltic States for more energy cooperation, more interconnection and deeper integration leading to a more secure, sustainable and competitive energy supply. This goes hand in hand with the European Union's increased focus on the Baltic Sea Region and the EU 2030 goals for renewable energy, energy efficiency and carbon reductions. The region has a huge potential in combining efforts on energy efficiency and diversification, moving towards a shift in mind-set where the value of energy saved represents an energy source in its own right.

A regional Nordic and EU energy security policy in combination with a revitalised interest in Estonia, Latvia and Lithuania for Baltic Sea cooperation can lead to Nordic/Baltic and EU action plans, and provide instruments that will lead to more investments and projects.

“There is an obvious need for a closer energy cooperation in the Baltic Sea Region. BASREC (the Baltic Sea Region Energy Co-operation), where also Russia is a member, has not been very successful in its efforts to promote larger scale Baltic Sea energy co-operation. One of the reasons is the lack of financial instruments in BASREC. The new EU Energy Union² should take into account the need for closer Baltic integration with other EU-countries, the need for enhanced security of supply and the need to assist in handling other energy policy problems that the Baltic States are fighting against”, says Hans Jørgen Koch, Executive director in Nordic Energy Research, Nordic Council of Ministers.

Financing - or at least the supply of seed money - is an important part of the picture. BEMIP (The European Commission's Baltic Energy Market Interconnection Plan) has already played an important role in assisting the Baltic States to improve their energy markets and their energy interconnections to other EU-countries. Therefore, according to Hans Jørgen Koch, enhanced security of supply must be high on the agenda in renewed efforts in the framework of BEMIP.

Among other efforts, he expects the EU to encourage more energy efficiency projects in the Baltic States. There is also a big potential for developing wind and bioenergy in the three Baltic States, which will be aligned with the EU goals and will lead to more energy independence. Much experience can be gained from the Nordic states, which are frontrunners in these sectors.

Green Business: The Regional Potential

The Baltic Sea Region has all the renewable energy sources and energy technologies needed to become a low emission region with sustainable growth. At the same time, green energy projects will support increased energy independence and a higher level of energy security. This in turn will strengthen the energy market

¹ The article is prepared for Baltic Development Forum, www.bdforum.org

² Link to the EU's Energy Union: http://ec.europa.eu/priorities/energy-union/index_en.htm

and lead to an increased market for companies within energy technology, energy efficiency, renewable energy, and low-carbon initiatives.

These are areas in which the Nordic Countries already have a lot to offer. Companies can implement investments in interconnectors, energy cooperation, and projects on renewable energy sources, heat and power around the Baltic Sea.

“I have got big expectations for the realisation of the Energy Union and in connection to this I hope the Baltic Sea Region will grow as a green energy market. Danish energy technological companies have a lot to offer within fields like wind, solar, waste incineration and CHP in connection with district heating and cooling,” says Troels Ranis, Deputy Director at the Confederation of Danish Industry. He adds that a growing amount of renewables in the energy mix should go hand in hand with energy efficiency, since the latter is an important method of achieving energy independence.

In Sweden 34 per cent of the energy supply comes from bioenergy and the country has a lot of competences within heat and power bioenergy technology and biofuel technology for transport to help transforming energy systems in a sustainable direction. “How far we will come in the Nordic and Baltic countries is mainly a political question, since we have the wind and bioenergy and the prices of technology go down every year,” says Kjell Andersson, who is Chief Political Adviser at the Swedish Bioenergy Association, Svebio.

He points out that the Baltic States have an abundance of unutilised biofuels, which could be used in a sustainable way. The transitioning of CHP plants from imported fossil fuels to local biofuels in connection with district heating systems that already exist in many towns would quickly lead to a greener energy mix in the Baltics while also securing energy independence.

Baltic States: (Green) Investments Needed

Seen from the three Baltic States' point of view, the recent geopolitical events have underlined the need to move away from the “energy island” position and improve connections to the European energy networks and markets.

According to the American-Lithuanian energy specialist Agnia Grigas, a rising concern about Russian intentions has put more emphasis on European and Baltic/Nordic energy security. Diversification will have to take advantage of new energy technologies such as LNG and clean and green technologies to meet the region's energy needs in the long term. This offers an abundance of new opportunities for business in the region - from investment projects to incentives for innovation.

“The key to greater energy security is to diversify energy sources and routes. This means greater access to non-Russian gas, oil and electricity for domestic consumption,” Agnia Grigas says.

Oil and gas terminals and domestic electricity production are possible solutions in terms of diversifying routes in order to not only access energy via routes controlled by Russia. For instance, Latvia's Ventspils Nafta and Lithuania's Mazeikiu Nafta have been facing Russian embargoes on oil supply via a Russian pipeline. Diversification of energy supply routes also means building interconnections with the energy system of the EU states and particularly the states of the Baltic Sea Region – electricity interconnectors and gas pipelines with Denmark, Finland, and Sweden.

“Concerning natural gas, the Baltics have been more vulnerable than most other EU states not only because of their import dependence on a single source until the Klaipeda LNG terminal, but also due to their gas transport and delivery infrastructure,” Agnia Grigas says.

The Baltic gas infrastructure was built in the Soviet era and depends on Gazprom-owned pipelines that deliver Russian gas. Only Finland and Bulgaria have comparable conditions. The Baltic States are still not connected to the gas pipelines of other EU states. A positive development is, however, that Lithuania opened its new LNG terminal in Klaipėda in December 2014 and is now able to receive gas from other sources than Russia. This will later help diversification in Latvia as well. Russian interests have dominated the Baltic gas sector since Gazprom became an investor in the national gas companies of all three states: Estonia's Eesti Gaas (37 per cent), Latvia's Latvijas Gāze (34 per cent), and until 2014 in Lithuania's Lietuvos Dujos (37 per cent).

To implement large-scale energy diversification projects the Baltic States will need more investors, technical support, and possibly financial support as well as institutional support from Nordic governments and institutions, Agnia Grigas points out.

Over the past decade there has been too much competition among the three Baltic States over energy diversification projects. Each state has wished for infrastructure projects to be located on its own territory and to gain access EU funding.

"Greater dialogue is needed to demonstrate that for the security of the region it is important to implement these projects sooner even if they don't end up in one's own territory," Agnia Grigas says. "A long-term energy strategy is needed for the Baltic Sea Region - particularly one that takes into account new clean sources of energy, not just a short-to-medium term strategy of diversification from Russia."

Ultimately the region's energy sector should reflect the long-term goals of the EU of united energy markets, reduced monopolies, energy security, and greener and cleaner energy.

"To reach the regional energy targets, the fulfilment of EU's Energy Union plans, to ensure energy security, revitalize the economy and create green jobs, we need diversification of energy sources and routes, innovation in the energy sector, greater cooperation and an improved dialogue both between the Baltic States and the Nordic States and the EU," Agnia Grigas says.

She believes that the challenging turnaround of the Baltic region's energy sectors can be a success story for the entire EU. The region is geographically and historically close to Russia and thus is on the front line in terms of Europe's energy security.

Recent Accomplishments in the Baltic States

Diversification of energy sources and security, increased competitiveness within energy, and a focus on renewable sources are all priorities in line with the interests of the three Baltic countries. According to Agnia Grigas, the Baltic States have been drivers of EU's energy policy as well as passive recipients at times. Lithuania and to some extent Estonia have been less compromising towards Russia and more willing to take the lead in liberalisation and security of supply policies, while Latvia has preferred a slower and more cautious approach. In terms of sustainability and renewables, however, Latvia has set the most ambitious targets.

Improving Baltic energy security has been high on the agenda over the past ten years ever since the Baltic States gained NATO and EU membership, which solved their most acute security concern.

"But in the way of energy little had been accomplished in the 2000s and 2010s. This is primarily due to the high financial costs of such diversification projects, lack of resources and investors, lack of institutional capacity to implement them, and the efforts of Russian energy interests to block diversification efforts", Agnia Grigas says.

Recent positive results include Estonia's electricity links to Finland, an electricity interconnector between Sweden and Lithuania, Lithuania's LNG terminal that opened in 2014, Lithuania's Butinge oil terminal in the 1990s.

BEMIP has had a positive influence in these developments, having supported the construction of NordBalt, the electricity interconnector between Sweden and Lithuania, as well as strengthening the electricity grid between the Baltic States themselves. More projects of electricity and gas interconnections are in the pipeline.

Latvia: Strong in Renewables - Vulnerable in Gas

Mainly due to hydro power plants Latvia's share of energy from renewable sources is as high as 35,8 per cent (2012), which means that the country's 2020 target of 40 per cent already seems to have been reached. The share of electricity from renewables is 44,9% (2012), so compared to EU-28 average Latvia is doing well. The country's biggest energy challenges lie in the field of gas supply and in the energy island situation, according to Toms Rostoks, researcher at the Centre for Security and Strategic Research. The constructions of the electricity interconnector from Sweden to Lithuania, the LNG terminal in Lithuania and the electricity connections Estlink 1 and 2 between Finland and Estonia are, however, improvements also for Latvia. Although Latvia is not directly involved it still benefits from these investments.

In Latvia, the main challenge is to achieve more energy security in natural gas. Latvia's gas pipelines are connected to Russia. "We are vulnerable because we have only got one supplier. There is no competition, and there are concerns that this may result in higher energy prices," Rostoks says.

The liberalization of the gas market has been postponed until 2017 – which means that Latvia is the slowest of the three Baltic States. "We are approaching energy security issues in the way that we look more on prices. Without competition we may end up paying more than the Lithuanians, after they have built an LNG terminal, but at least there is the perception that the gas will be available because of the Inčukalns facility, Toms Rostoks says.

The European Commission's (EC) Energy Security Stress Test, published on 16 October 2014, revealed that once the Klaipėda LNG terminal entered into operation, supply would be ensured in all the three Baltic States – including in a hypothetical scenario of long-term Russian gas supply disruption. The EC estimates that together with Inčukalns Underground Gas Storage Facility, Klaipėda LNG terminal is one of two key infrastructures for the Baltic States to rely on in case of severe disruption of Russian natural gas supplies.

Toms Rostoks is in favour of a constant dialogue between the Nordic Countries and the Baltic States. He believes that Latvians need to be constantly reminded not to stay dependent on only one gas supplier. "We need a bit of nudging from our Nordic partners and EU, because at the political level they say we are all in favor of the Energy Union track, which means more independency from Russia, but in reality we have increased our dependency on Russian gas", Toms Rostoks says.

The Diverse Finnish Energy Mix

Finland is highly dependent on Russian gas. There is a regional wish to have a bigger regional LNG terminal connected to the gas grid in combination with "the Baltic Connector", i.e. a gas pipeline between Finland and Estonia.

"However, it would need significant subsidies from the EU. LNG terminals would increase the security of supply and also create a gas market. Though there has not been any gas interruption in Finland's 40 years of history," says Mikael Ohlström, who is Chief Policy Adviser at the Confederation of Finnish Industries.

When it comes to electricity Finland is not dependent on Russia. Still, Mikael Ohlström believes that the connections to other Nordic Countries always could be improved, and that a new power transmission cable between Northern Finland and Sweden/Norway should be built in near future.

“Otherwise the Nord Pool area is already quite well connected. But increasing own production capacity and self-sufficiency would help Finland”, Mikael Ohlström says.

Overall Finland has a diverse mix of energy production, including nuclear. The country has got one of the most energy-intensive export industries in the EU, so reliable availability as well as a competitive price of energy are very important for companies and for the whole Finnish economy.

“That’s why a nuclear power plant is being built, which can provide stable and predictable electricity price for decades to come, and also carbon free,” Mikael Ohlström says.

36.8 per cent of final energy consumption, up from 28.5% in 2005, is coming from renewable sources, mainly from wood-based bioenergy and hydropower. This positions them 3rd in Europe. Wind power is growing fast because of a feed-in-tariff and the target of 6 TWh/year will be achieved already 1-2 years before 2020. The government has also formulated a policy to further increase the wind power to 9 TWh/year by 2025. With the Center Party in government after the recent elections, bioeconomy and bioenergy will likely be prioritised. Their target is to reach 60 per cent of energy from renewables by 2030.

“Especially in bioenergy boilers, Finnish companies have big market shares, and cleantech export regarding the whole supply chain from wood harvesting to power plants has a huge potential to grow further,” Mikael Ohlström says.

With Teollisuuden Voima Oyj’s (TVO) Olkiluoto 3 reactor finalized in 2018 and Fennovoima’s first reactor under construction (est. 2024) the share of nuclear energy will also increase. Plans for a Olkiluoto unit 4 will most probably not be taken further until after Olkiluoto 3 is in operation. The old nuclear plants Loviisa 1 and 2 will be closed by 2030, so there might still be at least one more decision-in-principle for the energy company Fortum during the next government period (2015-2019).

“Our member association, Finnish Energy Industries, has a target to have carbon-neutral energy production in Finland by 2050. Peat and natural gas will most probably still remain to some extent, so there would also be a need for CCS (Carbon Capture & Storage), otherwise it’s only renewables and nuclear. In addition, carbon-free energy will also decrease greenhouse gas emissions outside emission trading sectors such as from buildings and transportation,” Mikael Ohlström explains.

An Attractive Baltic Sea Region Market

“If the Baltic Sea energy market wakes up, this will be a very attractive market. The market within the Baltic States is not so big in itself, but put together the Nordic Countries constitute the 10th largest economy in the world and together with Poland and Germany this is a huge market,” Hans Jørgen Koch says.

The recent development in Russia underlines what the Baltic States have known for a long time: it is too risky to be too dependent on Russian energy supply. In Nordic science programmes financing is reserved for cooperation with the Baltic countries, but until recently it has been difficult to find suitable projects and interest.

“We do have a community of interests in the Nordic and Baltic countries, which should be used. As I experience it, the Baltic States realise, that if they become less dependent on gas and nuclear power, there

are lots of technological solutions in the Nordic Countries that can move them closer to sustainable growth and security of supply,” Hans Jørgen Koch says.

“In the Nordic Countries, there is in some sectors still a huge potential for reducing energy consumption and carbon emissions and strengthening a sustainable energy market. All Nordic countries have very strong companies in energy technology and cleantech which will benefit from this Baltic Sea Region energy market, to which you should count Poland as well, he points out and continues”...It is possible to improve energy security by using more renewables instead of coal, gas and nuclear power. We have all chances to do this in the Baltic Sea Region and in this way create a strong, energy independent region based primarily on sustainable energy sources”.