## Political Roadmap on the synchronisation of the Baltic States' electricity networks with the Continental European Network via Poland

Sides:

the European Commission
the Republic of Lithuania
the Republic of Estonia
the Republic of Latvia
the Republic of Poland

## HAVING REGARD TO:

The Conclusions of the meetings of the European Council of 23 and 24 October 2014 and of 19 and 20 March 2015, which express commitment to building the Energy Union, reiterate the need to achieve a fully functioning and connected internal energy market while ensuring the synchronous operation of Member States within the continental European networks, and highlight the essential role that such synchronous operation has in increasing the energy security of the Baltic States;

The Memorandum of Understanding on the reinforced Baltic Energy Market Interconnection Plan ('BEMIP') of 8 June 2015, which acknowledges the synchronisation of the Baltic States with the continental European networks as a self-standing objective that contributes to achieving a fully functioning and connected internal energy market and to increasing energy security in the electricity sector of the Baltic States;

The Joint Declaration by the Heads of State or Government of Estonia, Latvia, Lithuania, Poland and the President of the European Commission on Ending the Gas Isolation of the Baltic Sea Region of 15 October 2015, which reaffirms their commitment to further strengthening their strategic cooperation on the Union's energy policy objectives and to work together towards reinforcing the integration of the Baltic Sea region into the internal European Union energy market, including the objective to ensure the synchronisation of the electricity grids of the Baltic States;

The Joint Statement by the Energy Ministers of Estonia, Latvia, Lithuania, Poland, the Vice-President for Energy Union and the Commissioner for Climate Action and Energy of 18 December 2017, which expresses political commitment to find solution on the best way to

synchronise the Baltic States' electricity networks with the continental European networks and reiterates the importance of the technical studies in this process;

The Joint Statement of the Prime Ministers' Council of the Baltic Council of Ministers of 18 December 2017, which welcomes the launch of technical studies and emphasises the necessity to provide comprehensive information to ensure the making of an informed political decision by summer 2018 and moving forward with the most feasible, reliable and time- and cost-efficient synchronisation scenario;

The Joint Statement by the Heads of State or Government of Estonia, Latvia, Lithuania, Poland and the President of the European Commission of 22 March 2018, which reaffirms the strong commitment to synchronising the Baltic States' electricity grid with the continental European networks by 2025 while ensuring high level of security of supply and solidarity and includes the commitment to conclude by June 2018 a political agreement on the preferred way of synchronising the Baltic States with the continental European networks;

The Commission Delegated Regulation (EU) No 2018/540 of 23 November 2017 amending Regulation (EU) No 347/2013 of the European Parliament and of the Council on guidelines for trans-European energy infrastructure as regards the Union list of projects of common interest, which recognises the synchronisation of the Baltic States' electricity system with the European networks as one of these European strategic projects.

## RECOGNISING:

That, following the successful synchronisation between 1995 and 2004 of the electricity systems of Bulgaria, Czechia, Hungary, Poland, Romania and Slovakia with the continental European networks, Estonia, Latvia and Lithuania are the only Member States of the European Union whose electricity networks are still operated in a synchronous mode with the Russian and Belarussian systems;

That the synchronisation of the Baltic States with the continental European networks is a key political priority and important to ensure secure, affordable and sustainable energy for the eastern Baltic Sea region, in line with the Union's energy policy objectives, particularly ensuring the functioning of the EU internal electricity market;

That effective regional cooperation in the eastern Baltic Sea region at all levels, including Ministries, National Regulatory Authorities and Transmission System Operators (TSOs), is key to attaining the Union's energy policy goal of ensuring affordable, secure and sustainable energy to all Europeans, including the synchronisation of the Baltic States with the continental European networks;

The significant work made by the BEMIP Working Group established in 2015 to analyse 'various aspects of the integration of the electricity networks of the Baltic States into the continental European network, including their synchronous operation' ('dedicated BEMIP Working Group');

The highly valuable expertise, professionalism and substantial effort that the European Commission and the European Network of Transmission System Operators for electricity (ENTSO-E) have put into facilitating the project of synchronisation of the Baltic States with the continental European network;

That the technical studies, notably:

- 'Feasibility study on the interconnection variants for the integration of the Baltic States to the EU internal electricity market',
- 'Integration of the Baltic States into the EU electricity system; a technical and economic analysis',
- 'Study on dynamic behaviour of synchronously interconnected Baltic States and Continental European electricity network',
- 'Study assessing the frequency stability of synchronously interconnected Baltic States and Continental European electricity network', and
- 'Analysis under the Dynamic and Frequency Stability Studies to facilitate the implementation of the additional measures'

provide sufficient information to identify the best option and to progress to synchronise the Baltic States' electricity networks with the continental European networks via Poland.

## THE SIDES AGREE:

The synchronisation of the Baltic States with the continental European network must result in a high level of security of the Baltic States' electricity networks and must be carried out in a cost-efficient manner, taking into account both capital and operating expenditure. At the same time this process shall not negatively affect the operational security and economic efficiency of the Polish power system. The Baltic States should gain the full independence in operating their electricity networks by synchronising them in an economically and technically viable way with the continental European network aiming for by 2025 as the target date;

The solutions to be used for synchronisation must be based on the outcomes of the technical studies performed. Two technical studies ('Integration of the Baltic States into the EU electricity system; a technical and economic analysis' and 'Study assessing the frequency stability of synchronously interconnected Baltic States and Continental European electricity network') indicate that the best solution to achieve the above-mentioned goal is synchronising the Baltic States' electricity networks with the continental European network via Poland through two separate alternating current (AC) lines, which guarantees highest degree of security of supply and has no significant additional operating costs to the Baltic States;

At the same time, the capital expenditure of such an approach is estimated to be very high and moreover, the construction of the second AC connection between Poland and Lithuania would not be feasible in a reasonable timeframe. Therefore, an alternative synchronisation solution, that has comparable level of security of supply and lower related costs will be pursued;

The synchronisation of the Baltic States' electricity networks should be done through an option, which ensures the level of operational safety on par with the one applicable in continental European electricity networks and acceptable economic feasibility, once the relevant infrastructure and other measures have been implemented;

The synchronisation of the Baltic States with the continental European networks through the existing double circuit AC line between Lithuania and Poland known as "LitPol Link" without additional measures and infrastructure is not sufficiently cost-neutral nor sufficiently secure from an overall interconnected systems perspective.

Thus, the sides will continue to evaluate under the extended *Dynamic and Frequency Stability Studies to facilitate the implementation of the additional measures* the adequate level of operational safety and economic feasibility of other possible synchronisation options, consisting of the existing double-circuit AC line between Lithuania and Poland known as 'LitPol Link', complemented with an additional direct current submarine cable between Poland and Lithuania (new high-voltage direct current, 'HVDC'), as well as other optimization measures, like synchronous condensers, power system stabilisers, overloading capability and emergency power control functionalities of existing and new HVDC links, special protection schemes, and other technically and economically feasible solutions based on proven technologies. The analysis should assess and confirm by the end of August 2018 at the latest the technical and economic feasibility of these additional optimization measures as well as infrastructure and facilitate their implementation;

Should the results of the analysis show that the solution does not provide acceptable level of security of supply with reasonable costs, the sides agree to continue looking for alternative options guaranteeing desired level of security of supply and costs. In such a case, an alternative option will be the subject of a political endorsement;

Within one week from the green light of the BEMIP High Level Group expected by 14 September 2018, the Polish TSO will - in its capacity as a supporting party together with Baltic States' TSOs as requesting parties - submit an application to the Regional Group Continental Europe of ENTSO-E, thus launching the formal procedure for the extension of the continental European networks to the Baltic States to facilitate the technical cooperation between the transmission system operators;

The BEMIP High Level Group is mandated to closely monitor the procedure of extending the continental European networks to the Baltic States and the development of the necessary measures and investments;

The TSOs of Estonia, Latvia, Lithuania and Poland, in close coordination with ENTSO-E, are invited to regularly inform the BEMIP High Level Group about the progress achieved in the procedure of extending the continental European networks to the Baltic States and in the development of the necessary measures and investments, including any potential risks and challenges to the timely completion of the synchronisation project;

The TSOs of Estonia, Latvia, Lithuania and Poland may apply for the investments identified for financial support available at Union level, such as the Connecting Europe Facility, the European Structural and Investment Funds and the European Fund for Strategic Investment;

The Commission will provide full support at all levels to the process of synchronising the Baltic States' electricity networks with the continental European networks;

The continued security of the electricity system and the necessary system services possibilities for the Kaliningrad region will be guaranteed based on currently available network infrastructure complemented preferably with two HVDC back to back stations suitable for transit to the Kaliningrad region if such technical necessity will be proven. Estonia, Latvia and Lithuania hereby invite the Commission to launch the necessary procedures in order to open the discussion with the Russian and Belarusian sides so that the de-synchronisation process from the Russian, including Kaliningrad region, and Belarussian systems can be managed without additional risks for the security of their systems. The Commission is invited to inform the BEMIP High Level Group about the progress achieved in the de-synchronisation process;

This Political Roadmap records a political intent alone. It does not establish any new legal commitments and does not replace or modify any existing legal obligations with regard to the Sides or any third persons.

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Signed in Brussels on 28 June 2018.

For the European Commission

For the Republic of Lithuania

For the Republic of Estonia

For the Republic of Latvia

For the Republic of Poland