



Climate Challenges for Energy Supply

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European Commission
DG Energy



Implementing the EU Energy Roadmap 2050

- Energy efficiency, renewable energy, nuclear energy, carbon capture & storage for a more sustainable, competitive & secure energy system in 2050;
 - A **long-term 2050 greenhouse gas reductions target**: 80% to 95% reduction in greenhouse gases compared to 1990 levels;
 - Agreement on a **2030 Framework for climate and energy**, including EU-wide targets and policy objectives for 2020-2030;
 - **Targets for 2030:**
 - a 40% cut in greenhouse gas emissions compared to 1990 levels
 - at least a 27% share of renewable energy consumption
 - at least 27% energy savings compared with the business-as-usual scenario
- ➡ a stable policy framework on greenhouse gas emissions, renewables and energy efficiency
- ➡ more certainty for investors
- ➡ EU's leadership

Energy Union Strategy



1. Security, solidarity and trust

2. A competitive and completed internal market

3. Moderation of demand

4. Decarbonisation of the EU energy mix

5. Research and innovation

Clean Energy for All Europeans

- Measures to keep the EU competitive as clean energy transition changes global energy markets;
- Achieving global leadership in renewable energies
➡ growth sector of the future;
- Partnership with Member States to monitor progress towards 2030 targets;
- **Proposals on:**
 - Electricity Market Design;
 - Renewables;
 - Energy Efficiency;
 - Regulation on the Governance of the Energy Union ➡ Climate Monitoring Mechanism Regulation (MMR) & provisions of the Paris Climate Agreement

Clean Energy for All Europeans

‘Europe is on the brink of a clean energy revolution. And just as we did in Paris, we can only get this right if we work together. With these proposals, the Commission has cleared the way to a more competitive, modern and cleaner energy system.’.

Commissioner for Climate Action and Energy Miguel Arias Cañete

The Role of BEMIP in addressing energy sector climate challenges in the Baltic Sea Region

- A Memorandum of Understanding on the reinforced 'BEMIP' was signed in June 2015:
 - Re-defining and broadening the scope of the initiative;
 - Reinforcing the structure of the initiative, including dedicated working groups;
 - A new BEMIP Action Plan identifying specific measures, action points and projects to be implemented (mostly) by 2020.
- **BEMIP now includes:** the internal energy market, interconnections and power generation (comprising nuclear energy) and other areas, such as security of supply, energy efficiency and renewables



Challenges, opportunities and solutions

Baltic Energy Market Interconnection Plan

- Electricity Infrastructure
 - Removing bottlenecks and further integrating the Baltic States' markets among themselves
 - Enhancing the integration of the Baltic States' into the rest of the EU
 - Integrating renewable energy



Challenges, opportunities and solutions Baltic Energy Market Interconnection Plan

- Successes in the integration of the Baltic Power System



Challenges, opportunities and solutions Baltic Energy Market Interconnection Plan

- Synchronisation of the Baltic States electricity network with the European Networks
 - "Various aspects of the integration of the Baltic States' electricity network into the continental European network, including their synchronous operation" as a self-standing objective under BEMIP
 - JRC Study on "Integration of the Baltic States into the EU electricity system: a technical and economic analysis"
 - ➡ the scenario in which the Baltic States' electricity grid is synchronised with the Continental European Network (CEN) via Poland as technically-feasible and the most cost-efficient solution
 - ➡ political endorsement of the commitment of the BEMIP Member States to move forward with a preferred solution without undue delay

Challenges, opportunities and solutions Baltic Energy Market Interconnection Plan



- **Markets**

- Creating a framework that allows the necessary investments in power generation
- Strengthening the internal energy market in a way that the market will provide the right price signals for investments
- Enhancing the flexibility of the power markets
- Implementing the rest of the European market rules, network codes and market coupling (including capacity calculation, day-ahead and intraday markets)
- Nordic/Baltic integrated balancing market

➡ an Action Plan for a truly competitive regional electricity market

Challenges, opportunities and solutions Baltic Energy Market Interconnection Plan

- Renewable Energy

- A common vision and regional RES pledge for 2030, taking into account the considerable natural RES potential in the BEMIP region
- A step-wise cooperation and alignment of certain elements of the RES support schemes by 2020
- Enhancing the market design to make a market fit for RES integration, which could act as an effective foundation of the 2030 framework.
- Develop the perspectives and design options for possible joint renewable energy projects and cross-border cooperation in the BEMIP region, including on off-shore wind power

➡ building a BEMIP Action Plan for offshore wind



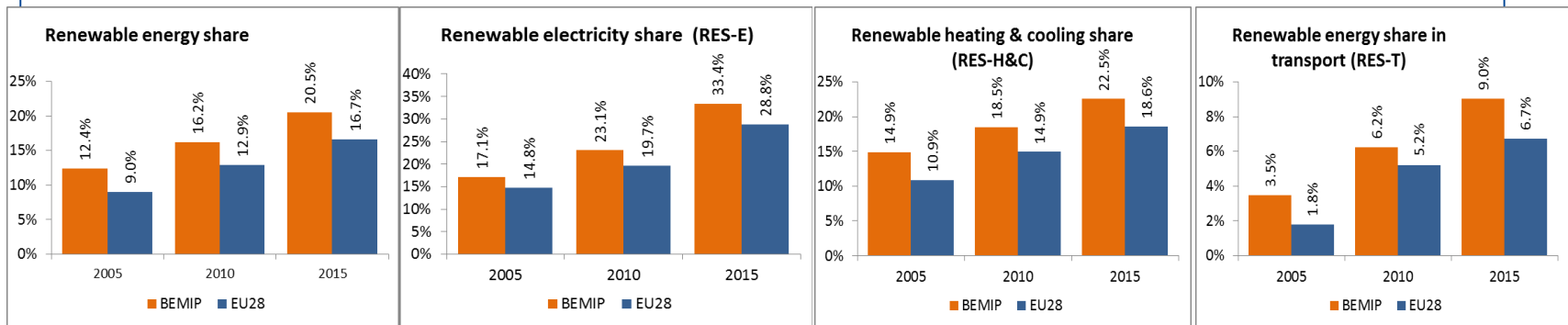
Challenges, opportunities and solutions

Baltic Energy Market Interconnection Plan

- Renewable Energy

- The renewable energy share in the BEMIP region was 20.5% in 2015, higher than at the EU28 level (16.7% in 2015);
- In 2015, all renewable shares in electricity generation, heating & cooling and transport were higher in BEMIP region than at EU28 level:
 - RES-E: 33.4% in BEMIP and 28.8% at EU28 level
 - RES-H&C: 22.5% in BEMIP and 18.6% at EU28 level
 - RES-T: 9% in BEMIP and 6.7% at EU28 level

Renewable energy shares 2005-2015 (source: ESTAT-SHARES)



- Projected evolution of the RES-E share is very much in line with the one of the EU as a whole

Challenges, opportunities and solutions Baltic Energy Market Interconnection Plan



- **Energy Efficiency**

- Common/similar factors that influence energy efficiency policies & needs in the Baltics:

- Climate conditions

- District heating tradition

- Ex-Soviet housing stock

- Energy efficiency-targeted financing structures (important role of European Structural and Investment Funds, progressive shift towards Financial Instruments, already available experience (e.g. VIPA in Lithuania, EBRD in Latvia, KREDEX in Estonia, KfW in Germany, Kommunekredit in Denmark etc.)

- Scope for more useful and targeted exchange of knowledge in particular as regards the Financial Instruments and the use of public/private funds

➡ peer learning exercise



Thank you for your attention!

