Status-quo of Hydrogen Utilisation in NG COM Member Countries

Roundtable input by Lithuania

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ERRA Natural Gas Markets and Economic Regulation Committee
January 25, 2025 / 18th Meeting (Online)

Policy Level

GUIDELINES FOR HYDROGEN DEVELOPMENT IN LITHUANIA 2024-2050 (draft)

The aim - to create a green hydrogen ecosystem in Lithuania by setting out the main directions for green hydrogen development up to 2050 and the objectives up to 2030, which would meet Lithuania's energy independence ambition and greenhouse gas reduction commitments, and would foster Lithuania's climate-neutral economic development.

Targets to achieve

NATIONAL ENERGY REGULATORY COUNCIL

Till 2030

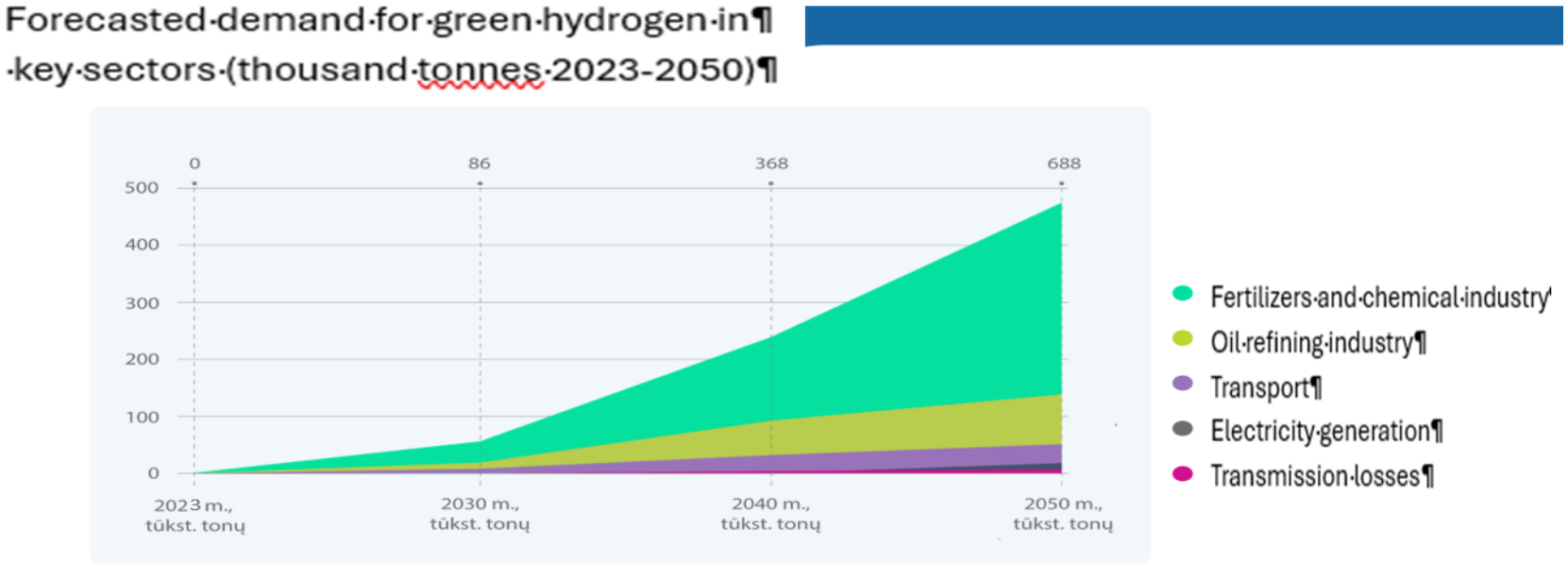
- Initial projects in the industrial and transport sectors to reduce greenhouse gas emissions and the consumption of imported fossil fuels;
- Pilot projects or studies to identify and assess the potential development of new activities and the expansion of existing ones.

Till 2050

- By 2050, Lithuania aims to produce enough green hydrogen to meet its own needs and export surplus energy products to other countries. Lithuania's development plan envisages hydrogen infrastructure to be well-connected to neighboring countries, providing opportunities for both hydrogen export and import, as well as utilizing hydrogen storage infrastructure in other countries.

Hydrogen demand

- It is estimated that the demand for green hydrogen in Lithuania could reach 86000 tonnes per year in 2030. An additional 43 000 tonnes could be available for export.
- In 2050 demand is expected to increase to 688000 tonnes and exports would amount to around 44 000 tonnes per year.



Developing hydrogen transport and storage infrastructure I

The adaptation of the natural gas infrastructure to hydrogen transport:

- feasibility study on the development of a European hydrogen corridor (transit network) together with transmission system operators in neighboring countries;

- by 2027, a pilot project on hydrogen blending in the natural gas network - to assess the technical parameters and economic feasibility of adapting the natural gas infrastructure for hydrogen transport.

Developing hydrogen transport and storage infrastructure II

- **Nordic-Baltic Hydrogen Corridor** project of a hydrogen pipeline from Finland to Germany.

- In November 2023, the Nordic-Baltic Hydrogen Corridor was granted the status of the project of common interest (PCI) by the European Commission.

Developing hydrogen transport and storage infrastructure III

Hydrogen blending in the natural gas network is envisaged as a transitional measure to stimulate the emergence of a green hydrogen market and to develop the first hydrogen transport capacities.

Hydrogen blending in the natural gas network is planned to be limited, with the amount of hydrogen blended with methane gas not expected to exceed 10%

Developing hydrogen transport and storage infrastructure IV

- The technical solutions for integrating the Klaipėda LNG terminal infrastructure into the hydrogen value chain;

- To assess the feasibility and benefits of hydrogen storage.

Responsible institutions

For implementation of the Guideline:

- Ministry of Energy;
- Ministry of Economy and Innovation;
- Ministry of Transport and Communications of the Republic of Lithuania to implement the Guideline

Participate in the implementation of the Guidelines:

- National Energy Regulatory Council, the Lithuanian Geological Survey, the Klaipėda State Seaport Authority, state-owned energy companies, research and study institutions

Next step:

An action plan for the implementation of the Guidelines by 28 June 2024

THANK YOU FOR YOUR ATTENTION!

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