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Biomethane in Lithuania.

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Current status



Biogas

- There are 41 biogas plants operating in Lithuania with a heat capacity of 9.5 MW and electricity capacity of 33.4MW.
- Biogas is produced from agricultural wastes, from sewage, from landfill gas, biowaste and industrial waste.

Biomethane

- Currently there is no biomethane production in Lithuania.
- It is planned that first biomethane plant will be connected to Lithuanian gas transmission system in 2023.
- Amber Grid has received 14 enquiries for the conditions of connection to transmission system (13 biomethane producers and 1 hydrogen producer).



Biomethane production potential and demand

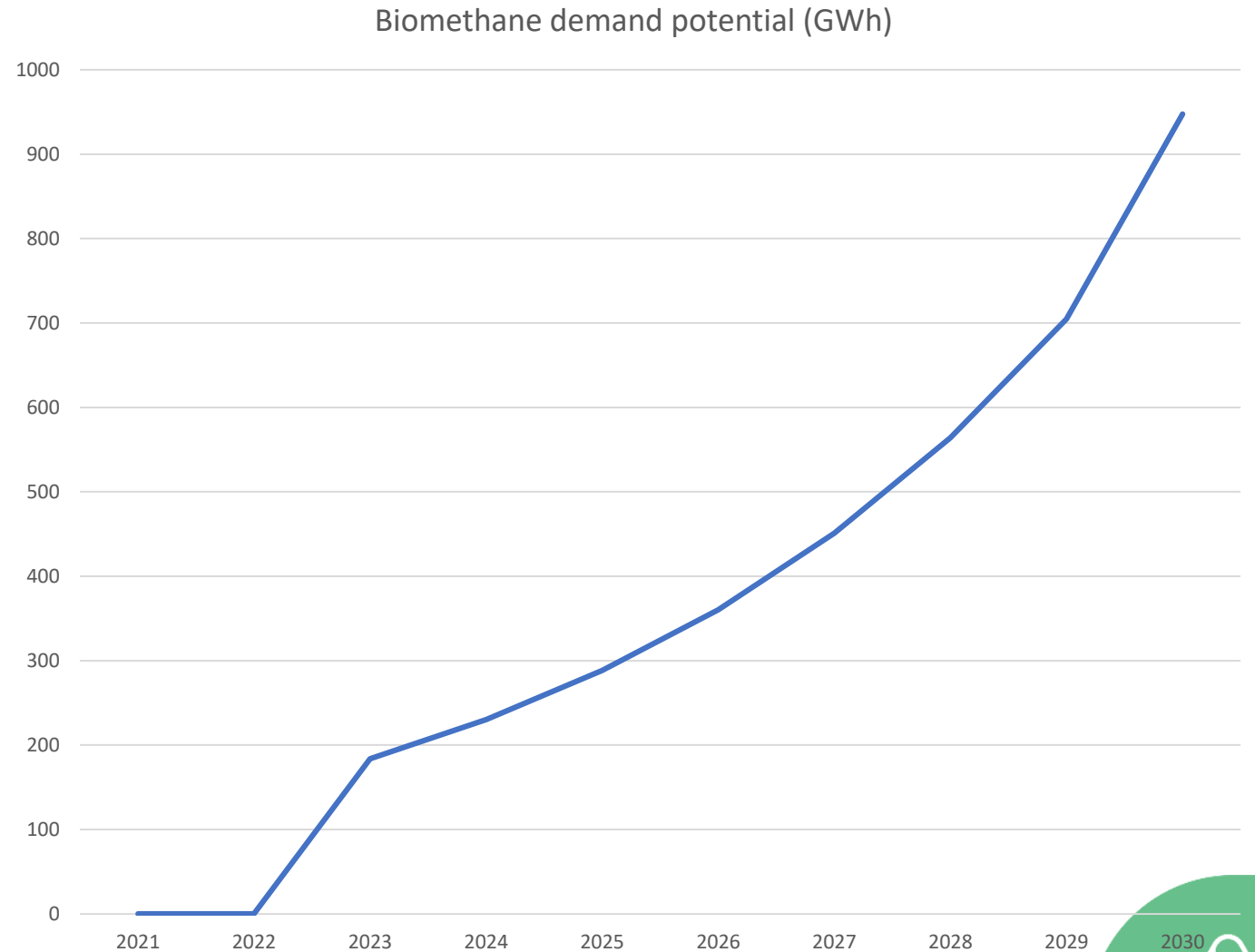
Production potential:

- Several studies about potential of biomethane production in Lithuania has been conducted in the last 5 years.
- Biomethane production potential from manure varies from 0,4 TWh to 1,04 TWh.
- Total biomethane production potential is seen somewhere between 2,2 – 2,6 TWh.



Biomethane demand potential

- Climate change plan sets the goal for 2030 to reach 5,2 percent of biomethane and hydrogen in final fuel mix for transport.
- Ministry of Energy sets a 950 GWh target for biomethane consumption in transport sector.
- Biomethane potential foreseen in other sectors in the future.



Biomethane market drivers

Investment support for biomethane production facilities:

2021 from National Climate Change program - 15 million EUR for new 8 biomethane production plants or biogas upgrading facilities.

2022 – 2026 from Recovery and Resilience Facility (RRF) - 22 million EUR.

.Alternative Fuel Law

Obligations

Obligations to natural gas suppliers must ensure that biogas or non-biogas gas fuels from renewable energy sources sold shall account **at least 4.2 percentage points** in the total energy value of natural gas in 2025.

This value shall be increased steadily each year until **2030** when it will reach at least **16.8 percentage points**

Tool for achieving obligations

Renewable fuel statistics unit system.



Renewable fuel statistics unit system

- Administrator is Baltpool (International Biomass exchange).
- The system is operating from December 2021.
- One renewable fuel statistics unit (hereinafter unit) is assigned to renewable fuel suppliers for each renewable fuel megajoule (MJ) delivered to the domestic market during a calendar year.

Units issue for gas suppliers.

GO registry administrator (Amber Grid)

- Checks and approves GO cancelation in the specific consumption point and confirms that mass balancing principle was ensured.
- Submits required data to Unit system administrator

GO data;
Proof of
sustainability data;
Lower and upper
heating value.



Unit system administrator

- Receives data from GO registry administrator and converts MWh into MJ.
- Assigns units to fuel supplier



Renewable fuel statistics unit system

Fuel supplier can:

- Use assigned units to cover his obligations or
- Sell these units to other fuel suppliers.

Units received from supplying renewable gases can be used to cover liquid fuel obligations.

Therefore, renewable gases can be used earlier than 2025 in transport sector to cover liquid fuel obligations.



GO Registry

- Registry of renewable gases Guarantees of Origin (GOs) has been established on 1st of June 2019. Amber Grid is national designated body for the administration of the registry.
- Registry is designed based on MS Access program as a database with an interface for data entry. All actions are done manually by administrator.

With the rising potential of renewable gases it was decided to **upgrade the registry**.

- **Tender for new registry shall be announced in upcoming weeks.** Goal is to adapt already existing IT solution for national needs.

Benefits:

- Transparency for market participants, self service functions etc.;
- Will help on integration with registries on regional and EU level;
- Also, more efficient integration with renewable fuel statistics unit system.



Further actions to promote renewable gas sector

Further actions:

- Integration national GO system into European;
- Gas quality requirements liberalization at interconnection points;
- Facilitating the process of biomethane production plants connection to the transmission network.

Future goals for consideration:

- Legal and technical conditions for issuing hydrogen GOs;
- LNG integration into GOs system;
- Off grid biomethane producers integration into GOs system



Thank you

 Amber Grid

