PUBLIC UTILITIES COMMISSION OF LATVIA

Introductory Presentation to Report: Feasibility and Potential Benefits of Repurposing Existing Gas Infrastructure; Hydrogen and Biomethane Blending

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Reports in two year work plan

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- *Hydrogen – market design, feasibility of establishing markets and the supply chain, and the Future Role of Regulators in Hydrogen Markets*
- ***Feasibility and potential benefits of repurposing existing gas infrastructure; Hydrogen and Biomethane blending***
- *Regional benchmark for best practices in gas retail market regulation.*
- *Gas DSO Benchmark*
- *Incentive regulation (x - factor, output regulation)*
- *Regional benchmark for best practices in gas retail market regulation.*
- *Investment plan evaluation / Effective investment incentives for gas*

Topic actuality 1/3

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Potential benefits of repurposing existing gas infrastructure - Hydrogen and Biomethane blending:

- ✓ ***Cost effective transition:***
  Reusing existing gas pipelines, storage facilities, and distribution networks can significantly reduce the upfront costs associated with building new infrastructure

- ✓ ***Faster deployment of exsisting infrastructure:***
  Important because utilizing the existing infrastructure, the deployment of hydrogen and biomethane can be significantly faster compared to constructing new infrastructure from scratch

Repurposing existing gas infrastructuree will help accelerate the transition to a low-carbon economy without huge investments in the new infrastructure

Topic actuality 2/3

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- ✓ ***Enhanced Energy Security:***

  Diversified Energy Supply, because blending hydrogen and biomethane with natural gas can diversify the energy supply, reducing reliance on a single fuel source and improving energy security. Also in he case of disruptions to natural gas supplies, hydrogen and biomethane can provide a backup or replacement.

- ✓ ***Increased Flexibility:***

  Existing gas infrastructure can be adapted to accommodate various hydrogen and biomethane blends, offering flexibility in response to changing market conditions and technological advancements.

  Hydrogen and biomethane can be used for a variety of applications, including heating, cooking, transportation, and industrial processes, providing versatility and expanding market opportunities.

- ✓ **Synergies with Existing Infrastructure:**

Topic actuality 3/3

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✓ Synergies with Existing Infrastructure:

Existing gas facilities, such as metering stations and compression stations, can be utilized for both natural gas and hydrogen/biomethane blends, reducing the need for duplication.

This can lead to improved operational efficiency and lower overall costs to all system users.

Planed report outline:

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Report will cover at least this topics:

- ✓ **Stranded assets – actual situation, best practice, etc.**
- ✓ **Technical compatibility – blending possibility, hydrogen in the system, etc.**
- ✓ **Economic viability – efective system use, subsidies, market demand, etc;**
- ✓ **Regulatory and legal frameworks**
- ✓ **Environmental impact.**

Next steps

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- ✓ **Question preparing till the 20.october;**
- ✓ **In the next meeting discussion about questions to finalise questionnaire;**
- ✓ **Deadline for submitting questionnaire is plan till 1.december;**
- ✓ **Work on report preparing – Q3 2025.**

We are seeking for enthusiastic volunteers to join to the report writing team. This is a great opportunity to get deeper understanding of this important topic, will enhance individual research skills. Please do not hesitate to ask any question about this possibility.

THANK YOU FOR YOUR ATTENTION!

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Topic description based on Workplan

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This roundtable and report will explore the feasibility and potential benefits of repurposing existing gas infrastructure to accommodate hydrogen and biomethane blending.

The discussion will address critical sub-topics including **stranded assets**, **technical compatibility**, **economic viability**, **market demand**, **regulatory and legal frameworks**, and **environmental impact**. Emphasis will be placed on assessing the sustainability and cost-effectiveness of these approaches to meet evolving energy needs. **Additionally, the session will examine the implications of hydrogen blending with natural gas and biomethane injection, particularly their effects on consumers.** Insights will be drawn from both in-house expertise and international experiences to provide a comprehensive evaluation of this emerging trend in the energy sector.