

Urban Waste for Biomethane Grid Injection and Transport in Urban Areas

Project No: IEE/10/251



***Report on the national expert
consultation meeting on biomethane
use in Latvia***

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UrbanBiogas website: www.urbanbiogas.eu



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Contents

<i>Abbreviations</i>	4
<i>Introduction</i>	5
<i>Consultation workshop about the natural gas market liberalisation</i>	5
Agenda and presentations	5
Discussions after the presentations	7
<i>Annexes</i>	8
Annex 1: Presentation “Biogas in the Context of the Natural gas Market Liberalisation in Latvia”	8
Annex 2. Press release after the workshop	10

Abbreviations

CHP	Combined Heat and Power (co-generation)
JSC	Joint Stock Company
LNG	Liquefied natural gas
OJSC	Open Joint Stock Company

Introduction

The Latvian gas market is controlled by gas monopoly JSC “Latvijas Gāze” which is owned by Russian gas monopoly OJSC “Gazprom”, Germany’s E.ON and Russian gas supplier Itera. In order to start thinking about biomethane as reliable substitute of natural gas, the third party access to the natural gas grid should be guaranteed. At the moment Latvia is undergoing discussions for the natural gas market liberalisation and in that regard some significant political decisions have to be made. In the privatization agreement between Latvian state and JSC “Latvijas Gāze” the company has been granted exclusive rights to transmit and distribute natural gas in the whole territory of Latvia until 10 February 2017.

Latvian government is proposing several natural gas market liberalization scenarios. The situation is difficult because from one side the government is obliged to respect the requirements of the European Directive, from the other side – restrictions included in the privatization agreement that are supported by a strong natural gas lobbies.

In February 2013 the responsible committee voted for moving forward to the Parliament amendments in the Energy Law that should postpone the actual liberalization of natural gas market until alternative connections with third countries except Estonia, Lithuania and Finland are established. This decision supported the proposal of the JSC “Latvijas Gāze” and actually means resigning from the obligation to open the natural gas market by 4 April 2014 the latest. In the next step the proposal for amendments was directed to the parliament.

In order to strengthen the national political position and to raise awareness for the deputies of the parliament, the expert consultation workshop about natural gas market liberalisation was organised. One of the strong arguments for the natural gas market liberalisation is the opportunity to support the use of biomethane in Latvia.

Consultation workshop about the natural gas market liberalisation

The workshop was held in Riga 12 April, 2013. The main target group were parliament deputies and national energy experts. The objective of the meeting was to formulate position for negotiation of natural gas market liberalization in the Parliament. Three experts were invited to explain the situation and initiate discussions on this issue: independent energy expert Juris Ozoliņš, member of the European Parliament Roberts Zīle and Professor Dagnija Blumberga. As expert working on UrbanBiogas project, Professor Blumberga on her part focused on biomethane and how to support it through opening the natural gas market.

All together around 15 people participated on the workshop. Majority of the participants were deputies of the Parliament. Press release published after the workshop is given in Annex II of this report.

Agenda and presentations

The aim of the workshop was to formulate position for negotiation of natural gas market liberalisation in the Parliament and to discuss further steps and actions in that regard. Workshop had following agenda:

Date/Time:	12 April, 2013 / 3:00 pm
Venue:	11 Kaļķu Street, Riga, Latvia (Bureau of the National Alliance)

<p>Invited experts:</p>	 <p>Photo: Nozare. LV</p> <p>Juris Ozoliņš, independent energy expert</p>  <p>Photo: LETA</p> <p>Roberts Zīle, the member of the European Parliament</p>  <p>Photo: LETA</p> <p>Dagnija Blumberga, professor, director of the Institute of the Energy Systems and Environment of Riga Technical University</p>
<p>Presentations:</p>	<p>Juris Ozoliņš. Perspectives of the Natural gas Market in Latvia</p> <p>Roberts Zīle. European Legal Framework and Market Liberalization in Baltic States</p> <p>Dagnija Blumberga. Biogas in the Context of the Natural Gas Market Liberalisation in Latvia</p>

Energy Expert Juris Ozoliņš introduced participants to the natural gas market perspectives and the history of the natural gas market liberalization. He informed about the natural gas market structure in Baltic countries and in Finland. He stressed that Latvia and other Baltic countries legally and organizationally are moving closer to the domestic natural gas market in the European Union. National gas companies of Latvia, Lithuania and Estonia are associate members of the European network of transmission System Operators. Juris Ozoliņš presented several organizational models for separation of natural gas supply, transmission, and distribution functions.

Member of the European Parliament Roberts Zīle gave insight into the legal framework of the European policy regarding natural gas markets liberalization and implications to the Baltic Sea region. He stressed that it is important to keep reasonable, but strict attitude towards the natural gas market liberalization and construction of the liquefied gas terminal in Baltic Sea region. Roberts Zīle said that it is crucial that Latvia have alternative gas supply routes. Therefore he encouraged to support the construction of the liquefied natural gas (LNG)

terminal either in Latvia or in Lithuania, or possibly in Finland, and to develop connections through Latvia, Estonia and Finland.

Professor Dagnija Blumberga draw the attention of audience to biogas and biomethane that is even better alternative to the natural gas and can easily be distributed through existing natural gas networks. She started her presentation with an overview of biogas market in Latvia, also indicating on the weak points of existing biogas use. Currently biogas is used as fuel in combined heat and power (CHP) plans to generate electricity. However, gaps in existing legislative framework regarding requirements for being able to qualify for the electricity feed-in tariff, lead to the situation where majority of the biogas plants in Latvia are do not have heat consumer and biogas is used with low efficiency. Solution for this problem in future would be biogas upgrading and biomethane injection into the natural gas grid. Professor Blumberga stressed that biogas upgrading and grid injection is technically well developed and also economically justified. Besides it is also environmentally friendly solution, however it will be only possible if natural gas market is liberalized and opened to the third party access. Presentation of Professor Blumberga is given in the Annex 1 of this report.



Figure 1: Presentation of Dagnija Blumberga

Discussions after the presentations

After presentations the discussion about natural gas market in Latvia, gas market liberalisation, and the role of biomethane in the future gas supply was opened. Some of the participants asked about what should be the size of the biogas plant in order to be economically feasible upgrade biogas to the biomethane. Discussions also addressed the technical standards and requirements that biomethane should have. The fraction leader of the National Alliance Einārs Cilinskis stressed that liberalisation of the natural gas market should be done before or at the same time as in other Baltic countries. It was concluded that that Latvia urgently need some alternative gas supply route, providing efficient interconnection systems.

Annexes

Annex 1: Presentation “Biogas in the Context of the Natural Gas Market Liberalisation in Latvia”



Dr.hab.sc.ing. Dagnija Blumberga, profesore,
Dr.Sc.ing. Ilze Dzene, docente



Biogāzes ražotņu veidi

- Lauksaimniecības biogāzes ražotnes
- Rūpniecības uzņēmumu biogāzes ražotnes
- **Organisko atkritumu pārstrādes biogāzes ražotnes**
- **Notekūdeņu dūņu pārstrādes biogāzes ražotnes**
- Atkritumu poligonu gāzes ražotnes



Biogāzes izmantošanas veidi

- Biogāzi var izmantot elektroenerģijas, siltuma un biodeģvielas ražošanai
- Biogāzi izmanto:
 - Siltuma un elektroenerģijas ražošana (koģenerācija)
 - Tikai elektroenerģijas ražošana
 - Tikai siltuma ražošana
- Biometānu izmanto:
 - **Ievadīšana dabas gāzes tīklā**
 - Degviela transportam
 - Enerģija, izmantošanai augsto tehnoloģiju procesos (piemēram, kurināmā elementos)
 - Izejmateriāls ķīmiskajā rūpniecībā

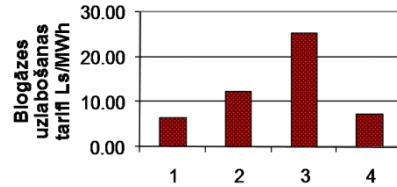


Biogāze → biometāns

- Biometānu iegūst, attīrot biogāzi no CO₂ un citiem piemaisījumiem (biogāzes uzlabošana).
- Rezultātā iegūst gāzi ar metāna saturu >95%.
- Izmantotās tehnoloģijas:
 - Absorbēcija
 - Adsorbēcija
 - Kriogēna atdalīšana
 - Membrānas
 - Kombinētās tehnoloģijas



Maksimālās izmaksas biometāna ražošanai



1 – absorbēcija; 2 – adsorbēcija; 3 – kriogēnā atdalīšana; 4 – membrānas tehnoloģija



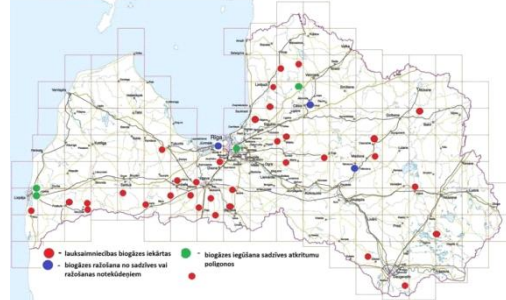
Latvijas biogāzes Ahileja papēdis

- 36 strādājošas iekārtas:
 - Kopējā uzstādītā jauda – 44 MW_e
 - Pārdod – 0,3 TWh_e/gadā,
 - 4 poligona gāzes ieguves stacijas
 - 3 ražošanas un sadzīves notekūdeņu biogāzes stacijas
 - 29 lauksaimniecības biogāzes stacijas
- Nākotnes vīzija 2030
 - Kopējā uzstādītā jauda ~ 100 MW_e



Strādājošās biogāzes iekārtas Latvijā

(A. Kārkliņa, LBA dati)



Kāpēc Ahileja papēdis?

- Videi nedraudzīgas. Biogāzes izmantošana arī ar zemu efektivitāti
- Finansiāli nepamatotas. Biogāzes tehnoloģijas saņem dubulto atbalstu
- Nepilda valsts apņemtānos pildīt ES Direktīvu 2009/28/EK par atjaunojamo energoresursu izmantošanas veicināšanu
- Lauksaimnieciski nedraudzīgas. Biogāzes ražošanai noplicina arī augstvērtīgas lauksaimnieciskās zemes



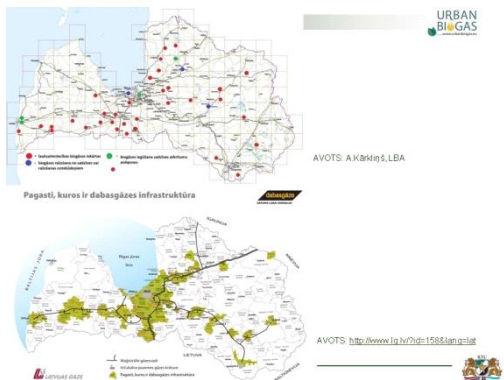


Ko darīt?

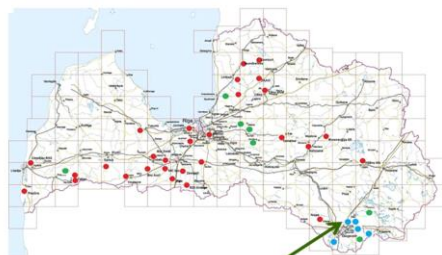
- 1.alternatīva. Turpināt pa vecam, nedaudz sakārtojot normatīvo regulējumu
- 2.alternatīva. Izveidot valstij, videi, lauksaimniecībai labvēlīgu valsts politiku, lai būtu ekonomiski pamatoti ievadīt dabas gāzes tīklā
- 3.alternatīva. Veidot vispusīgu valsts politiku, saprātīgi atbalstot:
 - Energoefektīvu elektroenerģijas un siltumenerģijas ražošanu
 - Biogāzes ievadīšanu dabas gāzes tīklos
 - Biogāzes izmantošanu transportā



Vidus aizsardzības un siltuma sistēmu institūts



Biogāzes iekārtas Latvijā (A.Kārklis, LBA dati)



Izdotas būvatļaujas Daugavpils novadā



Biogāzes ievadīšana tīklā

- Tehnoloģiski iespējama
- Ekonomiski pamatota
- Videi draudzīga
- Valstiski izdevīga

Iespējama tikai gadījumā, ja tiek liberalizēti dabas gāzes tīkli



Vidus aizsardzības un siltuma sistēmu institūts



Prezentācija sagatavota ar **UrbanBiogas** – biometāna ieguve no sadzīves atkritumiem un tā ievadīšana dabas gāzes tīklā vai izmantošana pilsētu transportā - atbalstu



Vidus aizsardzības un siltuma sistēmu institūts



Annex 2. Press release after the workshop

http://www.nacionalaapvieniba.lv/aktualitate/na-gazes-tirgus-liberalizacijai-janotiek-vienados-terminos-ar-kaimivalstīm/

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PLAŠSAZIŅAI

PASĀKUMI

NA LĒMUMI

INTERVIJAS

RAKSTI

VIEDOKĻI

NA: GĀZES TIRGUS LIBERALIZĀCIJAI JĀNOTIEK VIENĀDOS TERMIŅOS AR KAIMIŅVALSTĪM

17.04.2013 ► Saeimā

Ieteikt Tweet 0

Nacionālās apvienības (NA) rīkotajā seminārā „Dabas gāzes tirgus liberalizācijas ieguvumi un riski Latvijā un Baltijā” enerģētikas eksperti un citi nozares pārstāvji nedēļas nogalē izvērtēja valsts politiku dabasgāzes jomā un apkopoja viedokļus par optimāliem rīcības virzieniem.

NA valdes loceklis un Eiropas Parlamenta deputāts Roberts Zīle savā priekšlasījumā seminārā uzsvēra, ka NA attieksmei pret gāzes tirgus liberalizāciju un termināla būvniecību ir jābūt saprātīgai un stingai. „Latvijai vajadzīgi alternatīvie gāzes piegādes avoti, un ka risinājums varētu būt sašķīdinātās dabasgāzes terminālu starpsavienota sistēma caur Latviju, Igauniju un Somiju,” uzskata R. Zīle.

Seminārā ar priekšlasījumiem uzstājās arī enerģētikas eksperts Juris Ozoliņš un Vides aizsardzības un siltuma sistēmu institūta direktore Dagnija Blumberga.

“Lai nodrošinātu zemākas cenas patērētājiem, liberalizācijai jānotiek vienādos termiņos ar kaimiņvalstīm,” pēc semināra secināja NA Saeimas frakcijas vadītājs E. Cilinskis. “Taču tam jānotiek tādā veidā, lai tas tiesvedības ceļā neradītu zaudējumus valstij. Ir jābūt reģionālajam LNG terminālim, un tā atrašanās vieta nav galvenais jautājums”.

Informāciju sagatavoja L. Ozoliņa, Nacionālās apvienības preses sekretāre

► Birkas **Enerģētika, Gāzes tirgus liberalizācija**

► Personas **Roberts Zīle**