

THE OUTLOOK OF LATVIAN POTENTIAL UNDERGROUND GAS STORAGE AND PROSPECTS OF UTILIZATION OF THIS POTENTIAL FOR SECURING OF RELIABLE GAS SUPPLY TO EUROPE

1. Incukalns Underground Gas Storage

The stability of natural gas supply in Latvia is secured by Incukalns Underground Gas Storage (UGS), which is among the largest underground gas storages in Europe. The total volume of the storage is 4.4 BCM, and the active volume 2.3 BCM. In beginning of 2006, when most of European countries experienced distortions in gas supply and had to implement measures of limitation of gas consumption, consumers in Latvia enjoyed warm houses and, moreover, maximum daily gas consumption was reached in Latvia for the time period of the last ten years.

Gas into the storage is injected in time period of April to October, when gas demand in the region is the lowest, but withdrawn during the rest of the year when consumers in Latvia receive gas only from the storage, and some gas is delivered back to NW Russia and Estonia. Starting from 2006, also customers in Lithuania will receive gas from the storage again.

Daughter company of OAO “Gazprom”, OAO “Giprospepgaz” has elaborated a technical reconstruction project for Incukalns UGS including extension of the storage up to 6.2 BCM (working gas 3.2 BCM, cushion gas 3.0 BCM). In such a case, certain volumes of Incukalns UGS could be used for needs of customers in Finland if new pipeline connecting Estonian and Finnish gas grids will be built.

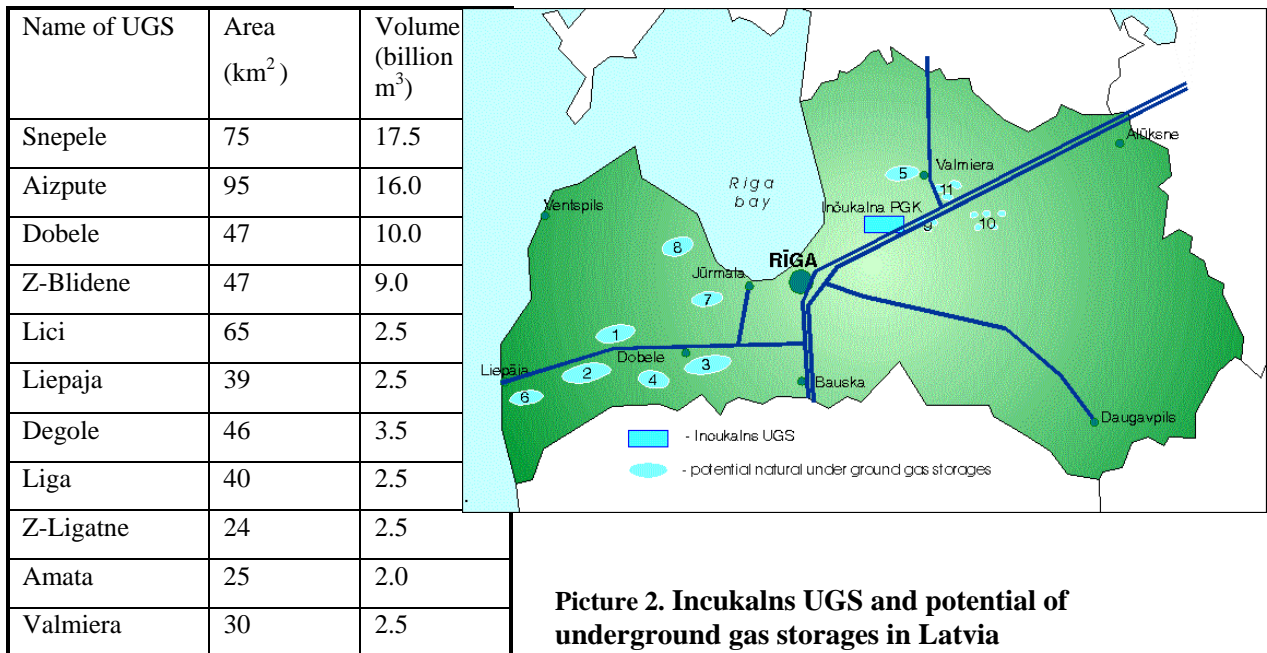


Picture 1.

Existing gas supply network of the Baltic Countries and prospective pipelines to be constructed in relation to gas supply from Incukalns UGS to Finland.

2. Potential of underground gas storages in Latvia

There are unique geological conditions for creation of the system of natural underground gas storages in Latvia with an active total volume of up to 50 BCM (the volume that is similar to the volume of underground gas storages used in the “ old” EU countries together). In accordance with estimates following underground gas storages could be developed:



A number of wells were drilled, single-fold seismic analysis and air magnetic and marine magnetic surveys were used to analyze the storage potential in Latvia in 60’s and 70’s. In 1972 Dobele structure was discovered. Taking into the consideration its favorable geological properties and location, 22 wells have been drilled (including 12 operation wells) there. In Dobele structure underground gas storage could be developed with the total gas capacity of 20 BCM and active gas volume of 10 BCM. Above information has been confirmed by the study on Latvian underground gas storage potential carried out by the Baltic Energy Corporation, CMS Gas Transmission and Storage Company and Michigan University in 1997.

3. Utilization of potential underground gas storages in Latvia for guaranteeing of secure gas supply for Western Europe

Assessing information regarding potential of underground gas storages in Latvia, their location between the gas producer (Russia) and the consumers (Western Europe) and present concern about security and reliability of gas supply in EU countries, it is obvious that Latvian underground gas storage potential can become the guarantor of the reliable gas supplies to the Western European countries.

In the end of 80's of the last century the project, foreseeing construction of gas pipeline through territory of Latvia for gas deliveries to Europe from Russia, which is the shortest route, was considered providing for involvement of Dobele UGS. However, later the decision was taken to shift the pipeline through the territories of Belarus and Poland. In the future, taking into the consideration the expected increase of gas consumption in Western Europe, it would be reasonable to consider construction of the next gas transmission pipeline from Russia to Western Europe through Latvian territory.



Picture 3. North European Gas Pipeline and possible branch line to Latvia for integration of potential underground gas storages in Latvia into gas supply system.

However, currently when construction of the North European Gas Pipeline (NEGP) is on its way already, in our opinion, the best solution for substantial improvement of security of gas supply to the Western European countries would be construction of the branch pipeline from NEGP to Latvia and development of Dobele UGS (or any other potential storage in Latvia depending on the feasible volumes to be stored). For this reason, we think, the new feasibility study regarding incorporation of Latvian underground gas storage potential shall be carried out. We would like to stress once again, that in case Latvian underground gas storage potential will be used significant natural gas volumes for the whole Europe will be kept within territory of the European Union and temporary and even middle-term distortions in gas supply will not affect customers in Western Europe.