

**Romgaz Activity in 2009 and the Strategy for 2010-2012  
(Geneva 19-21 January 2010)**

Romgaz SA, the National Gas Company, is an 85% state-owned company, specialized in the exploration, production, delivery, marketing and underground storage of natural gas.

The natural gas production activity in 2009:

- The exploitation of over 140 active gas fields, from the Transylvanian Basin and the extra Carpathian area ;
- The natural gas production, achieved in 2009: about 6 million Scm by the 2 production subsidiaries which hold:
  - 14 regional/county operation units of natural gas production;
  - Over 3400 natural gas production wells;
  - 463 technological well clusters;
  - 20 compressor stations with an installed capacity of 160,000 kW.
- It supplies natural gas to authorized and licensed distributors and to eligible suppliers and consumers.
- Total investments in 2009, of over 200 mil EUR, used as follows:
  - Geological research to discover new natural gas reserves - 58 mil EUR.
  - Drilling wells and other surface facilities - 52 mil EUR.

- Development of storage capacities - 15 mil. EUR;
- Environment protection - 2 mil EUR;
- Upgrading the existing technology and facilities - 33 mil EUR;
- New equipment - 30 mil EUR;
- Feasibility studies and projects - 10 mil EUR.

Romgaz operates six natural underground gas storages of its own, located:

- 2 in the Transylvanian Basin - Sarmasel, Cetatea de Balta
- 4 in the extra Carpathian area - Bilciuresti, Balaceanca, Urziceni and Ghercesti
- 2 deposits in association with other companies
  - Tg. Mures and Nadeş with Gaz de France Suez.

The maximum potential of the natural gas production in the 6 deposits operated by Romgaz at the beginning of the production cycle: 25 million. Scm/day + 2.5 million Scm/day from UGS-s operated by Gdf Suez.

In January 2009 (during the gas crisis) Romgaz provided 72% of consumer needs, by producing, gas stored in 6 deposits which was stored from its own fields, and gas stored by the main producers on the market.

Considering the given European context where the Romanian gas industry performs its activities, and the current share natural gas participate with, in the energy balance, it is estimated that, in the future, natural gas will represent one of the major primary energy sources in Romania.

We have often stated, on several other occasions, that, in Romania, natural gas is still the most important energy resource and will further hold a dominant position in economy.

This position is due to the following:

- The existence of important domestic resources and production;
- The transmission and distribution infrastructure, extended over the whole territory of the country;

- A favourable position in the international transmission system of Eastern and Central Europe;
- The existing transit through the Romanian territory to Bulgaria, Greece and Turkey – 3 pipelines of 28 Bcm/year capacity;
- The possibility of interconnection, in the near future, to the West European system and West Balkans (Serbia, Croatia) to Italy, to the gas resources of the Caspian and Middle East region ;
- The interconnection Hungary - Szeged – Arad pipeline was completed;

The globalization process implies more and more provisions regarding the energy security, especially in the oil and gas sector, where the main activity is that of gas underground storage.

While in recent years the dependence on one source of Romania and other EU countries has grown, the recent crisis in this year should be the right moment to develop a common and integrated strategic policy and a program of urgent measures to counter negative consequences, risk factors and crises arising from geopolitical factors. Such program should include:

- Strategic UGS – national and regional with minimum strategic stocks to ensure consumption for a set number of days, performance extraction to cover the lack of import sources;
- LNG terminals connected with UGS;
- Connections between UGS and national grids.

The development of gas storage capacity is meant to increase the security of gas supply to consumers, under crisis conditions, and contributes to the key issue of setting up a Romanian energy strategy.

Under these circumstances, the underground storages are presently used mainly for:

- Covering the peak consumption and the fluctuation of demand;
- Pipeline system balancing;
- The delivery control in extreme situations (technical accidents, supply interruption, etc.) – emergency backup.

Therefore, in addition to the traditional function, counter – balancing the source and consumption, the storages have to be a support of the entire chain of activities, starting from sources – production up to the final users.

Gas storages should be used as a support during the low consumption periods, for mature reservoirs, especially for natural gas reservoirs that raise special technological issues and which need to have an uninterrupted production process.

Likewise, the gas storages connected to the transmission systems, having several interconnections with national grids, may be used as an instrument for improving the operation (to maximize the flow capacity) of the transmission systems, a vital factor in ensuring the continuity of supply and the increase of the safety degree, as previously detailed.

Considering the current geopolitical situation, it is necessary to redefine the role of the gas storages in relation to the continuity, safety and flexibility of gas supply, according to the scope of the entire chain – at the national, local area and regional level:

- national – production, transmission, distribution;
- local area – pipelines interconnected through the national transmission system with the underground gas storages;
- regional – transit pipelines connected to underground gas storages for the operation optimization.

The strategic goal of the underground storage is to provide security of supply at a national and/or local area/regional level. Clearly defined regulations are necessary for the activity of storing strategic reserves in underground storages, as an obligation of the state and of all the other entities involved, one way or another, in the process of ensuring security of supply in force majeure situations of a geopolitical, geodynamic nature and/or in case of terrorism. They should ensure the minimum consumption, necessary for the performance of the vital activities, for a minimum time period.

It is necessary to redefine the risk areas and to establish the specific safety, protection, intervention and recovery measures, as well as to establish the legal security methods for all facilities and installations of the storage capacities,

of the networks/infrastructures, that are used to interconnect the gas storages with the transmission and/or distribution systems.

Romgaz can contribute to a continuous, safe and flexible supply of natural gas by:

1. Development of the existing storages in order to optimize the total and working capacity, as well as the withdrawal capacity which has to cover the more and more fluctuant demand. It consists in:

- Creating or developing the optimum volumes of gas cushion, which ensure the right working pressures, thus achieving an optimum withdrawal regime. Gas cushion in Romanian gas storages are the following: Bilciuresti-300 million cm, Urziceni-75 million cm, Cetatea de Balta-100 million cm and Sarmasel-540 million cm;
- Continuing recompletion and finalizing the gravel packing operations in the wells (unconsolidated sands);
- Progressive increase of the working gas capacity for Cetatea de Baltă storage, achieving 250 million cm in 2010.
- Development and construction of facilities for Ghercesti storage until 2010 for a total capacity of 880 million cm, out of which 600 million cm represent the working gas. The investment works consist of infill of high performance wells and modern completion of wells, building up of compressor stations and of surface facilities (collectors, separation systems, conditioning and fiscal metering of gas injected/withdrawn in/from the storage).

By achieving these objectives in 2010, the maximum withdrawal flow rate will increase from 23 million cm/day to about 35 million cm/day.

Creating the optimum gas cushions in each UGS, would lead to a significant increase of the storage withdrawal potential in the process of supply with about 20% - 35% compared to the current flow rates.

2. Drilling new wells with modern completion and large diameter only for withdrawal cycle will cause a significant increase in performance (about 50%);

3. Selection and evaluation of new depleted gas reservoirs that should be converted into efficient UGSs for the domestic and regional market, and for the European regional market. Currently it is analyzed the alternative of development

of a new underground gas storage in Moldavia consumption area, in the semi-depleted reservoir from Margineni.

This project is currently in the phase of a Feasibility Study for development of storage in the Margineni reservoir.

Besides natural gas underground storage, other activities performed by Romgaz are:

- The geological research to discover new natural gas reserves;
- Natural gas production and supply.

Romgaz strategy for the geological research within the period 2010-2012 focuses on the intensification and diversification of the geological research works within the perimeters of exploration, development and production under SNGN Romgaz SA concession.

- The accomplishment of geological exploration works in the perimeters from Moldavia and Transilvania, in partnership with foreign companies (Aurelian, Wintershall, Amromco, etc.) and outside Romania, in Slovakia and Poland, (with Aurelian);
- Drilling 70 wells for geological exploration, in length of 140,000 meters;
- The identification and concession of new significant areas (blocks);
- Complex projects and studies meant to rehabilitate the gas subsurface and surface facilities to increase the production and final recovery factor, the development of new UGS and of the existing ones for various purpose.
- The identification of significant areas of minimum risk, outside Romania, where Romgaz could perform petroleum operations.

Romgaz strategy in the activity of production for the period 2010 – 2013 focuses on:

- The execution of 360,000 meters production drilling;
- Putting into operation of about 180 new wells;
- The workover, interventions and special operations in about 720 wells;
- The rehabilitation and upgrading of the existing compression stations and installing new compression facilities in the field, for individual wells;

- The upgrading of the surface infrastructure of the wells, of the collecting pipes and of the separation, dehydration and measurement installations;
- The rehabilitation of the natural gas production by its own efforts and by cooperation with foreign companies.

Also, Romgaz considers environmental issues to be an integrated part of corporate policy and strategy, and it manages its production processes with a view to protect the environment by optimizing the use of natural resources and raw materials.

In conclusion, while the expansion of the gas market does and will continue to foster the search for new gas reserves, for development of new ideas and new techniques, the role and tasks of gas storage must be redefined, if energy is to meet the long range requirements of the expanding gas market.

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