

SCENARIOS OF GAS PRODUCTION DURING THE PERIOD UNTIL 2030

Russia enters the XXI century with a large resource base of natural gas [3, 8, 9, 12, and 13]. Current explored gas reserves, as of 01.01.2000, are 46.9 trillion cu m. Average depletion of initial reserves is 20%. Over 29 trillion cu m of total current explored reserves have not been put into development, including:

about 4 trillion t cu m from producing fields (a possible reserves for maintaining production in 2005-2007);

17.2 trillion cu m in developed fields;

0.4 trillion cu m in fields closed down temporarily;

7.6 trillion cu m in fields under exploration.

7.2 trillion cu m of reserves explored in developed fields and those under exploration are concentrated in the Nadym-Pur-Tazovsky area, 10.4 trillion cu m in Yamal, 1.1 trillion cu m in Gydan, and 2.7 trillion cu m in the Shtokmanskaya group of fields in the Barents Sea. These reserves are the most immediate reserve for the development of production early in the XXI century.

In addition, the above areas, water areas of the Ob and Tazovskaya inlets and shelves of the Barents and Kara Seas in particular, have potentialities for preparing additional reserves on the revealed promising structures and due to preliminary appraised (category C₂) reserves, including 8.7 trillion cu m in Western Siberia and 3.5 trillion cu m in the shelf of the above seas.

In Eastern Siberia and the Far East there are explored reserves (2.7 trillion cu m) that are practically not developed.

The maintenance of gas production capacities and even their growth during the period until 2030 mainly depend on the creation of systems of gas transportation from remote new producing centers in severe conditions of tundra and seas. Just investments in the development of the fields discovered in Yamal, Gydan, the Pre-Yamal and Barents sea shelves will first of all effect the dynamics of gas production in Russia in 2007-2030.

OAO Gazprom, ~~VN~~Ngaz Ltd. and some other collectives have developed multi-variant concepts of gas production until 2020-2030. Under the optimistic scenario, in Russia a top gas production of 830-840 billion cu m a year, including 650-660 billion cu m of onshore gas and 180 billion cu m of offshore gas, may be achieved with the participation of all producing companies in 2030.

There are other variants of gas production dynamics, for example, providing for the maximal production of 775 billion cu m of gas a year in 2025 and a drop in production to 770 billion cu m in 2030. Under this variant, a top production

level may be achieved due to putting into development of only already discovered fields. Besides, scenarios have been developed under which in 2030 in Russia top gas production levels may come to 800; 750; 750-795; 635-735 billion cu m.

The following two stages may be distinguished in the near future: the 1st – up to 2007 – when production (at about the 1995-1999 level) may be ensured through the development of new areas and new reservoirs of producing fields and the 2nd – 2007-2030 – when new fields should be put into production and extra additions to reserves are required to ensure a increase in production during the period until 2030 and to maintain the level of reserves after 2030.