

## The Economic Crisis and the Future of the Gas Sector

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WE ARE GOING THROUGH a difficult period both for the world economy and for the world energy sector, including the gas industry. That is why a constructive dialogue between all gas market players, as well as regulators and politicians, is of exceptional importance. Today it is hard to find a gas market player not in search of an answer to the question of how long the financial and economic crisis will last and how it will affect the gas industry's future structure and activity.

I will try to outline the position of OAO Gazprom on these questions. Clearly, the dialogue should start with an objective, dispassionate analysis of the current situation. Before drawing any conclusions on the consequences of the crisis for the gas sector, we must get the right diagnosis.

Some say that the crisis has already led to irreversible changes in the European gas market: gas consumption has fallen catastrophically, and a recovery in demand to the pre-crisis peak level of 2008 will take many years or may not occur at all. At any rate, this follows from one of the scenarios presented by the International Energy Agency (IEA).

At the same time, it is argued that the system of long-term take-or-pay contracts is outdated and that it should be dismantled and replaced with shorter-term (e.g. annual) contracts. Then the problems with unused gas will allegedly disappear by themselves.

Oil linkage has also drawn sharp criticism, in large part because prices under long-term oil-indexed contracts have for about a year now remained above prices based on supply and demand. In a market situation, the proposal is to replace oil-indexed pricing with spot pricing.

In the natural sciences there is a concept of reversible and irreversible dynamic processes. If we apply this concept to the gas market, we will in fact have to answer the question of whether or not this market will return,

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in its essential features, to its former state after the crisis. In search of an answer, let us look at the statistics.

The financial and economic crisis led to a decline in European gas consumption in 2009, primarily in industry and power generation, and hence to a significant reduction in imports of Russian gas.

Global gas consumption in 2009 fell by 2.8%, and European consumption, by 5.4%, or by 31.4 billion cubic meters (bcm). This decline in consumption is unprecedented in the history of the European gas sector; previously, such drops were recorded only in individual countries.

But is there sufficient reason to speak of irreversible changes? In itself, the drop in demand does not prove anything, especially since European gas consumption in absolute terms, even in crisis conditions, has not fallen below the 2007 level. It is necessary to present compelling qualitative arguments in favor of the statement about the systemic destruction of demand for natural gas.

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Major consulting companies have the same view on the reversible, cyclical nature of processes in the gas sector. In their estimate, European demand for gas has already bottomed out. The time frame for a recovery in demand to pre-crisis levels remains an important question for the gas sector. In our opinion, most market indicators will return to pre-crisis levels in the medium-term period.

In December 2010, prices under long-term contracts with oil and spot indexation equalized. In 2011, at the end of the winter season of peak off-take, it will become clear whether prices have settled for good. In any case, price equalization is a matter of the near future.

The decline in gas demand is a result of the financial and economic crisis and is directly dependent on how quickly the European economies recover from this crisis. We have recently heard statements that the worst is already over. And these are not only statements: the tone of the market has changed significantly.

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For example, the consensus forecast for GDP growth in 2010 improved over several months from 0.4% to 1.3% for Germany, from 0.3% to 1.1% for France, and from 0.3% to 1% for the eurozone. And net gas imports increased in the first three quarters of 2010 by 14.7% compared to the same period of 2009.

Most forecasts by leading consulting agencies, government organizations and industry associations point to an increase in European gas demand over the long term. According to the consensus forecast, demand for gas in the European countries will reach 637 bcm in 2020 and 648 bcm by 2030.

Another reason why Europe will require more gas is the decline in own gas production. As with demand, there are dozens of forecasts of a decline in gas production in Europe. They differ slightly from each other as to the rate of decline, but all of them predict nothing but a decline.

To summarize, let me say that the current change in the balance between demand and supply in favor of the latter is no reason to make fundamental changes in the institution of long-term contracts. The crisis, though unprecedented in scale, is a transient process. Take-or-pay terms as a guarantee of demand security were not introduced into long-term contracts to be cast aside simply because the lower off-take of Russian gas has for the first time reached significant proportions. Similarly, there is no reason to abandon oil indexation because the market is moving towards parity of contract and spot prices.

I would like to mention another aspect that causes both surprise and concern. Under the currently popular concept of a “carbon-free world,” natural gas is seen as a conventional fossil fuel except that it burns more cleanly, with fewer pollutant emissions. Within the framework of this concept, the noble and urgent task of reducing anthropogenic greenhouse gas emissions into the atmosphere is addressed by moving away from hydrocarbons (including environmentally cleaner natural gas) towards widespread use of renewable energy sources. Politicians in many European countries are trying to convince their fellow-citizens that there is no alternative to renewable energy sources in the efforts to reduce emissions. But this is not the case. Such an alternative does exist.

Calculations show that CO<sub>2</sub> emissions can be reduced by 185 million tonnes (which amounts to half of the EU target for 2020) by replacing less than half of the EU’s coal-fired generation capacity with modern combined cycle plants with a total capacity of about 50 GW. In terms of capital expenditure, this is a more economical way to reduce emissions than

nuclear power or renewable energy sources. For example, measures to achieve the same effect in reducing emissions through the use of wind power would require about \$150 billion of investment, while combined cycle plants would require no more than \$50 billion, with savings of around \$100 billion.

I will not go into the question of the availability of gas supply adequate to meet such demand. Gas reserves are sufficient to sharply increase supply to the market.

Finally, we must take into account the energy security factor. In our understanding, security of energy supply means the capacity to meet peak demand in a predictable and cost-effective manner. From the perspective of energy security, natural gas is the most reliable source of energy during peak loads compared to any other sources, including nuclear, solar, wind and hydro power. As for renewable energy sources, their dependence on weather and climatic conditions is too great. During the winter months, for example, wind generators in the UK have operated in the past six years at 0% to 50% of capacity, and in the past two years, at 0% to 10%. No power system operator can guarantee to meet peak demand by using renewable energy sources. Consequently, during peak demand periods, when there is no alternative to gas-fired generation, consumers will be paying a tax on gas as a hydrocarbon fuel. This goes against common sense.

In conclusion, I would like to emphasize that we in Gazprom are geared to long-term mutually beneficial cooperation with our foreign partners. And we are confident that this cooperation will not only be successful for its individual participants, but will also help to achieve the main goal: increased energy security.

*Key words:* European gas market, decline in gas demand, concept of “carbon-free world,” pollutant emissions, energy security.