

Confidential

RUSSIA

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Irina Mironova reports from Moscow:

RUSSIA AND IRAN IN THE GLOBAL GAS MARKETS: FUTURE COMPETITION INEVITABLE?

ANNOTATION

The global energy markets have been undergoing tectonic shifts in recent years. They include an unprecedented growth of Chinese demand, a rebalancing of global trade towards Asia, North America's transformation into a potential net exporter of energy resources, and the reorientation of the European market towards commodity exchanges. These and many other factors are having profound effects on energy flows between different parts of our planet. The oil and gas geopolitics is changing its shape. There are growing indications that Russia's priorities and its role in the regional energy markets are changing, not least because of the situation in Ukraine and the related Western sanctions against Russia.

Meanwhile, clear progress is being made towards the possibility of sanctions against Iran being lifted. If the sanctions regime is lifted, Iran will secure access to investment (especially in energy exploration and production) and liquefied natural gas (LNG) technologies. It will then be able to step up its presence in the global gas markets.

Russia and Iran have the world's largest reserves of natural gas. The main factor both countries have to deal with is the trend towards the enlargement and liberalization of regional gas markets. Also, both have the option to supply their gas to the Atlantic as well as the Pacific markets.

Irina Mironova, a researcher with the Russian Academy of Sciences' Institute of Energy Studies, believes that in these circumstances, both countries could potentially play the key role of arbitrageur, i.e. a major supplier that can export its output to several regional markets at the same time, and rebalance the export flows as necessary, thereby affecting the balance of supply and demand. Russia and Iran are in a position to play just such a role in the foreseeable future.

Does that mean that future competition between Russia and Iran in the international gas markets is inevitable? Mironova offers her assessment of Iran's chances of entering the global gas markets, and Russia's nascent strategy in that regard.

Similarities between Russia and Iran in the energy market

- 1) Both Russia and Iran have large reserves of hydrocarbons, including natural gas. According to BP estimates, Iran, which was previously reckoned to hold the world's second reserves of natural gas after Russia, now tops that ranking, pushing Russia to second place (see Fig. 1). As of 2013, the Iranian reserves of natural gas were estimated at 33.8 trillion cu.m.; Russian reserves stood at 31.3 trillion.
- 2) Sitting at the center of the Eurasian continent, both countries have potential access to the European as well as Asian energy markets. In other words, they can play the role of an arbitrageur, i.e. a major supplier that can export its output to several regional markets at the same time, and rebalance the export flows as necessary, thereby affecting the balance of supply and demand, as well as securing the largest possible profits, depending on the level of prices.
- 3) Both countries have the potential to increase LNG exports. LNG is the crucial link between the various regional markets for natural gas. So far, both countries play only a fairly limited role in the global LNG market. Russia has wasted several years when opportunities were wide open to secure new LNG customers, and now it is forced to play a catch-up game with its rivals. Iran's situation is even worse, as the country controls less than 1 per cent of the global gas trade.

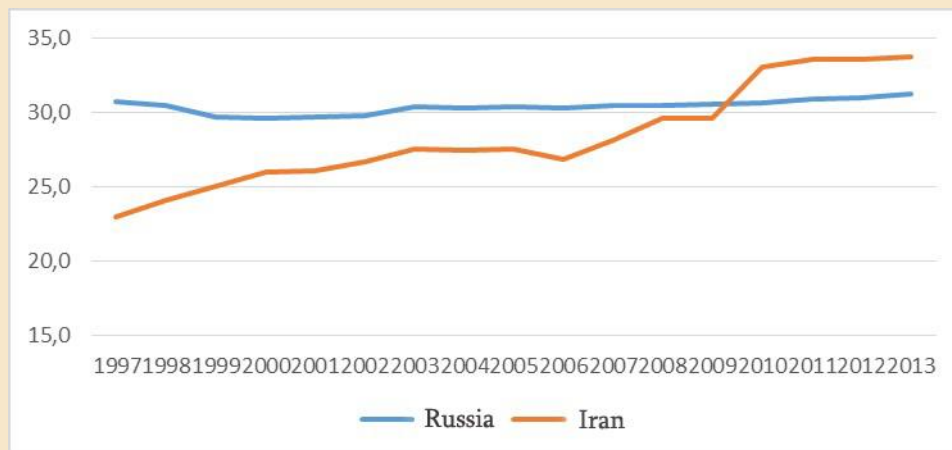


Figure 1. Russian and Iranian proved natural gas reserves
 Source: BP Statistical Review of World Energy 2014, Historical Workbook

The geography of Russian gas exports includes trunk pipeline supplies to Europe and LNG exports to Asia. In 2014 Russia also signed a contract for pipeline exports to China; actual deliveries are expected to commence by 2020.

Iran currently exports natural gas to Turkey (about 8bn cu.m.), Armenia, and Azerbaijan (less than 1bn cu.m.). The country also imports natural gas from Turkmenistan, but those imports have fallen substantially because of payment difficulties resulting from Western sanctions on Iran. The Iranian share of the global gas exports and imports was 1 per cent or less in 2012. Incidentally, in some years Iran was a net importer of natural gas.

The Russian and Iranian gas export figures demonstrate that Iran's current role on the international energy markets is well below its potential, especially given the country's vast gas reserves.

A major factor that restricts the Iranian energy exports is the growing burden of international sanctions. The first of those sanctions were imposed by the United States back in 1995 under the Iran Libya Sanctions Act (ILSA). Iran and Libya stood accused of financing terrorist organizations. The damage done by the sanctions regime is twofold:

- **First**, the sanctions hamper investment in energy exploration and production because U.S. companies' investment in Iran is capped at a very low ceiling (although Austria's *OMV* and China's *CNPC* and *CNOOC* continue to invest in Iran);
- **Second**, Iran is denied access to LNG technologies. As a result, it is unable to pursue LNG exports, which are a key element of gas export strategies these days.

Speaking of the prospects for competition between Iran and Russia, the main focus should be on the Iranian potential to increase its participation in the international gas trade, since Russia's position in these markets has been more or less steady over the past 20 years. The only question with regard to Russia is how large a share of the Asian markets it will be able to secure, and what role will be played in that process by LNG.

PROSPECTS FOR IRANIAN ENERGY EXPORTS

Iran's efforts to increase its natural gas exports should focus on **five key markets**:

1. The first and very obvious market is **Iran's direct neighbors**, i.e. Turkey and the South Caucasus. In fact, Iran already supplies gas to the Azeri enclave of Nakhichevan, while Azerbaijan supplies similar amounts of gas to northern Iranian provinces. One specific project worth mentioning is the proposed Turkmenistan-Iran-Turkey pipeline, which could potentially turn Iran into a key link in the inter-regional dynamics.
2. The second area on which Iran should focus is pipeline exports to the **Gulf states**, where Iranian gas can be turned into LNG and exported to other countries. Iran is currently discussing such exports with Oman. Other potential destinations include Kuwait, Bahrain, and the UAE, where gas is needed to increase the efficiency of oil extraction (by boosting pressure in the oil wells).
3. The third key destination of future Iranian pipeline exports is **India and Pakistan**. If the Iran-India-Pakistan project is ever implemented, it will be able to replace the Turkmenistan-Afghanistan-Pakistan-India pipeline project.
4. It is hard to overestimate the significance of **LNG markets** for the global gas trade, and Iran obviously has plans in that regard. Iran could potentially leverage the same advantages as Qatar (i.e. the geographic

situation that is convenient for exports to the Atlantic as well as the Pacific markets).

5. The fifth and final destination is exports to the **Western markets**. The most high-profile projects include *Nabucco*, the proposed gas pipeline that was supposed to bring natural gas from the Caspian region to Europe, with Iran, Iraq, and Turkmenistan acting as potential suppliers.

There are several problems with Iranian participation in the Nabucco project, which will also apply to any other projects of exporting large amounts of Iranian gas to the Western markets:

- *First, such exports are not high on the list of Iran's own priorities, which focus on the domestic market and exports to the neighboring countries;*
- *Second, the current investment climate is not conducive to a large increase in Iranian gas production;*
- *Third, there was a major disruption of Iranian pipeline gas exports to Turkey in 2007 because Iran was not producing enough gas to cover its own domestic needs. That raised obvious concerns about the reliability of the National Iranian Gas Corporation (NIGC) as a supplier.*
- *Finally, the crisis over the Iranian nuclear program is still ongoing, and sanctions against Iran are still in place, emphasizing the complicated nature of relations between Iran and the West. That is the key geopolitical obstacle to any cooperation in the natural gas sector.*

WHAT CHANGES AWAIT THE INTERNATIONAL GAS MARKETS?

The first major factor that should be considered is the restrictions the Russian oil and gas sector will have to face over the coming years. The Western sanctions against Russia may prove quite painful. In such a situation the Russian economy will most probably completely reorient itself towards China. That reorientation will also include oil supplies to China's rapidly growing petrochemical sector. Russia will also have to redirect at least some of its natural gas exports to the Asian markets. That will require much more money and time than such projects as the expansion of the *Eastern Siberia - Pacific Ocean (ESPO)* pipeline. Restrictions on selling equipment to Russian oil and gas companies may also prove a major hurdle for any new projects by increasing costs and forcing delays.

Such a scenario, however, is only relevant for Russia's own interests, and will hardly affect relations between Russia and Iran. Meanwhile, there is the **second major factor** that has the potential to cause rivalry between the two countries in the global gas markets. That factor boils down to Iran's energetic efforts to win a greater share of the natural gas markets beyond the Middle East and the Caspian region. Such a scenario is analyzed in the *Forecast of the Russian and Global Energy Sector Development to 2040*, a study released by the Russian Academy of Sciences' Institute of Energy Studies in cooperation with the Russian Cabinet's Analytical Center. The "New Producers" scenario in that study is based on the top range of estimates for oil and gas production by new players, the largest of them being Iran, Qatar, Australia, East African countries, and Turkmenistan.

The situation in Iran is currently as follows. Oil and gas account for 80 per cent of the country's export revenues. More than 62 per cent of the Iranian gas reserves (held at oil and gas fields as well as unassociated deposits) are not being produced at the moment. Following the discovery of the South Pars field, the forecasts for Iranian gas production are fairly optimistic. In fact, the new field could at some point account for up to 50 per cent of the country's gas output. **Iran's priorities for using its natural gas** are as follows (in the descending order):

- 1) Domestic use, especially in electricity generation;
- 2) Using natural gas to boost pressure in oil wells and thereby increase oil production;
- 3) Industrial uses of natural gas, especially in the petrochemical industry and gas-to-liquid (GTL) synthesis of liquid fuels;
- 4) Natural gas exports.

Under the most optimistic scenario, Iran's gas production could rise by 150 per cent between 2010 and 2040 to 370bn cu.m. This projection for Iranian gas production is included in the "New Producers" scenario in the aforementioned study by the Institute of Energy Studies and the Russian Cabinet's Analytical Center.

If this scenario comes to pass, it will have major implications for the positions of other key players. Production costs at the new Iranian fields will be much lower compared with the new Russian fields. On the whole, new Russian projects tend to be technologically challenging and situated far from the existing infrastructure, in remote regions with difficult climate. As a result, new Iranian production may depress natural gas prices in the highly competitive European market, as well as the Asian markets. Calculations in the aforementioned paper by the Institute of Energy Studies indicate, however, that growing gas production by the new players will not cause the prices to collapse in the 2040 time frame, although the situation may vary depending on the region.

Growing output by new suppliers will take away market share from the most expensive of the traditional suppliers, such as North America, the CIS countries, and Australia. Of all the new producers, Iran will be the main beneficiary.

The following **conclusions** can be made:

1. Growing production in Iran and other new suppliers will have the greatest effect on the energy markets in the period before 2020. It will cause a commensurate decline in production in Russia, the United States, China, Mexico, Malaysia, Indonesia, Norway, Britain, Kazakhstan, and Saudi Arabia.
2. Speaking of the implications for Russia, gas exports via pipelines will not be affected quite as strongly as LNG exports. The greatest impact will be on Russian exports to Europe via Ukraine and Belarus in the 2030-2035 time frame. The reasons for that will include growing supplies via alternative routes and growing European imports of LNG. Incidentally,

even the "New Suppliers" scenario does not regard growing gas exports from Iran via pipelines as a realistic prospect.

3. For Russia, the most serious implications of the emergence of new suppliers will be in the area of LNG exports, and not only to the traditional LNG markets such as Korea and Japan, but also (and perhaps more importantly) to Europe and China. Such a scenario is bad news for Russia for two reasons:

a) Priorities of the Russian gas strategy are shifting towards the Asian markets and LNG exports (as suggested, for example, by a limited liberalization of Russian LNG exports since late 2013);

b) Market mechanics in Europe are changing (gas is increasingly traded at major hubs, and in a more competitive environment).

There is clear potential for Iran to become a major player in the global LNG market, whereas the prospects of new inter-regional gas pipeline projects don't look nearly as good. How realistic is such a scenario for Iran? The answer will depend for the most part on whether the sanctions against Iran remain in place. The Iranian oil and gas sector has long been starved of investment. Western and Asian companies (including Chinese giants) are looking for opportunities to invest in Iranian oil and gas production. For the Chinese in particular, investing in Iran appears to be a more attractive alternative to developing China's own unconventional oil and gas deposits.

In view of all these trends, the prospects for Russia and Iran becoming rivals in the international gas markets will depend on the following factors:

- First, whether Iran will make a deliberate decision to target the same markets as Russia;
- Second, whether the two countries can coordinate their strategies in the global gas markets using the existing institutions.

Speaking of direct competition, as this paper has demonstrated, in the near time frame Russia's and Iran's spheres of interest may overlap only in a fairly limited way. The existing institutions are not sufficient to coordinate the suppliers' strategies as a cartel, and this is not really the objective. In any event, Russia must be ready to work in a new and more competitive environment in the international markets for natural gas. The strategic decisions being made in the area of export destinations and technologies will largely determine Russia's position in these markets in the medium and long term.

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Trialogue Club
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Dmitry Polikanov