LNG Supply and Demand after the Great East Japan Earthquake and Japan-Russia Cooperation

HIRAI, Hirohide
Director, Petroleum and Natural Gas Division,
Agency for Natural Resources and Energy,
Ministry of Economy, Trade and Industry (METI), Japan

The Great East Japan Earthquake has become a major turning point within Japan's energy strategy. Considering the current situation for nuclear power, what has hopes pinned on it as the central "pinch hitter", facing the immediate needs of the supply of electricity, is electricity generation from LNG.

Within the global trade in LNG, the position Japan occupies is large, constituting a third. For countries like Japan which are surrounded by sea and don't have their own resources it can be said that there is no other option but LNG. The ROK is in a similar situation, and the two countries together constitute approximately half of the global total. In this sense the Far Eastern market is in an important position globally (Figure 1, right).

Regarding the origin of Japan's LNG imports, Indonesia was once top, and its share was very large. Including the neighboring country of Malaysia the appearance was that the two countries constituted approximately half of the total. This image has changed rapidly in recent years; Australia rose up and made up 19% of the total in 2010 (Figure 1, left). Considering the next 5-10 years, with the jostling for the offshore LNG development program in Australia, there is the momentum for overtaking Qatar, which has the world's top capacity.

Amid these circumstances, what kind of situation will unfold after the earthquake? The demand for LNG in Japan ordinarily is at the 70-million-tonne level annually, but this year the volume of imports will probably be around 80 million tonnes, an increase of 10 million tonnes.

For the global situation for supply and demand there is ample supply capacity to absorb the additional demand of 10 million tonnes. What has changed the appearance of the gas world-map in this way has been North American shale gas. According to the US Energy Information Administration (EIA), the prospects for import of LNG from the United States as of 2005 were seen as likely to continue growing greatly. This fell to practically zero in the forecast of 2011 (Figure 2, right). This is due to the presence of shale gas (Figure 2, left). The country that had been banking on the growth of demand for US LNG was Qatar, and the great production increase has subsumed the sudden demand from Japan.

So how will things be henceforward? According to the Institute of Energy Economics, Japan (IEEJ), production capacity will continue to exceed demand at least until 2030, but there is a condition attached insofar as whether the projects which are currently under consideration will continue to start up smoothly (Figure 3). What is important is whether that many projects can continue to start up properly. Various challenges exist in each respective country. Among these, the main pillar, which we consider a challenge, is that Japanese companies in large number are able to become involved in LNG supply, even if only slightly, and through that contribute to the spare capacity in the global LNG supply. This will also contribute to energy security.

In fact, this year the emergency procurement from projects in which Japanese firms are participating has been marked. The importance has again been brought home for the securing of interests in upstream resources, not only for

Figure 1: Japan's LNG Imports

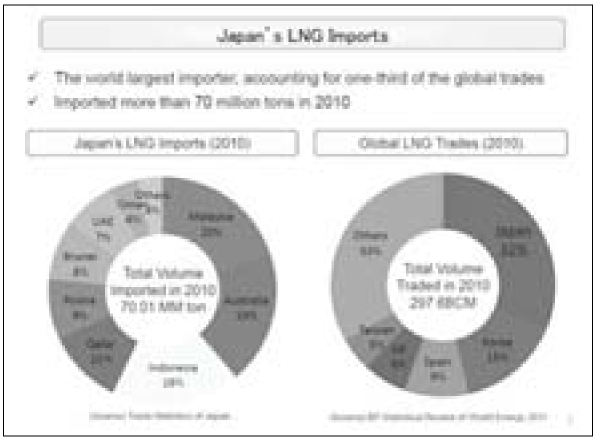


Figure 2: The Expansion of Shale Gas Production in the United States

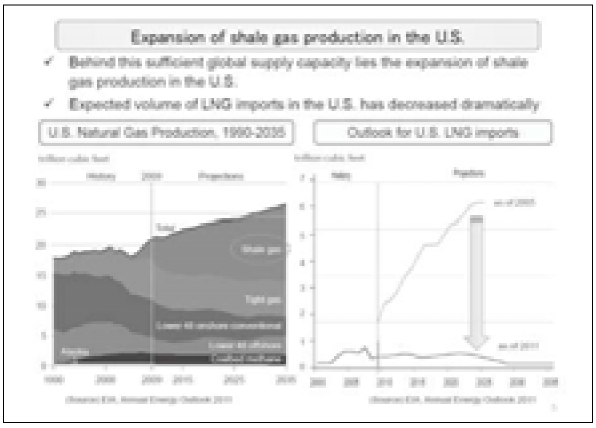
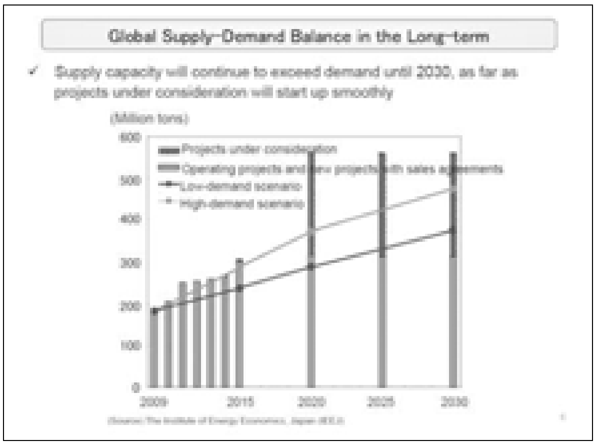


Figure 3: The Global LNG Supply-Demand Balance in the Long Term



LNG, but for oil and natural gas, etc.

In this situation, I would like to explain what initiatives have been taken to date and what was thought, particularly in relations with Russia in the oil and gas sectors.

We have a tendency to forget that the country with the world's largest oil production and gas resources neighbors Japan. To date, effort has been made over a long period in attempting to build good relations with that neighboring country, Russia. Representative of this is the import of LNG and the Sakhalin II project. After LNG imports began in 2009, the LNG from Sakhalin II has now come to occupy 8.5% of the Japanese market. Immediately after the earthquake, one of the sources settled for the additional supply of LNG was LNG from Sakhalin.

Gazprom, the world's largest gas company, which is the majority shareholder in Sakhalin II, and the Agency for Natural Resources and Energy, concluded a Memorandum of Understanding on cooperation in November 2005, and ever since they have been seeking possibilities for cooperation for various projects. A recent project is the Vladivostok LNG plant. They are currently undertaking feasibility studies for constructing a ten-million-tonne-class LNG plant, to be a major center supplying Russian gas to the Asia-Pacific. We are also cooperating with the idea that we want to import this to Japan too at an early date. Various projects to this end targeting Vladivostok are underway, and the pipeline from Sakhalin was completed in September 2011.

I would like to present the situation regarding oil too. Oil from Sakhalin I and Sakhalin II has also been steadily increasing in production, in addition to this there has also been the completion of the Eastern Siberia-Pacific Ocean pipeline (ESPO), and in Japan the import of oil from Russia has also expanded to 7.1%. Regarding oil, Rosneft and the Agency for Natural Resources and Energy concluded a Memorandum of Understanding on cooperation in May 2011, and they have been pursuing discussions with a course toward continuing to further upstream development in conjunction with Japanese firms. Furthermore, something that has already been achieving results is the developmental work in Eastern Siberia between the Irkutsk Oil Company and JOGMEC. They have already been carrying out drilling also, and the output for oil and gas has been proven.

In my work dealing with oil and natural gas in all parts of the world, the share which Russia constitutes has now become approximately half. I think that a relationship of trust sufficient for that has been achieved with Gazprom, and from this year similar cooperative relations with Rosneft will continue to grow. In the future also I hope we continue to further broad-ranging cooperation, extending to the issues of midstream and downstream development, in addition to upstream, and, moreover, of the development of technology. Furthermore, the mutually complementary relationship between resource-rich Russia and no-resource Japan should become the mainstay of Japan-Russia economic cooperation, and I hope we will continue to cooperate in the future.

[Translated by ERINA]