Russian Energy: Past, Present, Future

By Leonard L. Coburn*

Entering the first year of the second decade of the 21st century is a good time to assess Russia's energy past, present and future. The past years are characterized by the ascendancy of Vladimir Putin in Russian politics. His Presidency started on January 1, 2000 and lasted eight years, when he moved to the post of Prime Minister. Russia's fortunes changed dramatically during Putin's tenure as Russia's economy stabilized and grew significantly, reflecting the rapid rise of the oil and gas markets on which so much of Russia's economy is based. The global economic crisis starting in the latter part of 2008 and extending through 2009 had a disproportionate impact on Russia, as its economy faltered reflecting again its over-dependence on energy markets. The following is brief overview of the last ten years (first decade of 21st century) with a brief look into what we can expect in 2011.

Russian oil production showed tremendous growth early in the decade and then reached a plateau as it neared 10 million barrels per day. At the beginning of the decade, Russian oil production averaged 6.9 million barrels per day for 2001 (the first year of the new century and decade). By the beginning of 2010, Russian oil production crossed the 10 million barrels per day threshold. Growth was quite uneven, with annual average production surging in the early years between 500,000 and 700,000 barrels per day (2001-2004), and then tapering off to annual average increases of 200,000 barrels per day (2004-2007). This high growth was due to the significant increase in oil prices, (world oil prices increased from an annual average of about $26.00 per barrel in 2001 to a high of an annual average of $100 in 2008, declining in 2009 to an annual average of $62.00 in 2009, to the current oil price of about $90.00 per barrel), the application of modern Western technology to Russia's aging West Siberia oil fields, and the devaluation of the ruble lowering production costs. Russia's economy surged during this period as high taxes on oil production and exports contributed significant revenues for Russia's expanding budgets. In 2004, a new oil export tax was imposed. Marginal tax rates on oil exports exceeded 90 percent, adding to the burgeoning funds in the oil trust fund and allowing Russia to use these tax funds for its growing annual budgets. With oil reaching a peak of $147 per barrel in July 2008, future prospects seemed rosy. The precipitous decline in oil prices in December 2008 to about $35 per barrel in conjunction with the world economic crisis that started in September 2008 led to a shift in Russian oil production. The impact of lower oil prices and the high Russian oil export duty led to a decline in oil production starting in September 2008, lasting six months through February 2009. By March 2009, Russian oil production increased year on year and has continued to increase to the present.

As increases in Russian oil production slowed and reversed in 2008, Russia enacted tax incentives to encourage new production in high cost producing areas, especially in the Northern provinces and in East Siberia. New production from Sakhalin Island came on line in 2007-2008 masking the decline in Russia's old West Siberian oil fields. The combination of new incentives, Sakhalin production and a small number of new fields in East Siberia led to the marginal increases in Russian oil production during the remainder of 2009 to the present. As of September 2010, Russian oil production increased almost 41 percent since 2001.

Russian gas production did not fare as well since it grew by only 0.5 percent from 2001 to 2009 (last year available). Since Gazprom accounts for about 85 percent of Russian gas production, the industry's fortunes are tied strongly to Gazprom. Growth in gas production and exports to Europe, Russia's primary market, grew consistently from January 2001 until 2007. In 2007, a warmer winter in both Russia and Europe led to a decline in consumption and production. Russian production rebounded in 2008, although Gazprom's production hardly increased in 2008. Russian gas production in 2009 declined precipitously from 2008 (from 24.4 Tcf to 20.6 Tcf) because of the two week disruption in gas supplies to Europe due to the Russian-Ukrainian gas dispute in January 2009 (80% of European gas supplies transit Ukraine) and the sharp decline in European gas demand stemming from the economic crisis. Gazprom has been stretching production at its existing gas fields and has postponed investments in new gas fields in Yamal (Bovanenko) and offshore (Shtokman). As an interim strategy Gazprom buys large volumes of gas from Central Asia (66 billion cubic meters in 2008).

Russia's dominance in Central Asia is dwindling as Azerbaijan, Kazakhstan and especially Turkmenistan sought alternatives to Russia for selling their natural gas. In December 2009, Turkmenistan opened its gas pipeline to China. The opening of the pipeline was a wake up call for Russia. At the end of December 2009, Russian President Dmitry Medvedev was in the capital of Turkmenistan, Ashkabad,

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seeking to improve relations with Turkmen President Gurbanguly Berdymukhammedov. At the same time, Gazprom indicated that it had smoothed over its gas pipeline dispute with Turkmenistan stemming from an April explosion that halted all Turkmen gas exports to Russia. Gazprom's Alexander Medvedev said that it will resume purchases of Turkmen gas next year (meaning 2010). Gazprom also agreed to expand the Prikaspiiski pipeline running along the Caspian to Russia and to build the east-west pipeline linking eastern Turkmen gas fields to the Prikaspiiski pipeline route. The fear of losing Turkmenistan's natural gas market to China and possible western routes spurred Gazprom and Russia to renew its energy relationship with Turkmenistan. The open question is whether Russia's effort is too little, too late.

Russia is proposing to build new pipelines (oil and gas) to enhance its export opportunities or to bypass recalcitrant partners. The proposed Nord Stream natural gas pipeline to carry gas from Russia to Germany under the Baltic Sea is under construction. On the other hand, the South Stream pipeline that would carry gas across the Black Sea to Bulgaria and then into Central Europe still appears mired in problems including its astronomical cost and does not appear to be any closer to reality.

Russia is proceeding with its oil pipeline across East Siberia to the terminal at Kozmino, near the port city of Nakhodka, near Vladisvostok in Russia's Far East. The first phase of the East Siberian Pacific Ocean (ESPO), 1700 miles long, is complete from the existing West Siberian pipeline system connecting at Taishet in the Irkutsk region and extending to Skovorodino, 45 miles from the Chinese border. Transneft, Russia's oil pipeline monopoly, completed a pipeline connection to its border with China in order to connect with China's oil pipeline system.The Chinese have finished their part of pipeline construction. The pipeline will carry up to 300,000 barrels per day supplementing rail shipments of oil to China. This oil pipeline connection is part of the deal worked out earlier in 2009 between Russia and China in which China loaned Russia $25 billion for future oil deliveries. The remaining 1300 mile section of the ESPO pipeline is under construction and expected to be completed by 2012. Total cost of the pipeline is about $22 billion. Until the pipeline is completed to Kozmino, Russian oil will move by rail from Skovorodino to Kozmino, with Rosneft, TNK-BP and others planning to use this new port for oil exports to Far East customers.

The start of a new year almost invariably brings another energy crisis between Russia, Europe and its transit countries. In January 2006 and January 2009 Russia created crises in natural gas markets when it halted gas deliveries to Ukraine. Ukraine's natural gas pipelines, built during the Soviet era when it was part of the USSR, carry 80 percent of Russia's natural gas exports to Europe. Russian gas accounts for about 25-30 percent of European Union gas consumption and about 35 percent of its natural gas imports. Some European countries depend on Russia for most of its gas supply. A disruption in gas transit from Ukraine has serious repercussions throughout the EU and Europe. A gas disruption was averted in 2010 as Russia and Ukraine agreed on terms of a new gas agreement including market pricing. Serious economic problems exist in Ukraine due to the world economic crisis; it remains on IMF life support to prop up its economy. On January 17, 2010, Ukraine held a presidential election with Viktor Yanukovich emerging as the winner. Yanukovich is much closer to Russia and his policies have tilted Ukraine much more in the direction of Russia. As a result, the tension between Russia and Ukraine under the past presidency of Ukraine's reformer (Viktor Yuschenko) is gone. Russia and Ukraine are less likely to create problems in the gas sphere as in past years.

If a crisis was averted in Ukraine, Belarus rears up to present problems. On January 1, 2010, Russia cut off oil shipments through the Druzhba pipeline (Druzhba means "Friendship") that transits Belarus and provides about 10% of Europe's oil supplies. This stoppage is reminiscent of a similar dispute in January 2007, when Russia stopped similar oil shipments. Oil flows to Europe (primarily Germany and Poland) continued despite the January 1, 2010, stoppage, while supplies to refineries in Belarus were directly affected. The dispute involves crude oil exported to Belarus refiners that pay about one third of Russia's export tax rate due to the customs union and other agreements between Russia and Belarus. Surplus products refined in Belarus are sold in Europe at a lower price than Russian refiners to Russia's continuing annoyance. Russia wanted to raise tariffs for the Belarusian refiners after the tariff agreements expired on December 31, 2009 so that Belarus refiners would pay the same export tax rate as all others. The new tax could cost Belarus as much as $5 billon annually, more than 10% of its gross domestic product. On Monday, January 4, 2010, Russia resumed all oil shipments when Belarus threatened to cut off electricity to Russia's Kaliningrad region, a small Russian enclave sandwiched between Poland and Lithuania and adjacent to Belarus, where it gets its electricity. Negotiations between Russia and Belarus are ongoing. For the European Union, the stoppage came as an unexpected and unwelcome New Year surprise, despite the EU and Russia putting an early warning mechanism into place last year to avoid these kind of surprises.

For the future, Russian energy will continue to be an important part of Russia's domestic economy until it finds a way to diversify away from oil and gas. Russia is pulling out of its economic crisis assisted by higher oil prices. Oil production has stabilized and is increasing slowly surpassing the 10 million barrel per day level in late 2009 and headed for 10.2 to 10.5 million barrels per day by the end of 2010 due to increasing production from East Siberian oil fields. Natural gas prices are likely to increase in 2010 since natural gas contracts with European buyers are linked to oil prices with a six to nine month lag. If oil prices stay in the $80 to $90 range (or higher), expect European prices for Russian natural gas to rebound. Russia is keeping a careful eye on developments in Central Asia, its economic backyard, and is working to offset gains made by China and the EU. Russia is slowly moving forward with its bypass natural gas pipelines, with Nord Stream now under construction and expected to open this year. In oil, it is moving rapidly forward on its pipeline to the Far East which can give Russia another outlet for its oil, lessening its reliance on western oil markets. It also is working to complete oil pipeline bypasses to Belarus, eliminating another thorn in its energy picture.

As of January 2011, Russia's energy future is looking more stable. In oil, after almost a decade of rapid growth, its oil production is reaching a plateau of about 10-11 million barrels per day. Its future depends upon its ability to provide sufficient incentives for development to occur in East Siberia and its Arctic offshore. For the present, its policies appear to be working. In natural gas, Gazprom continues to delay investments in new production, seeking to buy gas from other countries or from other domestic producers. How long it can continue to play this game is an open question. Its delays are worrisome to its long term stability and to its ability to meet its long term export commitments.

Statistical Sources

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