

Russia's Putin Charts Nuclear Power Revival

by Rachel Douglas

Addressing Russia's Security Council Dec. 22, 2005 on "Russia's role in world energy security," President Vladimir Putin boasted about his country's position as the world's number one natural gas exporter and number two crude oil exporter—a status that fills Russian coffers, but is hardly the sign of a healthy economy, for a nation of 143 million people. But Putin also called attention to the prospects for renewed development of nuclear power, something that could mark a major shift within the Russian economy and have big implications for countries that would buy nuclear plants from Russia.

The activity of Rosatom, the Russian nuclear agency, in January, was every bit as dramatic as Russia's "gas war" with Ukraine, though the latter grabbed more headlines. Under the new leadership of former Prime Minister Sergei Kiriyenko, Rosatom presented bold plans to resuscitate the Russian nuclear industry, notably through cooperation with Ukraine, Kazakhstan, and other countries that have parts of what was the larger, Soviet nuclear power capability.

Then Putin, during his Jan. 31 annual press conference, spoke animatedly about a turn towards advanced technology-vectored industry as not only a good economic policy goal, but one that rises to the status of a "national idea," or mission-orientation, for Russia. "One of the key tasks we set ourselves is the *diversification* of the Russian economy, a move to *innovation-based* approaches," said Putin. A very important statistic from 2005, he added, is that out of \$121 billion invested in "fixed capital" (plant and equipment), only \$8.7 billion went into the oil and gas sector. "Everything else was for manufacturing, transport, agriculture, and communications. This shows that there appears to be a tendency towards innovation-based development—only a tendency."

The goal of doubling nuclear power output was enunciated already in the *Energy Strategy for Russia Until 2020*, issued in 2003. Industry expert Yuri Krupnov, author of a recently published project titled *Russia's Nuclear Doctrine*, commented to Pravda.ru on Jan. 11 that those plans have remained only on paper, until recently. With Kiriyenko's sudden appointment in November of last year (he had been Presidential Representative in the Volga Federal District), things got moving.

In interviews published over the past two months, Kiriyenko laid out his intentions. Whereas Russia's 31 nuclear reactors account for 16-17% of the country's electricity generation, construction of 40 new reactors will bring that share

up to 25% by 2030. "We need to build two nuclear reactors per year, beginning in 2011 or 2012," Kiriyenko said. Rosatom will become a joint stock company, in order better to handle large investments, but will remain under government control. Putin confirmed these figures at a Jan. 20 meeting with Kiriyenko, and repeated them at his press conference. Upgrades of existing capacity are also scheduled, such as replacing the reactors at the Leningrad Nuclear Power Plant, commissioned in the 1970s; on Jan. 26, Putin ordered Kiriyenko to go ahead with that project.

Soviet Power Industry

Coordination with Ukraine and Kazakstan will be crucial. Upon the break-up of the Soviet Union in 1991, Moscow moved to preserve the integrity of its space program, securing a long-term lease on launch facilities in Kazakstan and arrangements with non-Russia-based manufacturers of key equipment. There were not similar efforts for the nuclear industry, which was still reeling from the 1986 Chernobyl accident. Putin and Kiriyenko are working to redress the resulting fragmentation of the industry, 20% of which is outside Russia. Half the uranium for Russian nuclear power is imported. While in Kazakstan for the inauguration of President Nursultan Nazarbayev in January, Putin met with Nazarbayev and with Ukrainian President Victor Yushchenko about nuclear cooperation.

Russian state companies have a 45% stake in a new uranium mine in Kazakstan, the *Moscow Times* reported Jan. 13. Kazakstan is expected to use its earnings to finance new Russian-built nuclear power plants in Kazakstan.

On Jan. 21, Kiriyenko flew to Kiev for talks with Fuel and Energy Minister Ivan Plachkov and Olena Mykolaychuk, chairman of the State Committee for Nuclear Regulation of Ukraine. Ukrainian industry makes the turbines for Russian nuclear power plants. The two sides signed a protocol on coordinated nuclear fuel pricing policies, collaboration between nuclear industry executives and scientists, a Feb. 10 meeting on uranium mining, and a June 2006 conference for presentation of products by Ukrainian and Russian nuclear industry firms.

Kiriyenko and others have raised several other potential novel elements. First, the new head of Rosatom wants Russia to *export* as many nuclear plants as it builds at home, or even more: 40 to 60 plants overseas. Kiriyenko sees Asia as a major market. Second, Russian media leaked a report that officials of the government-run natural gas monopoly and top export earner, Gazprom, believe it could profitably invest in Russia's nuclear power expansion.

And on Jan. 25, Nikolai Sevastyanov, head of the Energiya Russian Space Company, outlined an ambitious plan to obtain fuel for the next type of nuclear power: thermonuclear fusion. He said Russia should mine helium-3 (which is rare on Earth) on the Moon. Putin at his press conference supported this perspective, too.