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## U.S.-Russia Commercial Energy Summit

In May 2002, U.S. president George W. Bush and Russian president Vladimir Putin announced a new U.S.–Russian dialogue. This "dialogue" represents an unprecedented political alliance, friendship, and economic partnership between the U.S. and Russia at the highest levels of government, creating opportunities for strengthening ties and developing many spheres of cooperation. Among the many important strategic areas for potential cooperation between the U.S. and Russia is the energy sector.

In a follow-up to the May 2002 announcement, Washington and Moscow convened the U.S.-Russia Commercial Energy Summit on October 1–2, 2002, in Houston, Texas. The main plenary sessions for the meeting were held at the James A. Baker III Institute for Public Policy. The meeting was aimed at the development of Russian/American joint strategies for cooperation in the energy sector. This inaugural summit brought together senior government officials and corporate executives representing more than 70 American and Russian energy companies. The session led to the creation of a commercial working group to focus on key issues such as market development, strategic reserves, investment, regulations, education, and problem solving.

The summit laid out a framework and road map for the cooperative effort between American and Russian firms in the energy sector. Among those who spoke on the importance of the new partnership were Russian energy minister Igor Yusufov, Russian economic and trade minister German Gref, U.S. commerce secretary Donald Evans, and U.S. energy secretary Spencer Abraham. The summit was organized by the U.S. and Russian governments, the U.S. Energy Association, the American Petroleum Institute, American Chamber of Commerce in Russia, U.S.–Russia Business Council, the City of Houston, and the Baker Institute.

In recent years, both the U.S. and Russia have been seeking to enhance their national energy agendas and recently have found that their interests are dovetailing, raising the importance of the Energy Summit.

Top officials from both nations emphasized the strategic importance of this cooperation throughout the session. Presidents Bush and Putin, during a meeting they held in St. Petersburg on November 22, 2002, also made a point to highlight the first Commercial Energy Summit as a key step in the energy dialogue launched by the leaders earlier in the year. In a joint statement, the presidents said, "The Houston Summit created new avenues for dialogue and cooperation on energy issues and led to decisions on concrete new investment projects and programs and business arrangements."

In the keynote address that closed the summit, James A. Baker, III, former U.S. secretary of

state and honorary chair of the Baker Institute, discussed the mutual benefits of closer American–Russian cooperation in developing Russia's energy assets. Baker explained, "The commercial advantages to cooperation between the U.S. and Russian energy companies is really quite obvious, but the commercial stakes—even though they are huge—are only part of the broader economic advantages that will flow from closer U.S.–Russian cooperation in the energy area."

Continuing, Baker noted that "the early and efficient development of Russia's oil and gas resources also will represent a substantial economic boon to Russia in terms of jobs, generating economic growth and bolstering Russia's balance of payments. And, of course, to the extent that American companies are involved, it will benefit American businesses and consumers through lower and steadier petroleum prices. But, not least and perhaps most important of all, the full development of Russia's immense potential by increasing diversity of international supply will reduce considerably the risk of instability in a world petroleum market that remains dominated by the volatile Middle East."

The Bush administration has been championing the importance of developing more diverse energy supplies as a means of both national and global energy security especially in light of the new geopolitics created in the aftermath of the September 11, 2001, attacks on the U.S. The U.S. administration would like to prevent future oil price shocks and lessen dependence on supplies from the unpredictable Middle East.

In stressing Russia's potential as a leading global oil and gas supplier, Russian energy minister Igor Yusufov, in his keynote address, noted that his country currently controls about one-third of the world's gas reserves and that in 2001, Russia experienced a 7 percent increase in oil

development—a growth rate he expected would be matched in 2002. The Russian minister predicted that Russian oil production would expand to 8 million barrels per day (b/d) within the next few years, based on new investment and new technologies.

Russia and the newly independent states of its southern flank are ranked second in undiscovered oil potential after the Persian Gulf, holding about 27 percent of the world's total. The region ranks first globally in undiscovered natural gas potential and will be an important supplier of oil and gas to Europe and Asia. Russia itself accounts for 13 percent of the world's energy production, third after Saudi Arabia and the U.S. In 10 years, the Caspian Basin countries near Russia could represent an additional 3 to 4 percent of world oil production, while Russia itself is hoping to see its crude output rise from over 7 million b/d in 2001 to over 10 million b/d by the end of the decade.

Russia's hydrocarbon supplies are badly needed by the expanding world economy, whose oil and gas requirements will continue to grow significantly in the coming decades. An improvement in the Russian oil and natural gas industry is in the interest of not only the U.S., but also other significant players such as the European Union (EU), Japan, South Korea, and China, since it would add to world supply and thereby lower energy costs.

U.S. officials stressed the importance of Russian energy supplies to the global economy. "All of this [cooperation] enhances global energy diversity and global energy security goals that both of our countries share," said U.S. commerce secretary Donald Evans in his opening remarks to the summit. Evans emphasized, "Global energy security is one of the greatest challenges we face today.... It is recognized as one of the most important priorities of President [Bush's] national energy plan."

Commerce secretary Evans stressed that both the U.S. and Russia play a pivotal role in global energy markets. The U.S., for one, he said, "is the largest producer and consumer in the world and is also the world's largest net importer of energy." As for Russia, it has the advantage of being well positioned because, "as well as being the third largest [energy] consumer in the world, it is also one of the world's largest exporters, second to Saudi Arabia," Evans said. He pointed out that Russia is not only blessed with the largest natural gas reserves in the world, but it also is the global leader in gas exports. Noting that the U.S. Commerce Department has recognized Russia as now having a market-based economy, Evans said, "Its market economy is an important step leading to expanded trade and investment for Russia."

Washington looks to Russia now as a potentially reliable supplier of crude to the U.S. market, not only helping it with energy security by diversifying American imports and satisfying its own growing demand, but also being mindful that larger volumes of Russian crude and gas entering into the global energy market will help lead to international price stability.

U.S. energy secretary Spencer Abraham elaborated on this point, observing that "the challenges of energy security and environmentally responsible economic development enter into every calculation of every nation." Stressing that there are similarities in the approach between U.S. and Russian national energy plans, Abraham said, "We're both on the verge of working toward completion of energy legislation." In terms of the American national legislation, the U.S. energy secretary stated, "We emphasized in our plan the need to diversify our energy supplies, develop more trading partnerships, and expand opportunities for imports."

The U.S. national energy plan, as advocated by the Bush administration, is pending approval

in Congress. The plan, developed by Vice President Dick Cheney's cabinet-level task force, calls for less U.S. reliance on Middle East energy supplies by cultivating domestic production and alternative sources and strengthening ties with allies that are producers, including Canada, Mexico, and Russia.

Russia clearly sees further development of its crude oil and natural gas sectors as an important element of its future economic growth. Russian energy minister Yusufov echoed his American counterpart's observation that there was a great deal of similarity in the two nations' energy plans. "They even complement each other because we do have some undeveloped resources in the Russian Federation that can become very reliable sources of energy supplies for the United States," Yusufov explained.

Turning to the importance of American investment in his country's energy sector, the minister noted, "The operating of our existing fields and operating fields with difficult resources [to recover] will require major innovation in the industry, which in turn will require major investments. Here is an opportunity to involve advanced technology, which is being developed in the United States.... The major success in providing political stability in the Russian Federation makes it a reliable partner to the U.S."

However, the opportunity to participate more proactively in Russia's oil and gas industry is not without many challenges. U.S. private sector attempts to become involved in Russia's energy sector during the 1990s had mixed results. Experts say Russia needs to overhaul its legislative and tax system if it is to attract ample private Western investment in both existing Russian oil and gas producing areas as well as in the more technically challenging and economically risky frontier areas. For Russia to increase its global role as a leading crude and gas supplier and tap

into the U.S. market as well as other emerging markets, American and Russian energy firms must also concentrate on expanding the country's export infrastructure, which has, to date, limited Russia's ability to move beyond its status as a regional exporter to Europe.

In the summit's initial meeting, the dialogue identified problem areas that are blocking the full potential for commercial cooperation and investment in Russia's energy resources. Discussion focused on the two governments' roles in solving legislative impediments. Identifying policy frameworks to remove these obstacles will be a challenge facing both countries and their private sectors in the coming years, particularly in Russia where there are both advocates and opponents to overhauling the contractual agreements and tax systems that have bedeviled foreign investment in the country's energy sector to date.

If concrete plans of the Russian oil firms and their Central Asian counterparts come to fruition in the coming years, rising oil exports from the former Soviet Union (FSU) could grow by 2 million b/d in the next five years and move closer to rivaling those of Saudi Arabia. Traditionally, Russian oil exports have been bound for Europe and have not competed with Middle East oil exports to the U.S. and Asia, but this trend is changing. Persian Gulf suppliers have warned that growing Russian exports could lead to a price war, particularly if markets cannot easily absorb the extra volumes.

Russia's energy industry is increasingly privatized, leaving the fate of future production in the hands of private companies. While oil production in Russia involves more than 200 companies, approximately 90 percent of Russian oil is being produced by 10 vertically integrated multinational firms, the Russian energy minister said. Minister Yusufov explained that the picture for Russian natural gas production is less diversi-

fied, as 90 percent of Russia's gas production is controlled by state giant Gazprom. In 2001, total gas output was 595 billion cubic meters (BCM) with a forecasted 3 percent increase in 2002. The Russian energy minister stated that his country's gas export capacity could be raised by 40 percent by bringing a new gas pipeline into operation.

Looking at international and domestic demand forecasts, Yusufov suggested, "There is a possibility that by the year 2010, Russia will produce approximately 650 BCM/Y; according to the Strategic Gas Plan for the year 2020, this volume could reach 700 BCM/Y." He added that Russia is looking to the Yamal area in the northern region for further gas exploration. The Russian energy minister noted that more than half of Russia's undeveloped energy resources lie in the remote areas of the Russian Federation, some of them above the Polar Circle.

Russian officials addressing the conference made clear that Moscow intended to diversify the destinations for its oil and gas exports. This geographical expansion of Russia's energy exports is of particular importance to Moscow for another more economic reason: Russia's primary market for oil and gas is Western Europe, which is expected to see limited increases in its demand in the coming decades, prompting producers to look elsewhere for new opportunities.

Compared to the anticipated U.S. growth in crude imports—from 9.3 million b/d in 2001 to 12.3 million b/d in 2010—Europe will see a much slower growth in imports, from 9.3 million b/d in 2001 to just 9.6 million b/d by the end of this decade, Tyumen Oil Co. president Simon Kukes told the summit participants.

Kukes explained the marginal increase in European imports is due to "the taxation system in Europe, which will not allow people to consume more gasoline." In addition, he noted that it is in Russia's interest to pursue new markets, as rising output from Kazakhstan and Azerbaijan will compete with Russian crude in its main European market.

Energy contributes an important and developing link between Russia and Europe. Russia currently exports between 2 and 2.5 million b/d of oil and an annual 136 BCM of natural gas to Europe, including the Ukraine, meeting about 20 percent of Europe's gas needs and 16 percent of its oil supplies. In October 2000, President Putin signed a strategic energy partnership with the EU that will allow natural gas exports to Europe to rise to 200 BCM by 2008. Russia is one of Europe's cheapest suppliers, given the relatively low cost of transportation, so economic motivations are clearly central for both Europe and Russia for this energy trade.

Kukes pointed out that Russian firms must be willing to take financial losses in the short term as export routes are being studied if they want to gain a foothold in the U.S. market. He reflected that it costs about 45 cents a barrel more for Russian crude to be shipped to the U.S. from the Mediterranean, but "when you need to explore new markets, sometimes you must bite the bullet for the first couple of years and take some loss." He said his company was continuing to explore export routes to the U.S. and noted that a 120,000-tonne cargo of Russian crude was sold in September 2002 to U.S. refiner Koch, with part of it dedicated to the U.S. Strategic Petroleum Reserve.

Kukes noted that there were several ways that Russian crude marketing could be improved, including encouraging long-term Western investment in the Russian oil fields. He suggested that a U.S. firm like ConocoPhillips, for example, could come in and produce oil, subsequently developing a mechanism to supply this oil to its own refineries in the U.S.

Another method for marketing improvement is to develop new pipeline routes and deep-sea

ports. The Tyumen president mentioned that there were several pipeline projects under investigation: a China route, one to Far East Russia, and a third, which is in early stages, to the north for export from a deepwater port to be constructed at Murmansk. He contended that within several years, if these latter pipeline options are pursued, exports to the U.S. could be bumped up by as much as 600,000 to 650,000 b/d.

Beyond the U.S. market, China could become another important outlet for rising exports of Russian oil and gas. Beijing sees Russia as a key future hydrocarbon supplier with the further development of Sakhalin resources, and there has been a recent political push both in Moscow and Beijing to facilitate growing cooperation between Russian and Chinese firms in oil and gas investments and trade. A similar warming of relations on energy trade issues has taken place between Moscow and Japan. The oil and gas resources of the Sakhalin Islands are expected to be a major energy supply for Japan and China and a key means for both Tokyo and Beijing to diversify from dependence on the Persian Gulf. One pipeline project under examination is a \$1.7-billion Yukos/PetroChina line Angarsk in Northeastern Russia to Daging in Northeastern China, which could pump as much as 600,000 b/d of Russian crude to the Asian giant within about five years.

The Russian oil industry is at a crossroads in its national energy plan, with legislation covering amendments to the production sharing agreement (PSA) law stalled in the state Duma, which has been notoriously slow in moving on sensitive issues. Although a framework for PSAs was laid out in a presidential decree in 1993 and subsequently passed into law in December 1995, detractors say the present law contains many inconsistencies that hinder effective enforcement.

Western investors are keen to see the amendments enacted as a means of ensuring that the overall level of taxes remain stable during the entire period of the individual PSA's validity. This would insulate the investor from frequent and unpredictable tax changes that have typified the foreign investment climate in Russia over the past decade.

The issue of amending the existing PSA legislation is clearly one that not only pits American investors against Russian energy firms and bureaucrats who benefit from maintaining the status quo, but Russian firms against each other. In addressing the summit, ConocoPhillips chairman Archie Dunham acknowledged that Russia had enacted its PSA law in the mid-1990s, but "for the PSA model to work in Russia. Russia's tax laws and other regulations need to be brought into harmony with the new law on PSAs.... The fact remains that until all of the components of the legal framework are in place in Russia, PSAs [in their current form] will not provide the stability and security that are the whole reason for using this type of fiscal framework in the first place."

Dunham cited the specific example of the Polar Lights project that partnered Conoco in a joint venture with Russian firms Arkhangelskgeoldobycha and Rosneft. The project—the first Russian–American joint venture to develop a new oil field in Russia—began production in 1994 from the harsh Arctic tundra of the Nenets Autonomous Okrug in the Timan-Pechora Basin and recently passed a production milestone of 75 million barrels from the Ardalin field.

But, according to Dunham, the project, which was not covered under a PSA agreement, has been only "marginally profitable." He noted, "We successfully completed Polar Lights, but we had to contend with more than harsh weather conditions and we had to step through more

than delicate ecological systems. We had to live with tariffs that changed almost on a daily basis, tax laws that seemed to change every month, and regulations and export volume allocations, all subject to sudden and unpredictable change."

Russian economic trade and development minister German Gref appeared to endorse Dunham's view on PSAs, noting in his opening address to the summit attendees that "we have to depart from the administrative system that is presently in existence. Investors have to be able to get maximum guarantees in order to be willing and ready to provide substantial investments in prospecting, opening up those deposits, and building infrastructure."

Furthermore, he said that "the growth rate in the [Russian] oil output will be dependent on the economic and market situation, and on how well we will be able to implement the legal rights of the investors." Russian state firm Rosneft vice president Alexey Kuznetsov concurred on the need for effective PSAs, telling summit attendees that "the PSA legislation is necessary in Russia, and so far, it seems to be the only arrangement that can provide safety and security to investors." He continued, saying, "In my opinion, provided we develop certain mechanisms, our countries can become the international guarantors of energy security... so I believe that new [Russian] regulatory regimes are inevitable."

However, there is clear opposition by some major Russian energy firms to the idea of adopting PSAs as the legislative model for Western firms looking to invest in oil and gas projects in Russia. Presenting the contrary approach at the summit, Yukos Oil Co. chairman and CEO Mikhail Khodorkovsky cited several reasons why Western investors are mistaken in pursuing a revised PSA framework as their only option for working in the country.

Khodorkovsky explained that many American companies have missed market opportunities

and experienced increased competition because they insisted on waiting for PSA legislation. He noted that the 4-billion-barrel Priobskoye development project in the Northern Territories in Siberia that had partnered Yukos with then U.S. firm Amoco was delayed indefinitely due to intransigence from the U.S. side. According to Khodorkovsky, "for five to seven years, [Amoco] continued to negotiate in hopes that the PSA regime would be put into effect. If, in 1998, the companies had started to work on the Priobskoye field under the national tax regime, today in 2002, it would already be getting pure net profits." Instead, BP, which took over Amoco, pulled out of the project in March 1999.

The Yukos leader also criticized PSAs for bringing "a quantum increase in corruption." He explained, "Everybody knows how to count numbers, and the advantages that PSA participants get are valued by those who make the decisions—government officials and the state Duma—and if American firms don't pay bribes directly, it means that the Russian partners are paying the bribes." Finally, said Khodorkovsky, the insistence on PSAs by U.S. investors leads to a neutralization of efforts to stabilize the tax regime. However, existing PSAs, he stressed, "in all cases should be retained. What has already been signed needs to stay in effect."

The Yukos CEO pointed out several other areas in which he felt U.S. investors were miscalculating when eyeing Russian opportunities, including their reluctance to utilize Russian-made equipment in the field and their general overestimation of Russia's investment risk. "When we see Russia at 70th, 80th, sometimes even 120th place in the ratings of investment attractiveness, we understand that Western investors are deluding themselves. Russia is a quite stable place," Khodorkovsky said.

For his part, LUKOIL president Vagit Alekperov told the summit participants that clos-

er U.S.-Russian cooperation has meant "Russian firms have started to assign higher priorities to projects that are geared toward the American market, provided there is a flow of private investment of American capital." Alekperov pointed out that while oil extraction from the North Sea, the Gulf of Mexico, and Canada will decline and future development in those areas will tend toward costly, high-risk deepwater exploitation, the Russian oil industry is on the rise.

Russian firms have been able to marshal capital on their own to revive the Russian oil industry. According to Alekperov, "it is expected that by the year 2010, Russia's oil production will reach 10 to 12 million b/d." He stated that Russia's oil deposits, audited by international rules, amount to around 76 billion barrels, which he said was about 60 percent higher than the commonly accepted estimates. However, "through the expansion of fields in the North Caspian, Sakhalin, and the North Arctic Sea, indications are that the total deposits of oil are probably 140 billion barrels," Alekperov said.

While Russian output and production from FSU countries like Kazakhstan are expected to boom in the coming years, the problem will be in export capacity. "This can be a threatening factor, so it is important to implement pipeline projects soon," the LUKOIL official said. He noted that the Caspian Pipeline and the Baltic Pipeline networks are being expanded and his company is building out its own infrastructure in Russia.

The 284-mile Baltic Pipeline System (BPS) involves the laying of a new main pipeline from Kharyaga in the Arkhangelsk region to Usa in the Komi Republic, the reconstruction of the Usa–Ukhta, Ukhta–Yaroslavl, and Yaroslavl–Kirishi pipeline segments, the construction of a new pipeline from Kirishi to Primorsk, and an oil refinery in Primorsk on the Gulf of Finland.

The first stage of the BPS, with an export capacity of 240,000 b/d, became operational in December 2001. The BPS, which will export most of the oil from the Timan-Pechora and West Siberian oil provinces as well as some oil from Kazakhstan, gives Russia a direct outlet to northern European markets, allowing the country to reduce its dependence on transit routes through Estonia, Latvia, and Lithuania. Use of the BPS, which is fully owned and operated by Transneft, should bring the Russian government \$100 million per year in fees, as well as allow Russia to save up to \$1.5 billion each year in transit tariffs. Further development of the BPS is to be conducted by Rosneft and Surgutneftegas, with the goal of bringing in U.S. firms.

As Russian export infrastructure expands, Russian oil firms are expected to be able to supply at least 13 percent of U.S. oil imports, up from the less than 1 percent currently supplied now. However, the further development of pipelines in the Caspian and Baltic Seas will still not compensate for export capacity shortage. According to Alekperov, restrictions in the Bosphorus and Danish Straits make it impossible for Russian oil to be delivered by major tankers.

"In order to reach American markets, we need a transportation route that has fewer investment risks and could maintain competitive transportation rates. We need to build a pipeline from Yaroslavl [in Central Russia] to Murmansk," the LUKOIL head said, pointing out that the Murmansk terminal "is not freezing the year round, and it can receive oil tankers with dead weight of 300,000 tonnes," unlike the rest of Russia's ports, which are mostly in shallow waters.

The proposed \$1.5-billion project to build a pipeline and deepwater, year-round port at Murmansk, in the north of Russia, could be used to export oil in very large crude carriers (VLCC) to distant markets such as the U.S. The port

would replace current makeshift operations where Russian companies such as Yukos have been loading transatlantic VLCCs in the Mediterranean to sell in the U.S. The oil is currently brought to the Mediterranean by smaller vessels shuttling from the Black Sea. The Murmansk route across the ice-bound Arctic to the U.S. would be considerably shorter than the distance from the Persian Gulf to the U.S.

A feasibility study of the port project, which is slated to handle up to 1 million b/d of exports and involves building both the port and a 935-mile pipeline leading to it, is being financed by four of Russia's biggest energy firms, LUKOIL, Yukos, Sibneft, and Tyumen. The project, which could be completed by 2005 at the earliest, is to receive U.S. Ex-Im Bank support.

ChevronTexaco vice chairman of upstream Peter Robertson was upbeat about the ability of Russian companies to both resurrect their energy sector and expand upon it. Said Robertson, "In the past decade, we've seen the kind of explosive growth that marked the start of the Russian oil industry.... What we're seeing is nothing less than a renaissance in Russian oil." And the future is even brighter, he contended. "We know that few countries can match Russia's reserves and no country can match Russia's unique position standing astride two continents," Robertson said.

Noting that the recent impressive growth in Russian energy output has been largely based on turning around production from Western Siberia, the ChevronTexaco official claimed that "the next big step for Russian oil and gas development is clearly going to be in the frontier areas, including Sakhalin and the Arctic Shelf." There exists a substantial amount of potential for developing further West Siberian output, which Robertson asserted would continue to bring in a steady flow of cash for years to come. A case for that development under the existing

tax and license regime could be made, given that infrastructure already exists, reserves are accessible, and revenue can be generated relatively quickly.

However, in the frontier areas—such as Sakhalin and the Arctic Shelf—everything is different because of the complexity of the work, the high risk, and the high cost, the ChevronTexaco vice chairman noted. "Huge commitments must be made up front before there is any meaningful revenue.... To introduce such an investment requires clear terms and conditions, a commitment that a fiscal regime in place during an investment phase remains in place during the revenue stage and that some costs can be recovered with confidence," Robertson said. He suggested that PSA legislation, while having a limited application over the next few years, could provide the necessary stimulus for opening up the challenging frontier areas to exploration.

One such prospect, he said, is the Kirinski block in Sakhalin III, where ChevronTexaco has a 33 percent interest in partnership with Rosneft and ExxonMobil. According to Robertson, below those 150 meters of water lie an estimated 500 million tonnes of oil and gas equivalent. "Looking beyond the PSAs, I am encouraged by the moves to reform the Law on the Subsoil. If that legislation can be developed successfully, it will be a natural successor to PSA and will eventually make PSA-type contracts redundant. However, in the near term, PSAs are necessary," Robertson said.

ChevronTexaco stated in early October 2002 that the company was considering investing up to \$9 billion in Sakhalin II if estimated reserves prove satisfactory. U.S. energy secretary Abraham noted that the projected outlay by U.S., Russian, Japanese, and Indian firms in the multiple Sakhalin phases of as much as \$15 billion makes this project the largest investment in Russia.

China hopes to be a primary beneficiary of the supplies from new investments by Western firms at Sakhalin and from other new field developments within Russia. Sakhalin is seeing robust progress, with ExxonMobil having finalized its multibillion-dollar investment project in late 2001. Initial oil output of 160,000 b/d by 2003 is expected to grow rapidly to 250,000 b/d from the Chavyo field alone. A related natural gas pipeline plan involves some 9.5 BCM/Y of exports to Japan and potentially Korea and China.

Royal Dutch/Shell Group also has a major project slated to come on line in Sakhalin II that will expand oil production from the current 15,000 b/d to 120,000 b/d by 2006. The Shell plans involve the construction of the largest liquefied natural gas (LNG) plant in the world, at 9.6 million tonnes per year, to be built at Prigorodnoye in south Sakhalin, which is to be the first LNG plant built in Russia. So far, the Shell consortium's exports have been dedicated to China, Japan, Korea, and the U.S. Within the next four to five years, Russian supplies to East Asia from Sakhalin fields under current development are likely to provide upwards of 500,000 b/d of incremental supply.

Moreover, new areas are now under discussion for development by Western and Russian firms, including BP and Rosneft's joint operating company, which will explore for oil and gas in the Sakhalin IV and V blocks starting in 2004. There is an estimated 3.53 trillion cubic feet (TCF) of gas in the Astrakhanovsky block in Sakhalin IV, which will require some \$2.6 billion to develop, while the East Schmidtovsky blocks hold an estimated 4.4 billion barrels of oil and 21 TCF of gas. A strategic investor is also being sought for the Sakhalin 6 zone held currently by Alfa Eco.

Beyond Sakhalin, there are other prospects in Eastern Siberia, where Yukos, the Russian firm holding perhaps the largest potential reserves in the area, is already in discussion with CNPC/Sinopec on joint projects. Yukos holds what it claims are 11 billion barrels in the Yurubcheno-Takhomskaya zone in Eastern Siberia in the region of Krasnoyarsk. It has a development plan to spend \$1.7 billion on 2,300 miles of pipeline to bring oil to the market. Yukos and Russian pipeline company Transneft are vying for the pipeline rights, and it may be that two lines, rather than a single one, will be built.

ConocoPhillips chairman Archie Dunham noted that one area of great interest to his company is in the Timan-Pechora region in the Barents Sea, where the U.S. firm has been working with LUKOIL and Gazprom. Stressing that fields in the Northern Territories are believed to have reserves in excess of 1 billion barrels of crude and 1 TCF of gas, Dunham said that "estimates indicate that these resources could directly and indirectly contribute \$25 billion to Russia's economy over the life of the project." The ConocoPhillips chief suggested that Timan-Pechora rivals the North Sea and Alaska in terms of remaining reserves.

Another good example of the future promise of this region, according to Dunham, is the Shtokman gas project, in which ConocoPhillips is teamed with Gazprom to develop this giant field in the Barents Sea. Dunham said, "The Shtokman field will be one of the next major projects to maintain Russia's position as a leading supplier of natural gas to the world economy." While full development of the Shtokman field will require \$20 billion, the project is anticipated to generate some \$200 billion in revenue for Russia over its 50-year lifetime.

One novel idea for U.S.-Russian energy cooperation that Russian government and industry officials are broaching is for the two nations to establish an international strategic stockpile of

Russian crude that could be used to serve countries that aren't currently able to amass strategic stocks, providing for more oil market stability in times of crisis. The Russian stockpile would be used to supply markets during times of market emergency and to dampen price run-ups.

Tyumen president Kukes, in fact, addressed this subject at the summit, calling for the creation of a U.S.-Russian Strategic Energy Reserve for third-world countries, notably in Asia. "The idea is that the U.S. and Russia would create a strategic partnership in which Russia would supply crude and the U.S. would provide some form of financing, and third-world countries who are willing to hold these strategic reserves would pay for storage and call options, unless they use the crude," Kukes explained. Of course, if these countries tap into the reserves they are holding, then they would repay the banks, he added. Kukes pointed out that there are several existing storage bases that would benefit, including those in Saldanha Bay, South Africa; Singapore; and Nova Scotia, Canada, where there is a base already set up to accommodate Urals-quality crude.

The U.S.-Russian Commercial Energy Summit speakers all stressed the significance of convening such a historic event. The consensus was that one of the key hurdles that must be overcome is the existing commercial framework in which foreign companies operate in Russia's energy sector.

Without reforming the weak PSA legislation currently in place to guarantee U.S. firms a consistent and fair fiscal regime throughout the investment, development, and revenues phases of a project, American companies may decide to pass on even the less commercially risky opportunities in Russia. As ChevronTexaco's Robertson pointed out, "PSAs have the ability to attract large amounts of capital that not only can open up the frontier but will build infrastructure

that will facilitate development of Russia's Continental Shelf." However, as evidenced by other viewpoints presented at the summit, there is clear resistance within the Russian energy sector elite and parts of the Russian government to changing the status quo.

In his concluding remarks, U.S. commerce secretary Evans stressed that while the summit could indeed be deemed a success, "we have a long way to go and we have great challenges and responsibilities in front of us." He added, "You cannot increase economic development in this world without a steady, stable, secure, and diverse dependable supply of energy. The world will look to these two countries right now to provide the leadership in that arena."

Evans also stressed Russia's growing role in the future in terms of gas supplies to international markets. "Heretofore, natural gas has been confined to continents, because that was the only way you could transport it effectively or economically. We're rapidly moving into a world where natural gas will be moved around the world, which is why Russia will play such an important role in providing energy supplies in the years ahead," the secretary said.

ConocoPhillips chairman Dunham warned that time is of the essence for American and Russian firms to move forward on crucial energy projects that will benefit both nations. Said Dunham, "Incremental investment will sustain near-term [Russian] production, but it isn't enough to create a sustainable future. Russia will experience a decline in production by the end of the decade if new large reserves are not brought on line in the next few years."

He pointed out that major projects cannot be developed quickly, as they require negotiation and many years of construction. "This means that negotiations need to be finalized soon and PSAs quickly approved.... Introducing effective PSAs in Russia means \$40 billion in direct invest-

ments and tens of thousands of new jobs for the Russian people," he concluded.

Russian energy minister Yusufov, in his own concluding remarks, noted that "we made a uniform conclusion [at the summit] that companies from our countries must work together to resolve this problem of world energy market stability by increasing supplies and by participating in joint projects, both in Russia and in thirdworld countries, where knowledge and experience of our specialists will be out to use. When the transportation network is established and expanded, Russia will be able to regularly supply oil and oil products to the American market." Furthermore, Yusufov said, "We invite American companies and financial institutions to support implementation of such projects.... We await specific proposals from them."

Earlier in the summit, both U.S. energy secretary Abraham and Russian economic trade and development minister Gref emphasized that while their respective governments can do much to pave the way for closer cooperation between American and Russian firms in order to further develop Russia's energy sector, the bottom line is that it is up to the private sector in both countries to follow through.

Said Abraham, "To succeed, the U.S. and Russian governments do have an important role to play. Our job is to create the framework of laws and rules that will allow our companies to form partnerships with confidence in the security of the arrangements, including the sanctity of contracts." On his part, Gref told summit attendees that "our government will do our best in order to facilitate projects that you would point out as the most attractive and most efficient and be assured that they will be supported by our government, such as developing exports to the U.S. market and to other developing markets."

The summit concluded with the signing of a joint U.S.-Russian communiqué stressing the

importance of continued cooperation in the energy area and the creation of a commercial working group that would meet throughout the year to recommend next steps for the U.S.-Russian initiative. A second summit is being planned in Moscow for 2003.

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