

# Striking a New Deal

## Cooperation Remains Essential

IN THE SPRING ISSUE OF *PACIFIC RUSSIA OIL AND GAS REPORT* I EXAMINED THE CAMPAIGN AGAINST THE FOREIGN SHAREHOLDERS OF THE SAKHALIN-2 PROJECT THAT ENDED IN GAZPROM CLOSING A DEAL ON APRIL 18, 2007 FOR A 50% PLUS ONE SHARE CONTROLLING STAKE IN THE PROJECT. THE FOREIGN SHAREHOLDERS HAVE REDUCED THEIR HOLDINGS BY 50% AND GAZPROM WILL PAY A SUM OF \$7.45 BILLION.

Gazprom now wishes to acquire the natural gas production from Sakhalin-1, where ExxonMobil is the operator, to expand Sakhalin-2. At the time of writing, the Sakhalin-1 project is subject to inspection by the Ministry of Natural Resources (MNR), the same process that was used to lever Gazprom into Sakhalin-2 on favourable terms. Gazprom and ExxonMobil are said to be in discussions about Sakhalin-1's gas phase. Further, a field in East Siberia, TNK-BP's Kovytko gas field, is also in jeopardy as the MNR is threatening to cancel the project's license because it has failed to achieve the level of production stated in the original agreement. However, this is because Gazprom has blocked the construction of a pipeline to

China that would provide the commercial rationale for increased production.

In the last issue I suggested that the pressure currently being exerted on the international oil companies (IOCs) by the Russia state is a process of re-adjustment that is placing the state champions, Gazprom and Rosneft, in a controlling position in the major projects with foreign involvement. I also suggested that once control was asserted a new deal would be struck with the IOCs. While, the new rules of the game have to be sufficiently attractive for the IOCs to invest, the reality is that oil majors are running out of places to go and may have to adjust their expectations. Clearly, the Kremlin feels that it has all the trump cards and can drive a hard bargain.

Here it is instructive to place recent events in Russia in a global context. A recent article by Vikas and Ellsworth in the *Oil and Gas Journal* points out that in the 1960s, 85% of the global oil and gas reserves were fully open to IOC's equity participation, 14% was held by the Soviet Union, and the national oil companies (NOCs) controlled less than 1%. Today, they maintain, the IOCs open access has fallen to around 16%, while NOC access has increased to 65%. Until recently, Russia

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was one place where the IOCs had equity access, but that is rapidly changing. The Sakhalin-2 episode is a microcosm of this process; last year Shell had 55% equity in the project, today it has 27.5%. However, Gazprom has come to the party very late and its controlling position in Sakhalin-2 does not reflect a capacity to develop the offshore further.

The bottom line is that the IOCs have been responsible for realizing Sakhalin's offshore potential. In an interview in Fortune Magazine in February 2007, Ian Craig, the CEO of Sakhalin Energy, accurately summed-up the situation with regard to the Sakhalin-2 project: "You can debate whether [the terms] are fair or not now".... "But it's a debate about dividing up a share of what simply would not exist, had we not set them up." In

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other words, it is Shell and its partners that have created the value in the Sakhalin-2 project.

This begs the question — can Sakhalin's offshore continue to develop without substantial participation by the IOCs? To answer this, it is necessary to look in more detail at the challenges and achievements of the first generation Sakhalin projects. However, before doing that it is also instructive to go back to the classroom and consider some of the fundamentals of resource development.

Erich Zimmerman, writing as far back as the 1930s, famously stated: "Resources are not, they become; they are not static but expand and contract in response to human wants and actions." In the 1960s, McKelvey's box elegantly described the conditional and dynamic nature of mineral resources.

According to the OECD: "Proven reserves are such estimated quantities of mineral deposits, at a specific date, as analysis of geologic engineering data demonstrate with reasonable certainty to be recoverable in the future under the same economic and operational conditions." While the price of oil and gas is a critical determinate as to the extent of proven reserves at any given time, increasingly it is those "operational conditions" that are the most difficult to manage and predict.

When it comes to the ability of the IOCs to access and develop new reserves, it is now recognised that the problems lie as much, if not more, "above ground" and relate to access and geopolitical, environmental, and social concerns, as they do "below ground" in terms of the geological and engineering challenges. A further problem for the IOCs is that the

behaviour of the NOCs is often driven by politics rather than economics and the support of the state means that NOCs are less commercially driven than IOCs.

The net result of current trends is that the IOCs are being forced to operate in increasingly challenging and costly places, such as deep water offshore West Africa and the Gulf of Mexico, and oil sands and heavy-oil deposits in Canada and Venezuela. This process may actually increase the technology gap between the IOCs and the NOCs, as the latter focus on the easier to access reserves. At the same time, to maintain access to promising new fields, the IOCs will have to accept much higher costs and levels of political, commercial, and reputational risk than they have in the past.

Sakhalin is clearly a case in point. In an

article in November 2006, *The Wall Street Journal* suggested that the per-barrel development costs in Sakhalin were ten times the cost in the oil-rich Middle East. However, Alf D'Souza, Vice-President Corporate Affairs for Shell Exploration and Productions Services in Moscow, maintains that the Sakhalin-2 project has a "development cost per barrel of \$5 to \$6 and is competitive to other projects of a similar scale." Thus, Sakhalin-2 style projects require substantial up front investment, but the longer-term pay off is equally substantial. But, why is Sakhalin proving so costly and challenging?

In 1994 Russia's first Production Sharing Agreement (PSA) was signed with the Sakhalin-2 consortium; this was followed in 1995 by the Sakhalin-1 PSA. Neither agreement is in the public domain so it is impossi-

Russian-content requirements meant that the international oil and gas service companies had to create local joint ventures or Russian legal entities to compete for tenders. All of this took place in a very unstable legal and fiscal environment, amidst conflict, confusion, and contradiction between the local administration and the federal government in Moscow.

Large integrated oil and gas projects are huge networks of contractors and sub-contractors orchestrated by the operators. These networks span the globe and work to international specifications and standards. It is no easy matter trying to pull-off multi-billion dollar projects in a country experiencing political and economic transition and in a location with no experience of offshore oil and gas production. The early development

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ble to know what was agreed to; however, the level of risk was certainly higher then and the prospects for future energy prices much more pessimistic. The PSA was deemed necessary to provide the investors with a degree of stability and predictability, such that they could commit to multi-billion dollar development strategies.

It is absolutely clear that without the PSAs there would have been no development. Offshore, the environmental conditions are very challenging and the operational window limited to 4-6 months depending on ice conditions. There is also the seismic risk and associated tsunami threat. Onshore, the absence of a developed economic infrastructure and an established oil and gas service base meant that many capabilities had to be developed from scratch. The imposition of

phases of the projects ran into regulatory problems relating to the offshore disposal of drilling muds; in fact the Sakhalin projects are helping to create Russia's offshore regulatory regime as they progress. At times the local geology proved more complex than anticipated and this resulted in delays.

The cumulative effect of all of these challenges is that realizing Sakhalin's offshore potential has been far more time consuming and expensive than initially anticipated. It also has required world-class technological and engineering solutions. Both Sakhalin projects have achieved many industry records and firsts in Russia. The use of 3-D seismic surveying and visualisation techniques has enabled an understanding of the basin geology that is minimizing the deployment of offshore structures and maximizing the benefits

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of extended reach drilling (ERD) technologies. The sheer scale of the Sakhalin-2 project, including the construction and installation of Russia's first purposed-built rigs specifically designed to withstand seismic and tsunami risks, and construction of its first LNG plant, is a major achievement.

Clearly there have been delays and cost overruns, but, as the IEA has documented, this is part of an industry-wide problem and it is noteworthy that Transneft's East Siberian pipeline project is also experiencing delays and cost increases. Furthermore, the project is being developed in the full gaze of the international environmental movement and while they remain unsatisfied with the project's record, the operators maintain that their compliance with international benchmarks is unprecedented in a Russian context. Finally, Sakhalin-2 has sold its LNG well ahead of the

start of production and has established Russia as a new player in the Asia-Pacific gas market.

The Sakhalin-1 project is more modest, but is becoming a showpiece for the deployment of cutting edge technology and engineering excellence in a remote setting. The construction of the Yastreb, the world's largest land-based drilling rig, by Parker Drilling, has enabled ERD to reach the Chayvo field from onshore reducing the need for offshore platforms. On April 24, 2007 ExxonMobil announced that the Sakhalin-1 project had drilled the world's longest ERD well at 11,282 meters or over seven miles and that it was drilled in 61 days, more than 15 days ahead of schedule and below expected cost with no safety or environmental incidents. Oil and gas is now being delivered to markets on the Russian mainland and oil is being exported year round using ice-strengthened tankers and icebreaker support, thus creating a new export route for Russia.

All of this has been achieved with the extensive involvement of Russian workers and contractors. Sakhalin-1 maintains, for example, that 80% of the drilling rig operators are Russian nationals and that project awards to Russian companies have reached approximately \$3.8 billion. Sakhalin Energy maintains that it currently exceeds the 70% Russian-content requirement in terms of man-hours of services and volume of materials and equipment. Furthermore, the supply chains for these projects extends across Russia, diffusing know-how and transferring technology that can contribute to the development of an indigenous offshore capability.

But Russian-content also is a major source of risk for the operators as they often are dependent on the competence of contractors and subcontractors that are new joint ventures and alliances that have no experience of working on Sakhalin to Russian national and/or international standards. In such a con-

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text, learning by doing can be a very expensive strategy and the cost of mistakes can be very high. Witness Sakhalin Energy’s problems with Starstroi (a Italian-Russian joint venture) and the construction of their onshore pipelines.

In the contemporary debate about the relationship between NOCs and IOCs, it is often suggested that while the NOCs lack the technological capacity of the IOCs, they can simply buy the services of the first tier contractors who can do it for them. There is an element of truth to this and it was certainly part of Yukos’ early success in enhancing the production of existing fields in West Siberia. However, the Sakhalin offshore is a totally different case, only the IOCs have the experience to delimit the reserves and deliver a commercially viable development strategy. The service companies are a key element of the network that delivers the project, but the operator is the one that manages the project and, together with the other shareholders, finances it. Furthermore, it is involvement in these kinds of projects that provides the opportunity for the service companies to develop their technologies and capabilities, witness the Yastreb drilling rig.

It may be that a decade or so from now Gazprom and Rosneft will have developed the capacity to develop a project like Sakhalin-2, but they do not possess it now. In their analysis of IOCs and NOCs, Vikras and Ellsworth classify companies on the basis of: resource, technology, finance, and markets. Gazprom is classified as a resource provider, that possess reserves sufficient to meet in-country demand and serves as a primary exporter of oil and gas; and a technology seeker that is less adept with technology and needs advanced technologies to explore and develop the resources

it controls. Both ExxonMobil and Shell are seen as technology providers. Unfortunately, Rosneft does not figure in the analysis but its behavior is similar to Gazprom, but without the same political clout that comes from a monopoly position.

The current political sentiment in Russia clearly gives Gazprom and Rosneft the confidence to assert control over access to reserves, but it does not necessarily give them the capability to develop those reserves, particularly those that are located offshore. Notwithstanding Gazprom’s late in the game entry into the Sakhalin-2 project, the experience of the last decade or so and the competitive advantages of the respective NOCs and IOCs, suggests that the likes of Shell, ExxonMobil, and BP should have a part to play in Sakhalin’s offshore for some time to come. Returning to Zimmerman and McKelvey, realizing Sakhalin’s resource potential is conditional upon access to the experience and the technologies needed to develop offshore oil and gas fields. Furthermore, as activity moves further offshore, into deeper water, and further north, into colder waters, so the challenges increase. Thus Rosneft and BP’s Sakhalin-5 project, which is now part of a broader alliance to develop the Arctic and offshore, is a key test case for the future.

It is clear that the rules of the game have changed in favor of the resource-providing state champions, but having gained control over the reserves base they now need to strike a new deal with the technology providing IOCs; otherwise the potential of Sakhalin’s offshore will not be fully realized. ♠

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