

Forming of the institutional conditions for the development of oil and gas sector in the east of Russia

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Abstract - The state set priorities with respect to the development of the eastern regions of the country, identified the role of oil and gas sector as one of the drivers of this development.

The paper describes the problems in state regulation of exploitation of oil and gas resources (in Russia, taking into account the peculiarities of the eastern regions), and offers some directions for addressing them.

Index Terms – oil and gas sector, resource management, taxation, licensing, regional social and economic effects

I. INTRODUCTION

Today the Russia's economic policy considers the development and the use of raw material resources as a major factor of socio-economic development of the eastern regions of Russia. This policy assumes involvement of new petroleum resource bases into the operation, creation of new production centers (including those in Eastern Siberia and Yakutia), and construction of the East Siberia – Pacific Ocean pipeline to carry Russia's oil to Asian markets.

The creation of new resource bases is necessary to ensure the sustainable development of both the petroleum industry and the territories in the east of Russia. This also promotes sustainable development of oil and gas sector as a whole, ensures export diversification, strengthens the Russia's energy security and its economic and geopolitical positions in the world.

At that the energy sector (mostly, oil and gas sector) has to become one of the main engines of socio-economic development of this area in the foreseeable future despite the fact that the development of the new resources in remote and under populated areas is quite costly.

It is necessary to define a clear state course with respect to the eastern regions and to the development of the energy sector in this area, and next, to build a competent tax policy and to

organize a rational subsoil management. The worked out rules must be set by law.

II. STATE COURSE WITH RESPECT TO THE EASTERN REGIONS

The oil and gas sector has traditionally played a highly important role not only in the Russian mineral complex, but also in the domestic economy. This sector has been a driving force behind the economic development of the entire country and especially the oil and gas producing regions.

The position of the state with respect to the prospects of long-term development of East Siberia and the Far East acknowledged and enshrined in several documents. Its essence lies in the fact that Russia has mineral potential, of a size far superior to its own needs.

At present economy is not one country can do without raw materials and fuel. And it would be extremely unwise not to use the available opportunities for the development of international economic relations and strengthen the country's position in the world.

At the same time, it is important for Russia to expand the geography of export (primarily due to rapidly developing Asia-Pacific countries), in order that to avoid the dependence on particular regional markets. This mainly concerns oil and gas, whose geography of export is in strict accordance with the development of specialized transportation infrastructure.

The Russia's energy policy is conducted in accordance with the principal governmental document – the Energy Strategy of Russia (up to 2020, and further, up to 2030). To realize the above policy, a package of large-scale measures aimed at the development of oil and gas sector of Eastern Siberia and the Russian Far East is being undertaken in Russia since 2006.

In particular, to address socio-economic problems of the eastern regions, certain arrangements (both at the federal and regional levels of government) are expected to cope with the "depopulation" of the territory, in order that to avoid an economic collapse in the region.

The development of mineral resources in the region, on one hand, is impossible without such measures, and on the other hand, is a necessary condition for solving the backlog of serious socio-economic regional problems and for achieving the goals of its long term sustainable development.

Thus, the state has objectives and legitimate interests in the successful working of the petroleum industry in the east of the country. It is interested in covering the country's energy needs in the short, as well as long term, and thus, in the production volume, in inter-state contracts, in tax receipts and dividends from the state holdings. For the state the social and regional economic effects of the petroleum activity at the territory is also a concern. From all these interests in the output from the industry it follows logically that the state has an interest in the efficient management of resources presented for exploitation, including in Eastern Siberia and Far East.

III. PETROLEUM POLICY AND RESOURCES MANAGEMENT

A. State regulation of exploitation of mineral resources

In Russia, like in many other countries, the resources in the ground belong to the state. This was stated in the Law on underground resources from 1992 and also in the Russian Constitution from 1995. Thus from the outset state property and interests are deeply integrated with the industrial and operational aspects of exploitation of petroleum resources.

The Law on underground resources states that state regulation of exploitation of mineral resources is realized through «management, licensing, and control». According to the Constitution mineral resources are subject to

joint management by the federation and the subject of the federation (region) where the resources are located. However, since 2004 in practice decisions on licensing are taken by federal authorities exclusively. Moreover such decisions are not any longer discussed in political fora (which they were earlier), they are now just part of closed administrative processes. This change has perhaps been the most noticeable in Russian resources management in recent years, but is not the only one. Our question is how adjustments and changes have affected the development of the resource base as well as the performance of companies in the east of Russia.

The answer to this question is of great importance, because the hydrocarbon potential of concerned region has a low degree of exploration.

It is undisputed that the state, as resource owner, is interested in a thorough mapping of the country's resource potential. According to the Law on underground resources the state has the responsibility for regional geological surveys, exploration and evaluation of discoveries of mineral resources. Such activities are to be partly financed over the state budget and organized by the Ministry of natural resources.

This function has three main components, or stages:

1. Fundamental competence on the geology of the country and the location of areas with potentially interesting mineral resources;
2. Keeping track of which structures have been studied and evaluated;
3. Secure a sufficient supply of explored and prepared reserves for production.

Usually geological surveys and mapping are performed by the state and financed over the state budget. Exploration for and evaluation of potential structures, on the other hand, may be financed by the state as well as private companies and investors. In the latter case an important question is to what extent the private investor can be guaranteed either the right to develop the resources he discovers or compensation for his expenditures. In the third stage, preparation of resources and

determination of their size, the main role is usually played by petroleum companies. The state does not take direct part.

This development was reflected in the transfer of almost all developed (i.e. ready for production) reserves from the so-called undistributed fund of reserves to the distributed fund, (i.e. licensed for production). In other words the authorities divided up the explored and developed reserves by giving user rights to different companies. Clearly the companies themselves in this situation had little need to be concerned with exploration for new discoveries.

Government financing of geological mapping and exploration fell to low levels. And part of the government financing of this sector had to be used to build down and dissolve numerous geological organizations located in remote parts of the country. Altogether the state's role in geological exploration in the last period can be characterized as passive.

Developments in the legal framework concentrated on issuance of user rights and also an expanded autonomy for the oil companies in determining their exploration efforts. Since they already were so well equipped with reserves and resources they chose to increase their reserves the easiest way, by additional exploration in fields under production and in structures in the vicinity of the production areas. This was entirely rational for the companies given the situation created by the authorities. But it meant that gradually a problem was building up for Russia, not of resources and reserves in themselves, but of the availability of reserves sufficiently developed to come on stream once the 'easy' fields are exhausted.

This situation became visible in 2004–2005. It was no longer possible for the companies to increase their reserve base by drilling in their traditional areas of operation. This realization spurred a reassessment of government policy, and the role of the state in exploration, particularly in new areas, came on the agenda.

A major issue is how private companies and investors can be stimulated to engage in exploration.

This issue has several components. It entails lowering the barriers to new entrants in the petroleum industry and opening predictable decision processes as well as providing access to geological information. Finder's rights need to be better protected by law. Another important condition is a more flexible system for transfer of user rights, licenses, which means that companies can develop fields more rationally, but also that companies can exit without losing money. The required changes go further, however. It is not enough to improve the conditions upstream, it is also necessary to give new companies the possibility of getting their output to market, i.e. access to transport infrastructure.

Changes are underway. Finder's right has been included in regulations from the Ministry of natural resources, and in the latest revision of the Law on mineral resources the right to exchange licenses between daughter companies and holding companies have been secured.¹ (This reform has also made it possible to buy up licenses from small independent companies by simply buying up the whole company). The oil companies see these changes as a first step towards a free market for production licenses.

The state is also increasing its direct participation in exploration and a significant increase in the budgets for exploration has been announced. Whereas the budget for 2008 was 19.5 bill roubles, a 30 per cent increase next year has been approved.² But the increased spending is a hardly a full solution to the problems.

Another step has been to call a halt to the privatization of geological enterprises. As late as 2000, there were still 258 geological enterprises within the system of the Ministry of natural resources. After that year 25 of those enterprises were transferred to Rosnedra (the Federal agency for resource use – under the

¹ Chapter 17, Law on underground resources. Rossiyskaya Gazeta, 28 October, 2006.

² Vremya Novostey, 9 April, 2008.

Ministry of natural resources) to form the state's own geological service. Most of the remaining organizations were dissolved whereas others were reorganized as federal unitary enterprises or fully state owned joint-stock companies. Organizations in both the two latter categories have worked as more or less independent companies and were scheduled for privatization.

In general, there is a tendency to increase state control and ownership in this area. So far no concept has been launched that can compete with the alternative of concentrating capacities under state control. Needless to say, with most geological enterprises under state control this would become a very powerful structure. But the real question is if it would be effective.

B. Licensing is a key component in resources management

Licensing is a key component in resources management since it allows the state to steer activities in certain directions at the same time as it gives the resource user predictability and thus the possibility to raise capital.

In 2004 the Ministry of natural resources introduced a program approach, however. This means that licensing processes are exclusively based on a program for licensing rounds – which in its turn reflects the strategic program for geological exploration, replenishment of reserves and exploitation of the mineral resources base of the Russian Federation until 2010, issued by the Ministry of natural resources in 2003, as well as federal and regional forecasts of the social and economic development. But even though there is a serious and well developed reasoning behind the licensing program, companies don't discover reserves, don't fulfil work obligations [stated in the licenses]. Partly this is so because they are afraid to invest money. The companies are mainly concerned with reappraisals of reserves in existing fields, and are not oriented towards opening new fields.

Petroleum licenses in Russia have mainly been issued according to two principles. After a license competition (also referred to as an investment competition or tender), the winner is

selected on the basis of evaluation of several criteria including technological level, planned recovery rate, community investments, time frame, environmental considerations, and more. The other approach, license auction, is much simpler. Here the winner is the bidder who has offered the largest sum to obtain the license.

After the abolition of the 'two-key' principle in resources management, central authorities have come to play the dominant role in organisation and administration of licensing rounds. And licensing is now actively used to reinforce the positions of state dominated companies.

In addition, important resources have been removed from open licensing processes altogether. Revisions in the Law on underground resources in 2008 install Rosneft and Gazprom as monopolists offshore, makes it possible to issue licenses without competition.

License conditions are stipulated in the license agreement. The conditions are, however, formulated in quite general terms, typically that a certain production level shall be reached within a certain period after start-up. The license agreements do not take into consideration changing geological and technical conditions. There are no criteria in the legislation for revoking of licenses, or time for correction of non-fulfilment of license obligations. Violation of license obligations is widespread. For example, in the fourth quarter of 2007, 152 out of 297 blocs belonging to Rosneft were being explored or exploited despite violations of the license agreements. Typical violations were overstepping of time limits for geological exploration, lower production volume than stated in the license, lack of project documentation.³

C. Access to pipeline

Access to transport infrastructure is a central concern for any company contemplating engagement in production of hydrocarbons.

The Russian state holds 100 per cent of the shares in the company operating the trunk crude oil pipeline network, Transneft, as well as in Transnefteprodukt, the operator of oil product

³ "152 oshibki Rosnefti", *Vedomosti*, 8 April, 2008.

pipelines. Moreover it is the majority owner in Gazprom, which owns and runs the integrated gas trunk pipeline network. These pipelines transport 100 per cent of gas produced, 90 per cent of crude oil and about 30 per cent of oil products. Only in some regions there can be found shorter stretches of crude oil trunk lines outside the control of these companies.

State control of pipelines is presented as an important principle for the functioning of the country's economy. One would expect that this ownership structure would be used to secure equal access to the transportation infrastructure, since efficient transportation of produced hydrocarbons to the market should be in the state's interest. This is also the view expressed by representatives of industry. In reality the pipeline companies do not work this way. All the three companies operating trunk pipelines have their own priorities and interests, and the state exerts minimal control over their operations.

An attempt to solve these problems has been made with the development of the Law on trunk pipeline transportation.

Nevertheless, the Law has not yet been adopted. An important explanation for this is Gazprom's protection of its role as monopolist owner of the Unified gas supply system. Politically it is argued that an integrated network is of crucial importance for economic and social development in the country. In more recent drafts of the law the provisions about ownership have been changed, and it is now proposed that the state shall have minimum 50 per cent plus one share in companies owning and operating gas pipelines, and minimum 75 per cent in oil pipelines. In other words, the monopoly position of Gazprom, Transneft and Transnefteprodukt will be maintained.

Access to trunk pipelines is a crucial issue for independent oil producers. Such companies are usually working marginal, low yielding fields, "tail production". Such activity is important from the point of view of resources management, but it also plays a social and economic role in the regions where it takes place.

According to the Law on natural monopolies access to export trunk pipeline capacity shall be granted to oil producers in proportion to their share of oil supplied to the trunk pipeline system, in case total oil supplied exceeds hundred per cent capacity utilization. The more detailed regulations are to be found in several internal administrative documents as well as in the extensive contracts between the producer and the transporter, worked out by Transneft unilaterally.

In addition the question of outlets for associated gas is becoming increasingly important for all oil companies. In the summer of 2008 FAS drafted a government resolution about access to Gazprom's pipelines for independents.⁴ This resolution would require Gazprom to inform about spare capacity and grant access if they have the capacity. But what is spare capacity and how shall the information be dispersed? This is a difficult issue.

The monopoly problems go beyond the issue of pipeline access. For small oil companies without own refining capacity, access to refineries is a great concern. Most of the refining capacity belongs to the vertically integrated oil companies who are not interested in letting the independents use their capacity. Their offer is to buy the independents' crude at the same low price used as transfer price inside the vertically integrated company. Moreover, the refineries give priority to their "own" crude, or to swap-deals with other vertically integrated companies. In sum this means that the existence of spare refinery capacity does not necessarily mean that independents get access. There is a need to establish firm regulations for pipeline transportation and remove the question of access from closed negotiations.⁵

The unresolved issue of access to pipelines for independents remains a factor that discourages upstream investments. Giving state owned companies operating the pipelines also the role of regulators has been to the detriment of overarching state interests and priorities.

⁴ 'Prozrachnaya truba', *Vedomosti*, 10 July 2008.

⁵ A. Golomolzin in *Ekonomika Rossii: XXI Vek*, No. 14.

D. Taxation

Obviously a central aim for the taxation system is to secure revenue for the state, or more precisely to give the resource owner, usually the state, a fair share of the resource rent. But taxation is also a potentially very powerful instrument in resources management, i.e. securing optimal exploitation of the resources. To this end various special taxes are employed. Internationally taxation of the oil industry falls into three main categories: Extraction fees, royalties on production and tax on profits. Differentiated taxation can encourage resource users to enter new areas. Various schemes can be used to reduce the investment risk.

In Russia several taxes apply to the oil industry, but generally there are fewer taxes now than ten years ago. A mineral extraction tax (NDPI) was introduced in 2002. It replaced the tax for replenishment of the mineral resource base (VMSB) and also some of the earlier subsoil use payments used earlier. The basis for taxation is the value of the minerals produced. It is similar to a royalty. Tax rates were fixed at 16.5 % for oil. The tax is multiplied with a coefficient linked to the world market price. The tax is very rigid and does not have differentiated rates depending on geological conditions. The inflexibility of the taxation system is not only a problem for small companies wanting to enter the sector.

Tax holidays were introduced in East Siberia from 2007. Later on this advantage was extended to the continental shelf, for Yamal and the Timan-Pechora basin. But also this adjustment is characterized by its crudeness, singling out a huge region and not differentiating between fields within the region.

It is quite clear that the Russian taxation system in the petroleum sector is not geared towards differentiation. Considerations for the specifics of hydrocarbon exploitation – deteriorating production conditions in existing fields and higher costs in new fields are absent. The system has mainly fiscal orientation. The goal is to maximise state revenues. But the system also has another feature: It is simple and easy to administer. This is an important reason why it is so difficult to change it.

To achieve transparency and predictability and also to be able to introduce a more flexible taxation system, a more developed system for technical regulations is necessary. Traditionally Russia has had an extremely detailed, but also chaotic system of standards, the GOST (state standard) system. These standards have regulated all forms of industrial activity, in detail describing processes and design. But the standards were neither coherent nor centralised. Various government agencies issued standards conflicting with standards from other agencies, and there was not a complete collection of all valid standards.

Clearly this has been a problem for all kinds of economic actors. To introduce new technology an often cumbersome process was required to get certification for the said technology. In the mineral resources sector production licenses would presuppose the employment of outdated technology. This is different from for example the Norwegian system where an applicant for a license has to present a detailed technical plan for development of a field, and where the technology applied has to fulfill certain requirements. But the choice of technology is up to the company.

It is evident that the institutional obstacles for developing a flexible and also more objective basis for assessments of costs – and thereby a foundation for a more sophisticated taxation system – are considerable. The problem is compounded by incomplete markets for supply of equipment and services to the oil industry.

A special problem is connected with the natural monopolies. They justify increased tariffs by costs for maintenance of their fixed assets. They use open tenders very seldom. Non-public transactions make it possible to exorbitant prices to ‘friendly’ manufacturers and service providers, creating hidden alliances reinforcing the monopoly problems and distorting the cost picture. If the government really wanted to tackle this issue it could try putting the purchasing departments or trading houses of Gazprom, Transneft and Transneftprodukt under public control.

IV. CONCLUSIONS

The factors why there are many problems in the development of oil and gas sector in the east of Russia are the same that impede the overall development of the petroleum industry in Russia at present. But there are some special institutional barriers for developing the oil and gas potential under hazardous climatic conditions of this remote and under populated area.

Many of the above problems are caused by the absence of a united state strategy aimed at an integrated development of oil and gas resources of the eastern regions. Such a strategy should convey not only the state's interests (including those of subjects of Federation), but also the interests of business (including particular oil and gas companies and other "actors" of the process of development and utilization of oil and gas resources).

While developing new areas, the co-ordinating role of the state is particularly important in creating infrastructure facilities. The approach involved the elaboration of integrated plans of a specialized infrastructure, is quite rational. Their practical implementation may be done through the creation of consortia of oil and gas companies with the appropriate equity financing of investment.

V. BIOGRAPHIES



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