ST. PETERSBURG INTERNATIONAL ECONOMIC FORUM 2018

PRESENTATION OF I.I. SECHIN ON THE ENERGY SECTION

OIL MARKETS: RISKS AND NEW OPPORTUNITIES

CONTENT

1. Introduction	3
2. Future of the power generation sector	4
3. New regulatory challenges - sanctions instead of the market?	5
4. The state and prospects of the world oil market	10
4.1. Moving towards balance	10
4.2. Responsible behavior of market participants	11
4.3. The role of demand dynamics and its factors	11
4.4. Monetary factors	12
4.5. Shale production in the USA	13
4.6. In search of stability	14
5. Strategy "Rosneft-2022"	16
5.1. Environment	16
5.2. Oil and gas production	17
5.3. Technological development	

Dear participants and guests of the Forum!

I am glad to welcome you to the Energy section of the St. Petersburg International Economic forum.

1. Introduction

Our discussion platform within the framework of the SPIEF is not only traditional, but this year it is also a jubilee one. We meet at the St. Petersburg forum for the tenth time today. Over the years, the Energy section has acquired the status of an industry forum, the distinctive feature of which is the opportunity to discuss directly and openly, including, difficult topics often ignored by other forums.

As you remember, during the previous work within the framework of the Energy section we discussed the basic themes for development of the global industry: we were among the first to start talking about the imbalance in regulation of the industry, outstripping consumption and the role of gas, the need to regulate financial participants of the market, the role and challenges in development of alternative energy and transport. **Our discussion would not be so productive if it were not for the active participation and professionalism of my colleagues, participants of the Section who made our sessions so interesting and in many ways determining the course of development of the global energy industry. I hope that today's discussion will be just as interesting.**

I want to thank especially our today's participants with whom we worked all these years in the Energy section on a regular basis - the Minister of Energy of Russia Novak Aleksandar Valentinovich, the management of Exxon Mobile, the head of our reputable shareholder BP Bob Dudley, head of Glencore Ivan Glazenberg, Patrick Pouyanne – General director of Total, the president of GE and Baker Hughes Lorenzo Simonelli, the head of Vitol Jan Taylor, the Chief Executive Officer of Eni Claudio Discalci, our Chinese, Venezuelan, Qatar, Cuban, Japanese

partners, the government of Russian regions and many others.

The situation, in which we work, distinguishes this meeting from the previous ones. Profound changes in the markets, transformation of the oil and gas industry and energetics in general are in process. Let's discuss for whom of the market participants these processes will become a source of new risks, and for whom - a source of new opportunities?

Of course, I should mention the limitation of liability due to presence of estimates and forecasts in my speech.

2. Future of the power generation sector

Forecasts of leading analysts and companies, including the recently issued forecast of BP for development of world energetics note that **the demand for hydrocarbons by 2040 will be higher than today even in the most difficult-to-implement scenarios.** The attention should also be paid to the need to replenish the old producing capacities with new resources in the coming years - up to 40 million barrels per day by 2040, which will require a stable and major inflow of investments into the industry.

Even the current US Secretary of Energy recently expressed confidence that fossil fuels will account for 77% of world energy consumption by 2040.

We agree with such consensus position. Oil and gas will remain the core of world energetics and economy as a whole in the foreseeable future.

I will say even more - this conclusion concerns not only largeproducing countries, but also large consumers. Regardless of the commitment to development of alternative energy, the oil and gas industry remains, among other things, a source of budget revenues for development of new technologies and green energetics. So in Germany where the total subsidies to development of green energetics are about 26 bln euro annually excises for motor fuels bring much more to the country's budget about 40 bln euro. Therefore, the importance of the oil and gas industry for development of economies and such large-consuming countries cannot be overestimated.

3. New regulatory challenges - sanctions instead of the market?

Unfortunately, today none of the participants in the industry and energy consumers can abstract from the exceptional non-market circumstances, in which the industry operates, primarily with regard to various kinds of sanctions and restrictions. As a result, the most dangerous for development of the industry is **the unpredictability of conditions of our common work.** Application of sanctions to create a competitive advantage in real sectors of the economy is becoming the order of the day. The instruments of the "financial war" identified in the notorious book of Juan Zarate "Treasury's war", the former deputy Advisor of the US President on national security, started to expand onto the real sector; at the same time such actions in the opinion of their irresponsible initiators require no arguments for their justification.

It is also a matter of fact that these legislative measures are designed in such a way that they can be arbitrarily interpreted by regulators and, necessarily, by market participants. It should be noted that the USA has consistently pursued the policy of non-acceptance of international treaties allowing to challenge their actions at international platforms. **In essence, judicial protection and fair market arbitration are excluded.**

The influence of political decisions on the world economy has increased many times.

So, the decision of the USA to exit the multilateral agreement on the Iranian nuclear program announced on May, 8 puts about 5% of the world production and about 10% of the world's proven oil reserves under the

sanctions risk. Due to weakening of the sanctions regime in late 2015 after conclusion of the deal on the Iranian nuclear program - production of liquid hydrocarbons in 2016-2017 in Iran grew by one third (+31.5%), reaching 4.7 million barrels per day. If we add to this production in Venezuela falling under sanctions - the country possessing the world's largest oil reserves - and the sectoral sanctions imposed on Russian oil and gas companies, the total amount of hydrocarbons subjected to unilateral restrictions makes up about a third of the world's reserves! It is a kind of negative record - this has not been so far in the history of the world market.

These measures, we understand, are a multi-way combination, the legend of which is the "support of the domestic market", but in fact the combination is not only the protectionism of the interests of one's own business, but also the support of its satellites in international markets. In fact, there is a gross violation of international law and interference in the work of the market. US sanctions are extraterritorial in nature and extend not only to US companies, but also to any company in any country in the world.

Sometimes opinions are heard about possible application of the EU Council Regulation of the 1996, which blocks the extraterritorial application of sanctions. As we recall, such precedents have already been applied to Cuba, Libya and Iran. In this case, I doubt the probability of using this mechanism today, because we already have the fact of TOTAL's exit with significant losses from one of the largest gas projects in the world - the South Pars-11 project, in which TOTAL received a controlling stake in precedent order, but now it leaves with significant losses. The project with a value of more than \$ 20 bln is among the top 10 gas projects in the world with a peak production of 20 bln cubic meters of gas per year.

Exiting of Total from this project and its possible freezing free up the space for a more expensive US LNG helping to load capacities that, given

new projects, including Sabine Pass, Cove Point, Elba Island, Cameron, Freeport, would be loaded only by 50% or for the LNG of Australian projects "Gorgon" and "Winstone", launched in the last year (and owned by the US company Chevron).

It will be interesting to hear the opinion of Mr. Pouyanne about the prospects for development of this situation.

Analysts rightly speak of "shock waves" that, as a result of the sanctions policy, hit the commodity markets - be it metals, energy sources or food products. We already saw in April of this year almost a 30% increase in prices for aluminum, an increase in the price of nickel to 16 thousand dollars per ton. In this situation, special danger provides access to insider trading, risks of which are minimal in normal market operations. It is enough to recall the example of the dynamics of shares of Alcoa and Rusal; some market experts suggest that the political inside in this particular case could be monetized.

I note that such unproductive sanction approach is already being repeated "by a carbon-copy" even at the level of separate regions. As an example, we can mention the economic blockade of Qatar, the goals of which have remained unclear, although it is clear that dialogue can be the only solution to pressing regional issues in the Middle East.

Unfortunately, the sanctions agenda starts to be directly linked with the "resolution" of trade conflicts and used as an instrument of regular pressing, which in fact becomes a practice of the US trade policy. As you know, now China imports relatively little US energy resources amounting to about \$ 7.2 bln per year, which is about 3% of China's energy imports. The preliminary framework agreement between the USA and the PRC, if it is, of course, still implemented in the light of Trump's latest comments - it is estimated that the supply of energy sources from the USA to China can double in the next 3-5 years. These agreements are direct losses for producers from other countries, to some of which the US administration simultaneously applies sanctions. A logical question arises: is it the substitution of market mechanisms by a new economic order? It cannot be ruled out that the framework trade agreement presupposes other unformalized bound conditions; for example, investments in exploration of natural gas in Alaska. We are witnessing the requirements for our European partners to abandon the Nord Stream-2 project. Apparently, in this connection it is not accidental that the US Secretary of energetics states that the export of US energy sources will allow "friends and allies of the USA to reduce their dependence on unfriendly nations". Does such approach presuppose the supremacy of market principles?

The policy of sanctions and ultimatums applied to hydrocarbon markets leads to occurrence of a permanent "sanction fee" in the price. After some time, I do not exclude, we can talk about the sanctions commodity "super cycle" and in the near future we will see new price records.

For a new level of prices, ultimately, American and European consumers will pay, and this level will be achieved not as a result of the work of "OPEC+" or other agreements, but because of the implemented unilateral sanctions policy. I cannot fail to note the report of the Kiel Institute of World Economy for 2017, recently widely quoted by the Bloomberg agency, which estimated that 40% of losses from sanctions imposed on Russia fell on Germany and only 0.6% on the USA.

Populism has its own price, and when applied to the oil market and to the consumers' pocket, it can be extremely high.

One of the constantly mentioned risk factors for the oil market is still the prospect for development of electric vehicles and the associated expectation of a decline in the demand for oil.

If you remember, a year ago we talked in detail about how realistic were the aggressive plans of growth of the fleet of electric vehicles and the potential threats to our industry related to them. I should note that our assessments and warnings were justified.

So, promised by the Tesla company large-scale production of the budget electric car Tesla-3 did not take place so far. As a result, investors' enthusiasm for the company's prospects has become more restrained. I think that it was also manifested here how much more difficult it is to organize the production of mass industrial products than experimental ones, even spectacular ones. We understand it well in our industry.

At the same time, many regulatory initiatives, including subsidies for the production of cars with zero emissions continue to distort the economy of the automotive industry. **I do not know how thoughtful, stable and responsible it is.**

At the same time, we are making significant investments in associated gas and natural gas utilization and liquidation of flares - only in our Company they amount to about \$ 2 bln over the past 5 years, which is comparable to the efforts in the direction of "green energy" of the largest companies in the sector. As a result, we consistently reduce the amount of greenhouse gas emissions. We believe this is a more effective and really important contribution to the issues of the climate agenda.

In general I note - we observe the complete absence of "responsible regulation", which our industry needs so much. Regulatory decisions are made again despite the logic of industry development and in contradiction with the objective interests of market participants. These solutions are too fast, large-scale and not built into existing production and logistics chains.

A striking example is the new regulatory initiatives of the International Maritime Organization (IMO) regarding restrictions on the use of fuel oil. We support the ecological component of these solutions, but nevertheless one should keep in mind that replacing sulphurous fuel oil with more environmentally friendly fuels, taking into account the fact that this process has matured, requires resolving the issue that it is necessary to implement new requirements taking into account the readiness for them of the market, manufacturers of equipment, carriers. Will this not break the transport market?

And with voluntaristic approaches to regulation, new waves of volatility in the markets cannot be avoided.

4. The state and prospects of the world oil market

We always put the fundamental analysis of the oil market in the "cornerstone". It should be noted that three of its key participants - Saudi Arabia, the USA and Russia - retained their influence. At the same time, the competition between these and other major producers is complicated by the cardinal differences in the regulatory environment and the role of non-market factors, which we have already partially noted.

Nevertheless, last year the industry together with the responsible participants was able to overcome the acute period of instability in the oil market, which threatened to lead to devastating consequences.

4.1. Moving towards balance

Not belittling the role of the "OPEC+" agreement, it seems that a significant contribution to achieving a balance in the market was made by a production dip in Venezuela, which, unfortunately, was the result of largely non-market measures of influence on this country.

Despite the decline in investment and the decline in production in recent years, we believe that **fundamentally the Venezuelan oil industry has good prospects due to its resource base and proximity to key markets. It largely explains the focus of sanctions pressure to create a competitive advantage for US producers.** The long-term decline in production, which has been observed over the past 10 years, does not match the resource potential of this country and new technologies for oil production. On the other hand, the crisis around the agreement on the Iranian nuclear program made a big contribution to the current price spike. And its development can lead to an additional significant reduction in supplies to the world market and its redistribution.

4.2. Responsible behavior of market participants

The most important factor in achieving a balance between supply and demand in the oil market is the responsible and qualified behavior of the majority of producers, including the largest global companies, which in conditions of a sharp drop in prices and revenues took unprecedented steps to improve their efficiency, concentrated on the most stable projects in these conditions and have recently come out to the positive dynamics of investment.

A number of major investment projects are being implemented. The companies of the industry, despite the sharp complication of working conditions, continued to lay the foundation for long-term satisfaction of the demand for hydrocarbons.

4.3. The role of demand dynamics and its factors

Of course, **stabilization in the oil market was due to a decisive degree of steady growth in the world oil demand**, including due to acceleration of global economic growth. So, according to the IEA, the world demand for liquid hydrocarbons in 2017 increased by 1.6 mln barrels per day and amounted to 97.8 mln barrels per day. About 35% of the world growth in demand was in the countries of the Asia-Pacific region. At the same time, even in Europe, where there was a decline in demand during the economic downturn and high oil prices, there was an increase in consumption - in 2017 it was about 360 thousand barrels per day according to the data of IEA.

In the global economy there are strong sectors of growth in oil consumption - air, water, freight road transport, as well as

petrochemicals, in part of which the main contribution to increase in demand for petroleum products in the world is expected. This view is held by the IEA, OPEC, BP, ExxonMobil - there is, in fact, an industry consensus.

As a result of all these factors, a gradual reduction of reserves of commercial oil and oil products was identified, which became the determining factor in the growth of oil prices in 2017 and early 2018.

Thus, from the side of demand we see no real threats to the oil market development.

4.4. Monetary factors

In our analysis we should not forget about the influence of the monetary component, inflation and interest rates on the price of oil. Many of these factors are also under the control of US regulators and are tools for creating a competitive advantage for their own producers.

If we take into account the contribution of inflation and the weakening of the dollar, the **current level of oil prices in the prices of the early 2000s is less than \$ 45 per barrel.**

Let us also not forget that a number of producers, primarily American shale ones, need a high level of oil prices.

Most of the Middle East oil-producing countries need a price of oil at the level of \$ 70-80 per barrel for balancing the budget, even taking into account the rationalization measures and the sequestration of budget expenditures carried out by most of these countries during the period of a sharp drop in oil prices.

Thus, we **must first seriously analyze all factors**, including pricing factors, the balance of supply and demand, the level of commercial reserves, budgets and payment balances of oil-producing countries, investment programs of companies, fiscal factors, as well as the currency component, and to draw a conclusion about the "fairness" of the

current level of oil prices only by the results of the detailed analysis.

4.5. Shale production in the USA

Analyzing the dynamics of the price of oil, we note that it is its level that determines the prospects for the production of shale oil in the USA, which has been growing since the second quarter of 2017, but has most clearly manifested itself since the fourth quarter.

An important incentive was the **tax reform in the USA**, which, while improving the economy of shale projects, contributed to the flow of investment in the industry. According to forecasts of industry analysts, taking into account new investments, shale production in 2018 will grow by 1.1-1.4 million barrels per day.

We must admit that the US shale production industry has become an important part of the global oil and gas industry, which has entered a stage of a certain maturity. Now it's subjects and all of us need to take a closer look at its risks, and this is infrastructure constraints, scarcity of service organizations and qualified personnel, increase in water cuts in the wells, insufficient maturity of the oil deposits, gradual depletion of the most profitable sectors (so-called sweet sports), problems with associated gas utilization and other environmental risks, raising interest rates, costing inflation, most of the products are hedged at \$ 45-55 per barrel, and others. Thus, according to the Bloomberg's estimate, the losses of the largest players from hedging can reach \$ 8 bln at a price of \$ 68 per barrel.

As a result, the leaders of the oil shale industry have new prospects at this stage, and outsiders have growing risks of becoming acquisitions.

I would like to pay special attention to how often and sometimes very significantly the leading agencies review the forecasts of the growth of shale production even for a short period of time.

So, even OPEC for the period from September 2017 to May 2018

gradually increased the forecast of shale production in the US from 620 thousand barrels per day up to 1.07 million barrels per day.

In turn, analysts of Rystad Energy firstly presented extremely optimistic forecasts for 2018, and then sharply downgraded them almost twice.

It would be interesting to hear the Neil Duffin's comment on these issues.

Thus, the growth of shale production will continue, but it is already obvious that it has its limitations in scale and duration and requires constant development of technology.

4.6. In search of stability

In general, I should note that despite a certain, albeit fragile, stabilization of the situation on the world market, the dynamics of oil prices and imbalances in the world market are still cyclical and, moreover, there are manifestations of chaotic processes. **Responsible producers, in cooperation with other market participants, should find new forms of smoothing of these fluctuations already in the medium-term plan.**

Now the transition to a new stage in the interaction of the exporting countries (and, perhaps, the wider community) has matured, which should be more flexible, adaptive to the dynamics and long-term market demands. It seems that you need to think about the formation of a suitable site for such work.

There is an important aspect of purely practical work, important in the current chaotization of markets. Increasing uncertainty at all stages of investment and **operational activities sets the task of creating regional service hubs** that could facilitate universal access to pipeline transport, terminals in terms of redirecting the use of resources and even equipment, building materials and service facilities to the most tense areas.

An important role in increasing the transparency and stability of the

market is played by **development of exchange trade**, with growth of the world trade of energy resources in national currency, alternative exchange platforms (for example, in China and the Middle East). These events are landmark, many of them occurred after our last year's meeting at the forum.

So, on March 26 this year the Shanghai International Energy Exchange hosted the **first bidding of oil futures in yuan**. Interest in trading already showed international investors - the first deals were concluded by the largest traders Glencore and Trafigura.

The Russian industry St. Petersburg International Commodity Exchange (SPIMEX) is actively working in the same direction with the support of all of our leading companies.

An important task of the global energy industry is to **increase the level of its investment attractiveness.**

Separately, I would like to note that we are certainly dealing with accumulated fiscal imbalances in the approaches to taxation of the Russian oil industry.

Imbalance in the fiscal regulation of the processing segment today led to the fact that, for instance, Rosneft's **EBITDA of the whole Downstream block** - with a dominant share in the domestic oil products market, with 13 large refineries in Russia, with more than a trillion rubles, invested in modernization - in today's macro conditions does not exceed 7% of the consolidated EBITDA of the whole group of companies. This is an insignificant indicator compared to the volume of invested capital, and here we need to find sustainable solutions that, given the growth of world oil prices and receipt of additional revenues by the budget, will create normal incentives for development of oil refining and oil and gas chemistry. We began to study such approaches with the Government of the Russian Federation.

We see numerous examples of reducing the fiscal burden on oil

and gas companies around the world, which allows them to more fully reveal their resource and investment potential and, thereby, stimulate long-term growth of the economy. I cannot fail to note the adoption of decisions to reduce the fiscal burden in the USA, and in Saudi Arabia, and in other countries. At the same time, fiscal instruments are harmoniously supplemented with instruments of monetary policy active lending, interest-based incentives for export-oriented financing, and a depreciation of the national currency to create a competitive advantage.

In our part, we can but welcome such decisions, and we hope that from the representatives of the Government of the Russian Federation participating today in our session, we will hear a plan of action and initiatives in this direction.

5. Strategy "Rosneft-2022"

Rosneft, as one of the leading companies in the global oil and gas industry, strives to continuously improve its efficiency. Today this means, first of all, adaptation and, I would even say, "adaptability" of the corporate model to new challenges and opportunities. This includes both technological re-equipment, and organizational innovations, and reaching new milestones in cooperation with partners based on mutual respect and consideration of mutual interests.

5.1. Environment

The basis of the new strategy of Rosneft-2022 is the construction of a business that takes into account the highest requirements in the field of ecology, industrial safety and environmental protection. Rosneft undertook to enter the first quarter of the list of world oil and gas companies by key indicators in this area by 2022.

5.2. Oil and gas production

Rosneft is the leader in oil reserves among public companies.

We share the opinion of our colleagues that in the new conditions of constant increase in competition, the leaders in efficiency will have the greatest chance of success and stable development, including those who can provide the minimum costs in the Upstream sector. **Rosneft has the best level among its competitors** by this indicator, and we intend not only to retain it, but to improve it by 2-3% per year in comparable conditions due to optimization of operating costs.

By 2022 we plan to provide **at least 2% of annual production growth**, including through geological and technical measures at mature fields, including the Samotlorskoye field, as well as active development of a number of new promising projects (including the Vankor cluster, the Ergin cluster, Russkoye and Severo-Komsomolskoye fields). A complex of technological innovations will ensure production growth for projects of hard-to-recover oil, and in general, the system for development of on land fields of the Russian Federation will be optimized.

As you know, we rely on the best practices, balancing our own and external oil services, ensuring the sustainability of business in case of price escalation. We have a common park of our own drilling rigs in excess of 300 units, and taking into account the lifting rigs for well workover - over 1,000 units. Security of our own drilling fleet has been brought to a level of more than 50%, in accordance with the provisions of our strategy, and the fracturing fleet is in the top 5 leaders of the Russian market.

In the field of gas business the strategy will allow Rosneft to take a 20% stake in the Russian gas market with production growth to above 100 bln cubic meters per year.

5.3. Technological development

The technological factor is becoming a key factor of competitiveness in the whole upstream chain in the oil industry and in oil trade.

Rosneft pays special attention to development of technological capabilities and use of breakthrough technological approaches allowing to remain at the forefront of the global oil and gas industry for many years.

In the Company:

- building of deep-velocity models, wave modeling, implementation of cordless technology of field observations are actively used. As a result, in 2017 on land of Russia we achieved the maximum historical success of exploration - 86%.

- special attention is paid to the issues of **robotization and automation of production.** In particular, since 2016, an integrated support system has been implemented that allows to trace the drilling process of each well of the Company from the beginning of development of the technical assignment for its design to completion of construction and commissioning in fact creating a **digital twin of the well.**

- it is planned in the medium term to create **fully robotic drilling sites**, thus minimizing human participation in hazardous production processes, including special climatic conditions.

- advanced world-class systems are implemented to maintain production at mature fields at **the fourth stage of development.**

- technology of building multi-hole wells with a number of branches up to 10 shafts and a total length of 7.5 kilometers has been mastered and successfully applied,

- advanced technology of drilling multi-bore horizontal wells using the "fishbone" is actively applied.

- in order to ensure technological independence in the field of

software for fracturing design the **import-substituting corporate fracturing simulator RN-GRID** was developed and industrially implemented.

The keynote of the St. Petersburg Forum this year is building of the economy of confidence. For us, for Rosneft, one of the guaranteeing suppliers on the world energy market, mutual trust, first of all, is based on the unconditional fulfillment of contractual obligations. Fulfillment of obligations is the backbone of the order of the world economic, market economy, international energy security. Promotion of trust is also facilitated by mutual investments, the exchange of assets, the integration of business, finding mutually beneficial solutions for market participants.

Much in today's world, unfortunately, hinders development of cooperation and trust, and within the framework of today's section we need to try together to understand how mutual trust can be developed and supported.

In these difficult and unpredictable conditions Rosneft will remain a reliable and open partner for cooperation. We will continue to attract partners and implement joint integrated projects. In other words - continue to be at the forefront of ensuring world energy security, remain a real leader of the industry - this is our responsibility. The political environment appears and disappears, and the responsible behavior of industry leaders is our common duty and the basis for sustainable development of the world economy.

We are ready to discuss proposals to reduce the risks of market chaos, formation of regional service-technology hubs, with all potential partners.

I await an active and informative discussion from all of you, in which, I am sure, we will be able to enrich each other with a better understanding of our approaches and identify new points of contact and opportunities for development of interaction.

Thank you for your attention!