# ST. PETERSBURG INTERNATIONAL ECONOMIC FORUM JUNE 16–18, 2011

# **NEW PATHS TO ENERGY SECURITY**

**Securing Global Growth** 

JUNE 17, 2011 — 14:00-15:30, Pavilion 7A, Conference Hall 7.1

St. Petersburg, Russia

Shifts in demand, new technologies, political upheaval in the Middle East and natural disaster in Japan are just a few of the factors converging to reshape an emerging, integrated global energy market. Getting the energy mix right is crucial for future energy security.

With the participation of **Dmitry Medvedev**, President of the Russian Federation, and chief executive officers from global energy companies

## **Moderator:**

Rair Simonyan, Chairman of the Board of Directors, OOO Morgan Stanley Bank

## Panelists:

Igor Sechin, Deputy Prime Minister of the Russian Federation

Nobuo Tanaka, Executive Director, International Energy Agency

**Dr. Daniel Yergin**, Founder and Chairman, IHS Cambridge Energy Research Associates

# Front row participants - energy corporation executives:

Vagit Alekperov, President, Member of the Board of Directors, Chairman of the Management Committee, Lukoil JSC

Nils S. Andersen, Partner, Group Chief Executive Officer, A.P. Moller-Maersk

Vladimir Bogdanov, General Director, Surgutneftegaz JSC

Antonio Brufau, Chairman, Chief Executive Officer, Repsol YPF

Peter Caddy, Business Development Director, Argus Media

Jean-Francois Cirelli, Vice-Chairman, President, GDF

Fulvio Conti, Chief Executive Officer, General Manager, Enel SpA

Yves-Louis Darricarrere, President of Exploration and Production, Total SA

**Robert Dudley**, Group Chief Executive, Executive Member of the Board of Directors, BP Plc.

**Neil W. Duffin**, President, ExxonMobil Development Company

**Alexander Dyukov**, Chairman of the Management Board, General Director, Gazprom Neft JSC

Sergey O. Frank, President and Chief Executive Officer, Sovcomflot JSC

**Andrei Galaev**, Chief Executive Officer, Sakhalin Energy Investment Company Ltd.

Trond Giske, Minister of Trade and Industry of Norway

Hermann Hahn, Executive Director, TNK-BP

Eduard Khudainatov, President, Rosneft Oil Company

Sergei Kirienko, Director General, State Atomic Energy Corporation 'Rosatom'

Marcel Kramer, Chief Executive Officer, South Stream

Jacek Krawiec, President, Chief Executive Officer, PKN ORLEN

Helge Lund, Chief Executive Officer, Statoil ASA

**Alexei Miller**, Deputy Chairman of the Board of Directors, Chairman of the Management Committee, Gazprom JSC

Jay Pryor, Vice President of Business Development, Chevron Corporation

Dr. Bernhard Reutersberg, Member of the Management Board, E.ON AG

Paolo Scaroni, Chief Executive Officer, eni

**Paul C. van Gelder**, Chairman of the Executive Board, Chief Executive Officer, N. V. Nederlandse Gasunie

Peter Voser, Chief Executive Officer, Royal Dutch Shell Plc.

## R. Simonyan:

Ladies and gentlemen, Forum participants, we will now begin the session. We are gathering with essentially the same group of panellists for the third year running. Each time, the results of the discussion have been fairly interesting, and sometimes even surprising. Two years ago, when oil prices were falling and noone could predict where they would end up, when the price was around USD 40-50, we took a poll and determined that the price range that would satisfy both producers and consumers would be USD 75-80. And, amazingly enough, this forecast proved absolutely correct throughout the following year. Last year the situation was entirely different. We took a poll on the price of natural gas, and the overwhelming majority decided that gas prices would not rise above USD 300. Here in this room there is one person who was so upset by this that he then spent quite a long time explaining to everyone that prices could not be below 300 dollars and would in fact be higher. And that is just what happened. That person is Alexey Miller.

This year we will address a different topic: energy security. And now I would like to introduce the session participants, the panellists, who in fact really need no introduction. Igor Sechin, Deputy Prime Minister of the Russian Federation. Mr Nobuo Tanaka, the head of the International Energy Agency (IEA). Mr Daniel Yergin, head of one of the best-known energy research firms, CERA, and, as you know, one of the leading experts in this field. Dan, where is your book? He has just published a new book. He has just published a new book. Do you have it with you?

<no audio> (00.02.25) ... Sechin, this is the best marketing... Okay.

#### I. Sechin:

Behave yourself and they might give you a book, too.

# R. Simonyan:

Okay. Mr Sechin, would you like to begin the session? Go ahead.

#### I. Sechin:

You are the boss. First of all, I would like to express my sincere thanks to the panellists, my colleagues, and the specialists whom we hold in high esteem, Mr Tanaka and Mr Yergin, for their participation in our Forum, which has become something of a tradition. The past twelve months have been marked by significant disruptions in the energy markets, an increase in demand and a certain shortage in supply, and a significant rise in prices for energy resources. The reasons behind this are evident. There were several technological and geopolitical events that no one could have foreseen: the disastrous spill in the Gulf of Mexico, the tragedy at the Fukushima Plant, and events in the Middle East.

I want to avoid overdramatizing these events and emphasize one simple thing: whatever models we create, future energy markets will meet with unavoidable surprises that may take various forms – they may be technological, economic, political, or related to the structure and regulation of markets. These disruptions and interruptions in the supply of energy resources will have a significant economic impact, for obvious reasons. Energy markets are extremely susceptible to inertia. Meanwhile, existing price-determination mechanisms, especially in the oil market, are highly dependent on circumstances and speculation, resulting in exceptionally high price volatility. Under these conditions, it is investment in the real economy that will lead to a degree of recuperation in the global market. One example is the activation of the oil pipeline in northern Alberta, Canada, the Keystone project, which led to a decrease in the price of WTI crude as compared to Brent.

We should also note that there is not enough transparency with regard to management of funds on the part of the country's major financial players, who are also the biggest players in the raw materials market, when it comes to making investment decisions. In many cases, we are talking about management of funds from millions of private individuals, so-called 'passive investors'. The assets under their control are numbered in the hundreds of billions, if not trillions, of dollars. The interests of these players, lawful interests, can be at odds with the tasks of maintaining stability and predictability. This is because they skilfully make use of the lack of elasticity in demand for energy resources, using modern, purely financial mechanisms which turn instability and volatility into a source of profit.

We cannot be held hostage to events that spiral out of control. Russia has become fully integrated in the global energy market, which we felt acutely when the sharp rise in worldwide oil prices led to a jump in prices for motor fuel in our country. Both consumers and producers of energy resources must adapt their approaches to ensure robust and stable development in the energy markets. Let us all together see what governments and major energy companies can do to minimize the effects of similar shocks in the future.

However we evaluate the pace of economic growth in various countries and regions, along with trends towards increasing energy efficiency and growing population and incomes throughout the world – particularly in countries with rapidly expanding markets, mainly Asia – there will be an increase in the global demand for energy resources. Mr Tanaka will tell us later today about how the International Energy Agency views likely development scenarios for supply and demand in the energy sector. I will not dwell on this in detail, but suffice it to say that, despite the grave financial and economic crisis of recent years, demand for energy resources in the first decade of the 21st century grew by approximately 30% – from 9.4 billion tons of oil equivalent in 2000 to 12 billion tons of oil equivalent in 2010. The International Energy Agency currently forecasts an increase in demand for energy resources by another 36% – to 16.3 billion tons of oil equivalent by the year 2035. What are the possibilities for satisfying this

growing demand? On the slide you can see the current structure of the energy supply, with the central role played by hydrocarbons.

Can this structure change significantly in the future thanks to new, non-traditional energy sources? Hardly. Let us try to evaluate the options. Nuclear energy: in light of the tragedy at the Fukushima Plant, the future development of nuclear energy raises doubts for many. The natural first reaction is to refuse to use nuclear energy in the future altogether. And some countries have set out on that path. They have that right. Of course, not all countries are following their example. For our part, we believe that the construction of nuclear power plants – new, safe, environmentally friendly ones – is not a utopian vision. We believe that there is a future for atomic energy. The future is one of new technologies, including fast-neutron reactors. That said, the forthcoming decommissioning of obsolete nuclear power plants and decrease in the pace of growth in nuclear energy must be compensated for through other sources. This is what we need to think about.

There are renewable sources: hydroelectric power, wind energy, biofuels, and solar power. We agree that renewable energy sources must play an increased role. Given our resources and priorities, we are actively participating in the development of hydroelectric power, the use of biomass, wind and solar power, and innovative technologies for the production, transmission, and use of electrical power. We are also aware that rapid growth in the use of renewable energy sources is generally costly and reliant on direct support – on government subsidies – which leads to significant additional outlays for consumers.

Natural gas. Special attention must be paid to the role of natural gas in the energy supply structure of the future. First of all, it has been proven that gas supplies are sufficient to satisfy global needs for many decades to come. Second, gas is a fuel that is clean from an environmental standpoint, and an increase in the use of natural gas will contribute to solving problems associated with possible climate change. Third, natural gas can be effectively developed in

tandem with new energy sources, thus providing insurance against the risks that arise from instability and interruptions in electrical power production.

In addition, in a number of markets, we are seeing a growing and serious lack of predictability. One example is the unpredictability created by the introduction of the EU's Third Energy Package and the decisions made regarding its implementation. I am sure that my colleagues from the IEA and CERA will confirm these assessments. We are carrying on an active dialogue with the European Union regarding these issues, and we expect that our partners will develop firmer positions that will ensure security in supply and demand. A fairly obvious conclusion arises from what I have said up to this point: in the foreseeable future, the demand for energy will be met, as before, by natural gas, oil, and coal. This is why it is necessary to continue seeking, exploring, and developing new sources, and to continue to expand into new regions. Many of the major existing deposits have been largely exhausted, and their yields are falling.

Until recent times, a major stabilizing factor in the oil market was the reserve capacity of the OPEC countries, which before the crisis amounted to 4-5 million barrels per day. It is difficult to exaggerate the importance of Saudi Arabia and the stabilizing role it has taken on. And there is, of course, Iraq, with its significant potential for increasing yields. Our colleague, the Minister, is here with us. I would like to welcome him again and thank him for coming to our conference. Our company is playing an active part in developing Iraq's oil fields. In this regard, Russian experience and technology are of critical importance, since the pre-war oil industry in Iraq was created with the help of Soviet specialists.

However, despite all of Iraq's natural resources, international oil companies are working there essentially on service contracts and, along with the high profits, are taking on a significant amount of technical and political risk. It seems unlikely that this situation will allow for the potential yield in Iraq to be realized in the near future, even accounting for its strategic importance in geographical terms. Thus,

regardless of the geopolitical situation, there is no basis for relying on growth in the production capacity of OPEC. Forecasts from the International Energy Agency predict that by 2015 the increase in energy production capacity in the OPEC countries will reach only 1.4 million barrels per day, which amounts to less than 2% of current oil production worldwide. And so new regions and new hydrocarbon deposits are our best hope for ensuring a stable equilibrium between supply and demand in the markets.

An even clearer feature in the development of the global energy market is the concentration of traditional resources in the hands of state-run oil and gas companies. It was not that long ago that projects in the oil and gas sector, particularly large-scale projects, were carried out by a limited number of international oil companies. But today it is national companies that control the vast majority of traditional hydrocarbon supplies. Their technological purview and their financial and administrative capabilities are steadily growing. Moreover, many processes have been turned over to independent service companies that, we believe, must be equal and important partners, particularly given the constant need to modernize and innovate in the development of energy production.

And now I will say a few words about the role of Russia in global energy markets. You do not need me to tell you that Russia can make a major contribution to ensuring energy security in the future. We are the world's leading producer of hydrocarbons, and one of the leading producers of coal, nuclear energy, and hydroelectricity. I have no doubt that future geological surveys will lead to a major increase in the country's resource base. Naturally Russia cannot solve the problems of global society at the expense of its own interests by increasing sales of hydrocarbons on the global market. Any responsible government must make providing for the needs of the domestic market and the national budget its highest economic policy priority. We start from the assumption that Russia's economic growth will be accompanied by a significant growth in the demand for energy. The planned diversification of the economy will, to a large extent, depend

on resources in the fuel and energy sector. However, the relative proportion of GDP accounted for by this sector, in terms of investment volumes and proceeds from exports, will gradually decrease.

Thus we see a steady growth trend in the domestic demand for energy resources. For Russian energy companies, sales on the domestic market are already comparable to exports in terms of profitability, and are in some respects even more attractive. The demand for high-quality motor fuel and petrochemicals is growing rapidly. Another important factor that must be borne in mind when speaking about the development of the domestic market is the need to modernize petroleum refining and the development of petrochemicals. Though this might seem like a paradox, Russia is currently producing 60 million tonnes more petroleum products than it consumes. But this surplus is in the form of heavy intermediate fractions that create no added value for the national economy and, rather than being a marketable commodity, requires further refining, which for the most part takes place abroad. What we are talking about here is in fact a giant tax loophole. The current system of taxation provides great profit incentives to refineries – first and foremost to producers of heavy fractions – as compared to crude oil producers. And still our oil refineries do not use this leg up to build their capacity for alkylation, isomerization, or reforming, to provide the market with the high quality fuel that it lacks. Instead, inefficient facilities for primary distillation are being built throughout the country.

We do have an understanding of how to remedy this situation. We will revise our tax and customs policies with regard to products that have not undergone intensive refining, and we will take other steps to encourage the manufacturing of products that meet the needs of the domestic market. We are considering measures to boost competition in petroleum refining, including independent processing, banking supplies of oil products, and introducing provisions for technical regulation within the Customs Union and Common Economic Space. We are looking into the possibility of licensing oil refining and making changes to

land use policies that would guarantee supplies for the domestic market. And we have that right. After all, such sales are at least as profitable as exports. The economic conditions for taking this step are already in place in our country. The growth in manufacturing of high-quality petroleum products is not a temporary phenomenon. It is conditioned by long-term factors: rising standards of living for the public, and growth in the shipment of goods and freight.

I would like to say few words now about oil and gas petrochemicals. We have already begun work to turn Russia into a global centre for oil and gas petrochemicals, and analyses show that we will have a strong resource base to meet this objective. Development of these resources will involve more and more wet natural gas, resulting in an annual output of 50 million tons of gas condensate fractions, which are the most effective raw material for petrochemicals. In meeting this objective, we must first of all bring Russia's energy sector up to date in its consumption of highly refined products. The slide shows data on the per capita consumption of petrochemical products. The difference in consumption levels between developed countries and Russia is enormous. Only if we can close this gap in the next ten years will we be able to develop our domestic petrochemical industry and attain an average annual growth in production rates of more than 11%. Consequently, the domestic demand for energy resources will grow, even if we consider the possibility that some energy expenditures will be reduced.

Thus, looking to the future, when drawing on our resources we must consider both growing domestic demand and the need to meet the energy requirements of the world economy. Those in the audience here, the leaders of Russian and international energy companies, know perfectly well the many risks associated with exploiting new deposits: commercial, financial, technological, political, and so on. Naturally, in entering into new regions we cannot and do not want to take on all of the risk ourselves. As I have already stated, we cannot become hostages to the unpredictable development of events in energy markets.

Consumer countries, too, cannot remain on the sidelines. It is hardly fair to saddle producers with all of the responsibility for meeting the growing energy needs of humanity without any interruption to supply. Consumers must share these risks with us and make a sufficient contribution to the development of deposits and the transportation infrastructure.

Three fairly obvious points follow from what I have stated here. Number one: we must diversify our trade markets. Number two: we must seek out mutually beneficial forms of strategic partnership with world leaders in fuel extraction. Number three: we must seek out mutually beneficial forms of cooperation between producers and consumers of energy resources.

Here is a rather interesting slide on market diversification. It shows the great efforts being made now in Russia to develop the infrastructure for oil and gas delivery. We are expanding existing routes and opening new ones: from Yamal, the Arctic, Siberia, and the Far East to China, Japan, and India. As demonstrated in the International Energy Agency's recently-published review, annual Chinese demand for natural gas imports will reach 150 billion cubic metres by 2020, and will exceed 330 billion cubic metres by 2035. To say nothing of Europe. This is an enormous effort and a great investment, but these investments will give us the opportunity to significantly improve supply and meet the global demand for energy resources on a purely commercial basis, regardless of the political environment.

Two years ago we raised the question of developing international cooperation to reduce systemic risks in global markets. Mr Scaroni, CEO of Eni, who is here today, put forward the idea of creating a global oil agency. Evidently, he has abandoned this idea. We know that Mr Yergin, one of the leading authorities on energy, has also often made suggestions for various options to increase the reliability and stability of world energy supply, and to develop international cooperation. It would be interesting today to hear your opinion as to why these ideas are not being implemented to the extent that we would all like to see.

We have said a great deal about the need to widen the practice of using long-term contracts, and our position on this issue has not changed. It is long-term relationships that give the parties guarantees that the large-scale projects so necessary to the current energy supply will come to fruition. It is these sorts of relationships that will reduce the risks that we have spoken of. Given the unique importance of energy for the world economy, it is important for all of us to maintain openness with regard to the exchange of key data, transparency of tax policies, and transparency in decision-making mechanisms. It sometimes happens that companies from small countries and offshore tax havens dictate terms to large national players. Our goal is to harmonize the rules of the game in producer countries and consumer countries.

In developing international connections at the company level, we have begun to implement a strategic partnership framework. Everyone has heard about the current agreements that we have signed with a number of leading national and international companies: we welcome everyone. This includes such international big names as Total, BP, Statoil, Exxon Mobil, VNGK, and General Electric. The recent financial crisis has once again confirmed that investment in paper securities, debt instruments, and joint stock capital, however significant they might be, is not enough to ensure stable and long-term cooperation in investment. High volatility in the market increases price risks, and speculative shifting of capital does not allow for growth in mutual trust. On the other hand, direct investment and the exchange of assets with physical raw material value are gaining priority status.

Recent market events have shown the extent to which our world is interdependent. The role of Russia has changed drastically: it has become an important component of the world economy. And we fully understand that further integration in the world economy is a necessary condition for successful economic growth. We are open to mutually beneficial cooperation and we expect the same from our partners. The examples I have presented today are just the

first steps in this direction. Russia has changed, and the world has become a different place. And thus conversations about the openness of the Russian economy, about long-term economic cooperation both within Russia and internationally – these are not empty words for us. We are backing up these words with real actions and, I repeat, this is only the beginning. The most important principles for cooperation remain the same for all of us: equality, consideration for each other's interests, long-term intentions, and the trust built on this basis. Let us get to work, and let us hold to these approaches. We have no preconceived notions. It is of little use to talk about the need to improve the investment climate – we need to take real steps.

Thank you very much. I hope your time here will be both pleasant and fruitful.

## R. Simonyan:

Thank you. There will be time set aside for questions and comments after all of the participants have spoken. There are fewer this year than in the past, so we will have more time afterwards. Mr Tanaka, would you like to begin? You and the work of your organization have already been mentioned several times today.

#### N. Tanaka:

Thank you very much. I would like to thank the Russian government and Mr Sechin for inviting me to participate in this very important St. Petersburg International Economic Forum. As Mr Sechin has quoted lots of IEA statistics, along with research and projections, I don't really have to explain what I am going to be speaking about today.

It is obvious that uncertainty in the global market makes our judgment and investment projections much more difficult than two or three years ago. You name it: the economic crisis, the gas situation, the oil situation, the situation in the Middle East and the incidents at the Fukushima nuclear plant have made

things much worse, and speaking as a Japanese person, I really feel sorry that we are creating this huge problem for the energy sector.

However, I am very sure that we Japanese will do our best to stabilize the situation and that we will show that Japanese technology, together with the help we are receiving from all over the world, can overcome this nuclear crisis and return to our position as a solid, very technology-oriented country again. And I promise you that this will happen as quickly as possible.

Since Fukushima, we have been developing a so-called 'lower nuclear scenario'. Unfortunately, it is a reality that many, if not all countries are now reviewing safety standards for nuclear power, and conducting risk assessments. So we think our previous projection on world energy was too optimistic. But in the process, what we found is that our share of nuclear power, which is currently around 14% of the primary energy demand, will decline to about 10%. What does this mean? It means that it should be replaced by something else. We assume that it is going to be replaced by three forms of energy: coal, gas, and renewable energy. What is the impact of this? For coal, it is the equivalent of about 130 million tons, which is almost the same level of Australian steam coal exports. We need another Australia in 2035.

As regards gas, demand will increase by about 80 billion cubic meters net. That represents the gas production of Kuwait and Qatar at this moment; we need another Qatar. For renewables, we need 460 terawatt-hours. That is about five times the current level of renewable energy generation in Germany. Huge investment in this sector is needed.

Ultimately, this will mean 30% more CO<sub>2</sub> emissions from the power sector. This is costly, less sustainable and less secure, because it means we have to import; the importers must import more of these fossil fuels. But this also creates a very big chance for Russia to provide gas, coal and other fuel sources. So it means there is a possible opportunity for this country, though with that would come responsibility.

Another scenario which we are now developing is the one that we call the 'Golden Age of Gas'. [holds up publication: The World Energy Outlook, Special Version]. We are entering the Golden Age of Gas. Mr Yergin sells his publication very well. I must give this to Mr Sechin, this is a present for you. The Golden Age for Russia is obvious in this scenario for gas.

What you see here is that total energy consumption will increase more than we had predicted before because of cheaper gas. But at the same time, gas will definitely increase much, much faster, replacing coal. So gas will become the second largest energy source in 2035, going from about 3.3 trillion cubic metres now to 5.1 trillion cubic metres. That means in this scenario, we see a possible increase of more than 50%.

It is golden age for gas producers, for the gas industry, that is for sure. But is this a golden age for sustainability? This is an interesting question, because in this scenario, unfortunately, CO<sub>2</sub> emissions will not decline; they will remain almost at the same level. They do not increase dramatically but they do not decrease either. They are almost at the same level as our previous prediction, the 'New Policy Scenario'.

This comes because of the huge increase in demand from China, as Mr Sechin explained when talking about our projection for Russian exports to China, India, and Pacific or Asian countries. The demand from these economies explains much of this 'high gas' scenario.

The case of Germany is very interesting. Germany recently decided to phase out nuclear power by 2022. Well, this will require a huge use of renewable energy, but that is not enough because renewables are very costly and also need improvements to the grids, smart grids etc. So gas is definitely necessary. If the German plan is implemented, it will mean 16 BCM more gas will ultimately be needed.

Renewable energy is very important, but at the same time, gas is an important back-up and is needed for the time being. There is a need for necessary

resources to make sustainability possible in the future. This is the '450 Scenario', which the IEA has been promoting for years.

The 450 Scenario is the sustainable scenario for controlling the atmospheric temperature increase by two degrees Celsius through to 2050. The New Policy scenario is not sustainable in a sense, as it will not really decrease CO<sub>2</sub> emissions. A lower nuclear scenario or a higher gas scenario both unfortunately imply almost the same level as the New Policy scenario in terms of CO<sub>2</sub> emission reduction. So we need much more effort in terms of efficiency and in terms of the demand revolution, with initiatives such as electric vehicles etc. So CCS technology is necessary.

We have already said that this 450 scenario is practically impossible. That is a very drastic statement, but, in practical terms, the 450 scenario is now impossible. It is technically possible, but is prohibitively expensive. So this is a problem for the global discussion on climate change.

Efficiency is important. This is a tough question for Russia, but fossil fuel subsidies are increasing fuel consumption domestically. In Iran, Saudi Arabia, and other producer countries, it is obvious, of course, that these are relatively cheap resources, so selling domestically is much cheaper than exporting; that is understandable. But this is certainly stimulating wasteful consumption.

Russia has been making substantial improvements in energy efficiency. But going farther into the gas sector, this kind of phase out is really important, and was contained in our recommendations to the G20. We are very happy to help Russia with its efficiency measures. We are engaged in bilateral discussions with Russia specifically on the subject of efficiency.

This is good for everybody. It is not just the producer and consumer countries, but everybody who benefits from energy efficiency. This is a way to enhance energy security, to the extent that not using energy is the best way to achieve energy security.

Finally, to conclude: we think there are many areas where we need more renewable energy. We are entering the golden age of gas, but gas alone will not ensure sustainability. We have to use the old low-carbon technologies, solar, wind, CCS, electric vehicles... but using all of these things means that the age of cheap energy is over. The cost of electricity, energy, oil, gas etc... everything is very expensive.

We have to face these facts to achieve economic growth. The question is, how can we make it happen? Because if we use half of the energy, but energy prices double, we are still spending the same amount on energy use at home. So efficiency, together with this higher energy price, is the only way we can live in the future.

The IEA's role is getting more complex. Our role was energy security, but specifically related to petroleum security. Using strategic stockpiles in case of disruption, we tried to smooth out the market. But with the gas market, electricity market, renewable energy use... How can we achieve comprehensive energy security in the future? Mr Sechin covered the question about global governance or the global energy organization needed to stabilize the energy market. We are very happy to do that. We are creating energy security in petroleum, and achieving more comprehensive security in the electricity market. But to make this kind of organization happen, we invite Russia to join the IEA. Russia is joining the WTO. Russia is joining the OECD. Why not the IEA?

We are now inviting Russia, China, India, all of these countries to come to our ministerial meetings, to discuss these energy security issues together; but to avoid uncertainty or unpredictability of the global world, we welcome the further collaboration of these countries, and that is a way to reduce instability and unpredictability in the energy sector.

Thank you very much.

# Dr. D. Yergin:

Mr Tanaka, ladies and gentlemen. Minister Sechin emphasized the role of shocks and surprises that happen much more frequently than one plans for in the energy world. This, as we see from experience, is part of life in the energy world. However, that creates real problems for the future of investment; as Mr Sechin pointed out, investments take a long time for their impact to be felt, some 10 to 20 years. Sometimes, I think the energy world is governed by a law of long-lead times; more and more things take longer to do.

The second reason why it is so challenging to have these shocks and surprises is simple. As we saw in those graphics, it is the growth in demand. That we are looking out 20 years from now, and can see that energy demand on a worldwide basis will be maybe 35—40% higher than it is today, and that takes a lot of big projects to ensure that gets done.

So these shocks and surprises reinforce the focus and the need to think about energy security and how to make the energy system more resilient. I think it is fair to say that it has become more urgent since the beginning of the century. We can make a chronology of some of the unexpected things that have happened, beginning with that surge in demand in 2004 that caught everybody by surprise. Some in this room will remember that, as late as February of 2004, oil prices were going to be between USD 22 and USD 28 a barrel more or less forever, and then we started to see that surge driven really by structural change in the world oil market, resulting from China and India, their entrance into it in a very big way, and the kind of discovery really of the world of the BRIC economies, as we heard this morning.

In 2005, those hurricanes that arrived at the Gulf of Mexico delivered something that people may not have been aware of around the world, but I think it was the first really integrated energy shock in which oil was down, gas was down, electric power was down, all at the same time. This showed the vulnerability of a modern society to an integrated energy shock.

Mr Sechin spoke about security demand as well as security supply, and that was the principle the 2006 St. Petersburg Summit put down and emphasized. In 2008, we talked about the demand shock, the fear of shortage that governs the world oil market, and then the repercussions of all of that. And of course, the two shocks of 2011. Firstly, Fukushima, which has changed the expectations for a nuclear renaissance, and which means that nuclear will, as we heard from Mr Tanaka, play a smaller role in global energy supplies, even when you see the demand growth.

And secondly, something that we just touched upon, but which looms very large, namely the consequences of the Arab spring, the changes in North Africa and the Middle East.

This gives rise to three uncertainties: firstly, the nature of the governments that come out of that; secondly, a discovery of a kind of new battle in the world. The battle between social networks and traditional national sovereignty—that is something still to be played out and is very significant in the Middle East. And thirdly, we have to recognize that the geo-strategic balance that has underpinned stability in a part of the world that has 65% of the world's oil resources has been changed in ways that are still not clear. So all of that heightens the concerns around energy security, which exist also because of concerns about terrorism. Clearly, the differences of view on Iran's nuclear programme, as that progresses day by day; and maybe we should add to that the uncertainty in Yemen, which could loom much larger than people are thinking now.

So all of this raises the whole spectre of insecurity about a very critical part of the world. So, there plenty of risks there; but what are the risks looking ahead? One thing that Mr Tanaka emphasized, in addition to Russia and the IEA, was the importance of bringing China and India—as these huge new consumers—into the structure of international energy relations in order to avoid commercial competition turning into national rivalry during times of stress and times of crisis. As we have seen before that can be very costly given the nature of these longer

and longer supply chains and their security. And the third thing that is out there, is illustrated with these repeated cyber-attacks, the cyber vulnerability of the energy systems upon which we depend.

The other day, the head of Sony described the impact of the cyber-attacks on his company, said that we live not in a brave new world, but in a bad new world. Certainly this is something that looms very large for the energy sector.

So, given how fundamental energy is to everything else, let me just offer a few thoughts about how to think about energy security. Firstly, the need to think about it in terms of physical security; the ability to basically protect it, to protect the supply chains.

Secondly, I think that part of energy security is the ability to access ways to develop energy resources in a timely way.

The third point is in a sense what Mr Tanaka and Mr Sechin represent here, namely the importance both of national governments, but also international institutions, in creating a framework to anticipate, coordinate, and deal with the consequences of energy problems and avoid panics, to avoid those bruising battles, where, as I said, commercial issues in moments of tension and panic turn into national collisions, and to help modulate them.

And fourthly, something that I think is really inherent in this issue, and something that we have talked about over the last several years, is the need to ensure that there really is timely and adequate investment made to meet these longer term needs, so that the energy will be there through the ups and through the downs.

So, lastly, I will just put some questions on the table to think about in this regard. First, is there adequate diversification? Mr Sechin mentioned the diversification of markets, also the diversification of supplies, which is a basic starting point for energy security. The second question is, are our systems resilient enough? Is there enough resilience in the system to respond to the surprises and to the shocks? Third, is the issue of recognizing the integration that exists among all of these energy markets, which are more and more connected, and the

management of that integration. Fourth—something that we saw in the 2008 runup—is the need for quality. Do we have the quality information that we need? Do we have the insight into the market, so that panic, rumour, speculation, all of those things, do not take over and drive markets to a degree that leads to severe repercussions?

And finally, of course, is the need to find the right balance between regulation and the vitality of markets, and the ability of markets, as the president said this morning, to be open like parachutes so that you get the flexibility in the markets to respond to crises when they occur.

## R. Simonyan:

Excuse me, one minute.

## Dr. D. Yergin:

I will just make two last quick points. The first is that we have heard about the diversification of gas that looms very large, and that is, in a sense, the default fuel that is going to grow. And the last point I want to make in conclusion brings us back to the discussion on Russia, where Mr Sechin began. The uncertainty in the Middle East focuses attention again on Russia's role as the largest producer and the second largest exporter, as well as being a massive source of natural gas. It has a critical role in the energy security system, and indeed this entire energy system, which is represented by many in this room, it really is a bulwark for global energy security. Now, we all know that very important decisions lay ahead about future supply, about future investment. Many in this room are part of those discussions.

I think if you stand back and think about it from an energy security perspective, the nature and investment and development of the next generations of resources in Russia is important not only to Russia, it is important to the world energy supply; but more than the world energy supply, it is also of critical importance to

global energy security, and, as such, it is very important to the security of all nations in the global community.

## R. Simonyan:

Thank you very much.

We have heard some very interesting presentations that looked at the issue of energy security from various points of view. Let's move on now to discuss the presentations. We will have some prepared responses and some spontaneous ones. If anyone would like to ask a question directly off the cuff, please do so. As you know (this was mentioned in all the presentations today, and Mr Tanaka demonstrated it quite well), one of the major disruptions recently has been the tragedy at Fukushima. Because of this, forecasts for nuclear energy development are being revised, and so I would like to ask two related questions. The first I should address to Sergei Kirienko: regarding what Mr Sechin talked about – the future development of nuclear energy and an increase in capacity – to what extent is this a utopian vision? What can Russia do in this regard? After that I will ask the representatives of Western companies about the opportunities for cooperation with Russia that will be provided by the "golden" natural gas Mr Tanaka told us about. Mr Kirienko. But please keep it brief, a minute to a minute and a half.

#### S. Kirienko:

I will do my best. As Mr Sechin has already indicated, we are absolutely certain that it is possible to provide for the safe development of atomic energy. The first thing that this requires is a new generation of technologies, which Mr Sechin spoke about earlier. These technologies already exist. The second thing needed will be improvements in international law; the IAEA safety standards, which currently have the status of recommendations, should be made mandatory. Transparency of information and regular submission of information should also

become mandatory. We believe that this should be done within the framework of the IAEA, including an expanded role for the World Association of Nuclear Operators, since, in addition to the power plants themselves, the experience of operating organizations and the qualifications of operational personnel are extremely important.

Finally, the most important thing with regard to nuclear energy is reference projects, i.e. projects that are being implemented in practice, rather than theoretical ones. These projects exist – they exist in Russia as we speak. This is what President Medvedev spoke of today at the Forum opening: reference projects that meet post-Fukushima requirements. We are aware of how these requirements must change, the solutions are there, and they are already practicable. We also understand that even the most conservative prognoses for the atomic industry – one of the scenarios spoken of by Mr Tanaka, where the industry share drops – would require us to double our nuclear power plant capacity. This is an enormous task. I would also like to point out that one of the most important features of nuclear energy, aside from its contribution to the energy supply in the coming years, is its environmental contribution to reducing the release of greenhouse gases.

We are absolutely certain that the path to a new phase in energy development beginning in 30-40 years' time (and we really do not know what it will be) – that the path to this new phase lies through the knowledge, experience, infrastructure, and qualifications that are being created today, in sectors including in the nuclear industry. Thus this industry remains a driving force for innovative energy development. Thank you.

## R. Simonyan:

Thank you very much. I believe that Dr. Bernhard Reutersberg from the E.ON group is here today. They have nuclear facilities and major power production

facilities. Dr. Reutersberg, in your opinion, to what extent will recent events lead to an increase in demand for Russian natural gas in Europe?

## Dr. B. Reutersberg:

First of all, of course, the German situation was mentioned several times already. There has been a political decision already made in Germany, and I would not comment on that. This is a democratic decision and it is a fact for us. But of course, this will change the energy security issue in Germany substantially. So we have to shut down 17 nuclear power plants in the next 10 years. There is not sufficient reserve margin available, so the energy has to come from somewhere. With the moratorium, we in the end covered it by using some reserve power and to change from being an exporter to an importer. This is, let us say, a first measure. The question is, what will happen in the next 10 years? Is there really a golden age for gas in Germany?

Of course, predominantly, the politicians are aiming now for a completely renewable world in Germany. We all know that this will not be taking place, because in the end, you need some back-up capacities. We have to change the whole market system from a liberalized market to more of a capacity-based market, because otherwise nobody will invest in gas capacities.

And the question is: if we have a time frame of 10 years, is it really feasible that we can build up at least 10 to 12 new large CCGTs? This will probably be one of the major challenges that we face if we are really going to enter into a renewable world strongly backed up by gas capacities.

## R. Simonyan:

Thank you very much.

Given the additional demand for Russian natural gas and considering the provision of energy security, one question naturally arises: what role can the Nord Stream and South Stream pipelines, about which there has been so much

debate, play in providing this security? In spite of the controversy, they are being implemented – at least the Nord Stream. So I would like to ask Paolo Scaroni to say a few words about this: with regard to Russian natural gas and new pipelines.

#### P. Scaroni:

Thank you. Of course, the question of energy security, or of gas supply security, is linked first of all to having gas, so we therefore need more upstream investments. But we then need to transport the gas to the consumer countries, and from this point of view, the more we can avoid the transit countries the more secure the energy supply will be.

Both the Nord Stream and South Stream projects were conceived in order to bring Russian gas directly to the EU consuming countries. If the EU is going to use more gas, which I think everyone of us believes is the case, then we need even more South Streams and Nord Streams.

The other thing Europe needs in order to secure... to have a higher level of security or supply is to be more interconnected within Europe, making it possible to transport gas—and, why should there be any reason for it not to be Russian gas?—from everywhere to everywhere else within the European Union.

# R. Simonyan:

So you think that there will be enough demand for extra Russian gas with all the gas pipelines that are being built right now?

#### P. Scaroni:

Well, it is one of the few sources that Europe has, which has the possibility to increase in volume. Therefore, I think that the future supply of Russian gas into Europe is a necessity. It is an opportunity for Europe. It is a very easy source, which all of us have been using for many years, and which all of us recognize

provides a supply at a level of stability and reliability that very few other sources can.

## R. Simonyan:

Thank you.

And I would like to ask Paul van Gelder, CEO of Gasunie, to talk about Nord Stream: to what extent will Nord Stream play the part that has been expected of it, and what difficulties have there been in implementing the project? What mistakes would you prefer not to repeat? And how satisfied are you with the results?

#### P. van Gelder:

I will not start with the mistakes because I have not noticed any mistakes so far. I am very pleased with our participation in the Nord Stream pipeline. We have a 9% stake in that project. It is a vital project for the energy security of Europe, as we all agree, and as the previous speaker already mentioned. But even more important, I think—and I agree with my colleague from Eni—is that we continue to invest in inter-connectors and in more pipelines to distribute the gas within Europe.

That is vital, and requires a solid investment climate. This requires a vision of the leaders in Europe and that gas is a not a bridging fuel but a destination fuel. It is here to stay, and it requires a European regulatory framework that allows for solid investments in more pipelines in order to get the gas through Europe and to distribute it to the end consumers.

## R. Simonyan:

So you believe that diversifying infrastructure with the participation of Russian and international companies is the right way to ensure long-term energy security?

#### P. van Gelder:

We need to do more things at the same time. I agree that we need to invest in the upstream side in order to secure the supplies. But we also need to invest in the pipelines themselves. What a lot of people tend to forget is that we started using gas some 40—50 years ago; in fact, in 2013, my company will be 50 years old.

We are also seeing replacement investments coming our way. So we need to take into consideration declines in production from the North Sea, changes in gas flows, replacement investments, and investments to redistribute the gas in Europe. We see a lot of investments coming our way, and we need a stable investment climate that is favourable for these investments.

## R. Simonyan:

Thank you. The investment climate in Russia was one of the topics in the President's speech today, and was also discussed quite a lot in this session. The critical role of Russia in meeting energy consumption needs was also discussed. Let's move on now to the part of Mr Sechin's talk where he spoke of the need to establish large-scale cooperation for the exploitation of Russia's natural resources. Excuse me, now we will have a short break, but the next question will be for Peter... Russian Federation President Dmitry Medvedev has decided to join us. President Medvedev, I am delighted to see you becoming a regular participant in our session. Thank you.

#### D. Medvedev:

I even know the script: now we are going to determine the price of something again.

## R. Simonyan:

We will take a poll, but not right away.

#### D. Medvedev:

Not vegetables, I hope? Am I in the right session?

## R. Simonyan:

Yes, you are in the right place. A brief summary of what we have discussed; since I am requiring all of you to stay under a minute and a half, I should also keep it short.

First – whatever the forecasts and long-term models say, disruptions of various kinds will occur in the world, and the growing demand for energy will be met by hydrocarbons. Existing confirmed hydrocarbon resources are rapidly being used up. Russia can play a crucial role in meeting the demand of the world as a whole and in meeting the increasing demand on the domestic market. And finally, to develop Russia's resources effectively, we must open up those resources for international cooperation, share the risks between producers and consumers, and generally make international energy production more transparent and open. Now we are discussing these issues. The discussion began with us trying to evaluate how revised opinions of nuclear energy development in light of the Fukushima accident are affecting the markets. The situation – for Russia, at least - looks good because significant additional sales of natural gas will be required in Europe and elsewhere. Everyone is in agreement on these points. And now we are moving on to the question of what the investment climate looks like in Russia, how profitable and reliable is it to put money into the development of the Russian economy and the energy sector in particular.

A question for Peter Voser, CEO of Shell Oil: how do you think international companies such as Shell can help to develop the resource base? Why do we need foreign investors, particularly for the exploitation of new offshore deposits?

#### P. Voser:

I think it is key for Russia, and the world, to develop the energy sector by means of sustained investment. We need to bring technology and innovation into Russia and apply them within the current projects and businesses which we have. But also, we need innovation to develop new projects, such as in the Arctic, either for gas or oil.

I think for that we need certain incentives and collaborations, but not just in the oil and gas business; it is also clear that in the industries around the oil and gas business, we can actually help to develop the economy of Russia by making sure that the components, the local content, is developed here in Russia, for example in shipping, or with regard to other materials which we need. I think there is a win-win situation here if we actually develop the resources for the world by bringing in the latest technologies and fully developing them, but at the same time we can make a contribution to the Russian economy by developing the other businesses.

That will need different incentives so that we can actually work together with our partners, such as Gazprom, Rosneft and the Russian government. So I will be interested to hear how you see this developing over the next few years and how we can meet this huge challenge to develop the supply to respond to an ever-rising level of demand for energy in the world.

## R. Simonyan:

Thank you. I would like to pose a question to those investors who already have experience of investing in the Russian economy. And let's move away from oil and gas. I would direct this question to Fulvio Conti, head of Enel, which has invested a great deal of money in the development of the Russian energy sector. Here is the question: how well does the current reality meet the expectations that you had when you invested that money?

#### F. Conti:

It is a pleasure to confirm our commitment to investing in the country. We committed five years ago to invest EUR 8 billion here, and we will deliver this level of investment by the end of 2015. We were convinced by the driving forces of the liberalization and privatization processes, but I have to admit this is slowing down to some extent. We need to refresh this, in particular, in conjunction with the need for re-engineering, refurbishing, and modernizing the existing electricity generation fleet in the country. Huge programmes need special care in terms of regulations. We need also to think about upgrades of the grid, to bring in new technologies, to improve the distribution of electricity in the country, which are much needed to support and sustain the development of the welfare and industrial development of the country.

In this regard, hopefully we might be seeing in the future a confirmation that—and I like to speak as a domestic generator, as a domestic producer—that the internal price for gas and third-party access to gas distribution might be opened up to foreign investors and to domestic investors as well.

I would like to propose that you consider the formation of a clearing house for matching all of the distribution requirements into the grid, and possibly to allow free market competition, allowing customers to choose the suppliers they want, with the opportunity that the open market gives them. A clear and stable regulation, and the incentives necessary to reward investment in the new generation, or the modernizing of the existing generation, are much needed.

If we can work together in establishing a new set of regulations that will allow investments to be available, you can count on us.

# R. Simonyan:

Thank you. So are you glad that you made that investment, or if you could go back five years, would you approach anything differently?

#### F. Conti:

I am saying that I wish I could invest more in the future. But I need to have better regulation, a higher price, which will be much needed in order to invest a huge amount of money into modernizing the existing system; not only in generation but also in upgrading the grid. And I say this again, with a bit of sorrow, that the push that was there in 2005 is to some extent diminishing.

I need to encourage your government, Mr President and you, Mr Sechin, to open your regulation to us and to allow us to contribute with our technologies, to attain improvement and enable future investments.

## R. Simonyan:

Another question for those who have experience investing both in Russia and abroad: to what extent do you believe investments in Russia are protected? To what extent are the rights of investors, the rights of owners, and so on, protected? How do policies in the Russian Federation – meaning economic policies – differ from those in the other jurisdictions you operate in, and what would you like to see changed? Let me pose this question to Mr Darricarrere.

#### Y.-L. Darricarrere:

In response to the first question, 'How do we feel about the investment climate in Russia, and what are we doing here?' I would answer in the spirit of the invitation of Mr Sechin, that now is not the time for more talking but for actions.

So I would just like to remind you that very, very recently, we invested USD 4 billion into Novatek, so I probably don't need to comment further on how we feel about the investment climate in Russia.

As to your second question, 'How can the investment climate be further consolidated?' I would make two brief comments. Firstly, Total is today involved in two major projects—Shtokman and Yamal—which require large investments. In order to make these investments profitable, we certainly need a modified fiscal

framework. Providing a fiscal framework that is adapted to encourage investment is certainly a way to improve and consolidate the investment climate.

To follow on from Peter Voser's comment regarding the local content, those major projects will bring the opportunity for the Russian oil service industry to be developed. And certainly, allowing the development of this, the transfer of technology in a progressive and realistic and progressive way will certainly lend further comfort to the investment climate in Russia.

## R. Simonyan:

Thank you. Mr Duffin of Exxon, how comfortable do you feel in Russia as an investor? Very briefly, though.

#### N. Duffin:

It is interesting when you put it in the context of other countries around the world, and how different they are. Of course, different levels of investment occur in different parts of the world, but the common one is where the largest investments are; and as we are seeing in many countries around the world, there are many, many large projects now; as opposed to those that used to take hundreds of millions, it is now into the fives, tens, twenties of billions of dollars.

I would reiterate what my colleagues have already said here: that it is very important that, as well as the long-term relationship we are entering into for these projects—which will last for 20 to 30 years—that we achieve a long-term economic balancing among the investors and partners, and, of course, the share to the government, either through its revenue stream, its tax stream and/or through the development of its local industry.

#### R. Simonyan:

Thank you. I would like to pose the same question to a representative from a Russian company that has invested a great deal in Russia and is now trying to invest abroad: Vladimir Bogdanov.

## V. Bogdanov:

Thank you. President Medvedev, my respected colleagues.

Naturally, the questions addressed today, the presentations by Deputy Prime Minister Sechin, Mr Tanaka, and Daniel Yergin, are highly relevant, because without energy security we will not be able to solve the macroeconomic problems that face humanity today and that we will continue to face in the future. We believe that to solve these problems successfully – and this was mentioned today in the presentations – it is necessary to increase production of both hydrocarbons and other forms of energy. How can this be done? Of course, through exploration in new areas, both worldwide, and within Russia.

The second element is to introduce innovations, which will also require enormous capital outlays. We could, of course, by investing these funds today, bring about an increase in outlays, but then this would once again raise prices and affect all macroeconomic indicators. On the other hand, there are already many who have investment experience. We can share the risks and invest, but for this, of course, investments must be protected. At this point in Russia, corporate law is fairly well-developed, and there is legal protection in place for investment. The law has in many ways gone farther than in other countries, including in the EU.

And this must be a two-way street. If we do not reduce costs for extraction, for transportation, for processing, then many projects will simply become unprofitable. We are talking about protecting investment in the Russian Federation, but of course we also need to think about protecting the investments of Russians in other countries, including those of the EU. Thank you very much.

# R. Simonyan:

Thank you, Mr Bogdanov.

Mr Sechin's presentation expressed the idea that one of the most important means of cooperation in extracting Russia's natural resources will be strategic partnerships. And such partnerships are being formed. Some are working out and some are not. The ones that are working out are obvious in any case. And the ones that are not working out are what everyone is talking about. Since we have Bob Dudley and Eduard Khudainatov with us in the room, I would like to pose this question: why did the strategic partnership between Rosneft and BP fail? Bob?

## R. Dudley:

It is a somewhat company-specific deal, but I think I'd like to come back to some of the words that Dan Yergin and Neil Duffin said about the nature of very, very long-term projects and investments in our industry.

Earlier this year—there are probably one or two people who might not have heard about it, though I think everyone else has—BP proposed what I think was a novel concept of cooperation between an international oil company and Russia's great state oil company, Rosneft, to pursue and begin the development of exploration in the Arctic, and strategic cooperation in other parts of the globe.

We were not successful in reaching a set of commercial conditions that were acceptable to all of the companies involved. I think though that the concept of a strategic partnership like this was good for Russia, good for the energy markets, and good for all of the companies involved.

Having said that, BP has invested in Russia for more than 20 years. These have been substantial investments, and they have been good investments. We remain solidly committed to investment in Russia, we remain committed to the important joint venture of TNK-BP, which I think will have a very bright future.

We remain committed to finding partnerships, such as the one we have with Rosneft in Germany, in the German refining sector. And as a company we remain committed to helping build managerial technological capability in supporting the area. So, I would say that a long answer to your question is: no new news on the subject, but we remain as firmly committed as ever to the future.

## R. Simonyan:

Thank you. Eduard?

#### E. Khudainatov:

President Medvedev, ladies and gentlemen.

Rosneft and BP have worked together for some time on projects such as Sakhalin-5 on the Sakhalin Shelf, and we have achieved positive results from exploration in the Russian Arctic. According to our agreement, this was to be a four-year project. We recently entered into a partnership for oil refining and distribution in Europe: these are our four plants under the Ruhr Oel GmbH project. Rosneft very much wanted this strategic alliance to happen, but unfortunately BP was unable to close the deal, and not because of any obstacles or legislation on the Russian side. Nevertheless, British Petroleum remains our partner, and we are continuing work on our existing projects. As concerns Arctic development, we are also continuing our work and are vigorously conducting activities after the end of our agreement. And in the near future, before the end of this year, we will come to an arrangement with our strategic partner. Thank you.

# R. Simonyan:

Thank you.

#### D. Medvedev:

May I say a few words?

## R. Simonyan:

Of course.

#### D. Medvedev:

You are having a very cruel discussion here. What do I mean? You are talking about the investment climate after calling in the Deputy Prime Minister, who oversees the industry on behalf of the government, and the President, who happened to stop by. This reminds me of a discussion between a cat and a mouse who have been locked in a room, and the mouse is asked: so, mouse, do you like the cat? Or am I not quite right? Do you like the investment climate in Russia, or do you have problems with it?

In all seriousness, these sorts of discussions are always very useful, because in certain nuances, and even in what is left unsaid, in the responses of our foreign colleagues most of all, we can discern what they do not like. First of all, there is always something not to like, and second, there are certain things that are usually not spoken about. But it is these unsaid things, these hints, that our government must analyse. I am referring to the creation of a regulatory framework and to participation by our foreign partners and investors in the relevant processes. That's very important.

# R. Simonyan:

Thank you. You also kept to the allotted time.

#### D. Medvedev:

I have a lot of experience.

## R. Simonyan:

Thank you. And now the most fun part of our session – the vote, as promised. First we will try to predict the price of oil for the coming year, and then the price of

natural gas. If you could please find your voting devices. After you hear the tone, select your chosen answer. You will have 30 seconds to vote. Not much time left: two seconds, one, out of time. Okay, we have decided. Would you like to see the results? The results, it turns out, are interesting.

#### D. Medvedev:

Very predictable.

## R. Simonyan:

We have spent the entire session talking about shock waves, but it seems that no one expects any – neither upward or downward. Well, let's hope to God that this is what happens. Okay, number two... voting on the price of natural gas. Here is the tone. And we're off. And after we finish voting, I will ask Alexey Miller to comment, since he was the only one of us to correctly guess the price last year.

#### D. Medvedev:

Maybe we should have just handed this thing to him and been done with it? Why do the rest of us need to vote?

# R. Simonyan:

We just need to check.

## D. Medvedev:

He should vote.

#### R. Simonyan:

Trust, but check. Okay. Pretty much the same thing, right? A more optimistic assessment of the prices (meaning higher prices) than last year. And essentially a preservation of the status quo. Mr Miller, what do you have to say?

#### A. Miller:

Mr Simonyan, last year we agreed to revisit our forecasts and our estimates. As you remember, when I gave my estimate at last year's vote, I used the words of Chekhov: "That cannot be, because it cannot possibly ever be". Almost 65% of the voters at that time said that the price of natural gas would be less than USD 300. And you know, I do not agree with the results of today's vote on the price of gas either. I can state that even the organizers...

## R. Simonyan:

They could not have imagined...

#### A. Miller:

Yes, I think not. I think that we needed to continue working with the scale we had previously, because at this point we see in the markets a growing trend, and this year we can expect new record prices for natural gas.

## R. Simonyan:

Mr Miller, can you give us a figure?

## A. Miller:

We expect that by the end of the year the price will reach 500 dollars per thousand cubic meters.

# R. Simonyan:

Okay, remember that everyone.

#### A. Miller:

I don't know whether that forecast will be borne out, but I can say that in all likelihood I am not mistaken in another prediction that I can make. Today Russia received an invitation: to join the International Energy Agency. I do not believe that Russia will join the International Energy Agency within the coming year. The International Energy Agency — as an organization that represents the interests of consumer countries — formulates their forecasts, their strategies, and their vision for development of the energy market. This is the value of the International Energy Agency. I believe that Russia must first and foremost develop an open and constructive dialogue with these countries. And, of course, returning to the topic of prices, I agree with the estimates presented in Mr Yergin's talk. This is the time of surprises and records, and perhaps new surprises and records await us in the energy market.

# R. Simonyan:

Thank you, Mr Miller. I will now declare the end of this session. We have done good work. Now we will see whether the forecasts come true. And regardless of who feels like the cat and who feels like the mouse, I believe that with open and effective dialogue, we will find mutually acceptable solutions. Thank you.