

Alexander Epishov: Sustainable Energy Development Requires Trillions of Roubles and Good Instruments



WHAT: X Moscow International Energy Forum «Russian Fuel and Energy Complex in the XXI Century».

WHERE: Moscow, «Manege» Central Exhibition Hall.

WHEN: 4-7 April 2012.

The jubilee Moscow International Energy Forum is going to bring together about 1,000 participants, including the leaders of the science-expert community, politicians, state figures and authoritative businessmen.

The participants of the plenary discussion will consider the global energy problems the world community face in the XXI century; they will also discuss the sustainable development concept as an integral strategic platform for improvement of the situation in the world.

According to the forum organizers, the discussion results represented as agreed assessments, principles and approaches, as well as recommendations to the international-scale decision-makers, will be documented as the Forum Concluding Declaration. This public document will become a sort of intellectual «block» offered by the forum participants to form the foundation of the new sustainable world order. Why the sustainable development is debated so much? What new topics will the delegates bring up? We talk about it with **Alexander Epishov, MIEF-2012 Principal Analyst.**

– This year, the Moscow International Energy Forum «Russian Fuel and Energy Complex in the XXI Century» celebrates its tenth anniversary. It implies some history, established links, rich experience, broad knowledge that enable us to pass to the new stage, says Mr. Epishov. I think that the major achievement of this 10-year period is the team of our partners, friends and like-minded persons who are sincerely willing to assist in improving our world. The forum has developed as an expert platform where representatives of the business community and authorities can openly discuss the key problems of the power industry and word their vision of future of this industry and other spheres. This year's main topic is «World Power Industry and Sustainable Development in the XXI Century». It will be considered by the plenum discussion, while the fourteen conferences and round tables will take it as the point of reference in examining more particular questions of the international cooperation and development of various fuel-and-energy complex branches.

I will try to substantiate the relevance of this topic, even though it is unnecessary, since the concept and notion of «sustainable development» are being widely discussed on all the international platforms both on the government level and in the public-expert community. By the way, in June 2012 in Rio-de-Janeiro, the UN-supported conference meaningfully named «RIO+20» will bring together the heads of over 100 countries, the chief executives of the world's biggest companies, prominent politicians, researchers and experts. This epoch-making conference will consider how

the international community plans to implement the sustainable development concept in more tangible manner than now. In particular, the conference is expected to offer much-anticipated large-scale solutions for promotion of green, carbon-free, economy.

Indeed, it has been over 30 years since the world turned to this question; hundreds of symposia and public forums, thousands of conferences and round tables have been organized regularly. But, unfortunately, the ideas and principles of sustainable development are still far from being implemented. The leading countries adopt strategic instruments and large-scale programs for development of green economy, energy saving and environment but they fail to change the situation in essence. In general, more profound consideration of the sustainable development concept - including in terms of the moral imperative of the XXI century, culture and social philosophy – leads to the conclusion that technological measures and administrative restrictions are not enough to solve the problem. If the question came to cardinal reduction of CO₂ emission, it would not be so troublesome. But the modern world is not technocratic only and the modern problems are not environment-related only. Rather, they are the tip of the iceberg.

Today, we can observe a systemic civilization crisis. And first of all, it impacts on the culture, spirituality and morality. Until people come to a radically new world outlook and awareness of their own personal responsibility for further generations, until they give up consumer paradigm, no serious crucial changes are possible. That is why, our current agenda reads only one principle imperative – survival. And it is not an exaggeration at all, since the global social-economic imbalance and the contradiction between the anthropogenic activities and wildlife have gone beyond the dangerous limit that marks where degradation of the life on Earth begins. This fatal process has already started and its scale and nature are getting more threatening year after year. In other words, we are not approaching to a global disaster, it is here already. However, it is a long-term process rather than an event. Today, the mankind seems to still have chances, if not to stop this process, at least, to make attempts to relieve it and minimize the consequences. Therefore, the power industry becomes a decisive factor in the context of sustainable future, as the access to cheap, safe and clean energy is the key to most modern world problems.

– Do you suppose that certain power industry sectors have to be frozen in order to diminish impact on the planet? For example, after the accident at Fukushima, the German authorities decided to close all the nuclear power stations.

– In speaking of this issue, we should treat the power industry more generally. Now, it would not be quite proper to consider harms or benefits of some technological segments of the power industry without a glance to the way the industry is connected to other life spheres. For example, the climate change, food security, access to fresh water, soil erosion, deforestation – all these phenomena are interrelated and the energy nearly always acts as a key element in these complicated processes. Today, almost 1.5 billion people in the world have no access to electric energy and technological heating sources; almost the same number of people heat their homes with wood and other organic materials. Thus, if we could speed up the technologic revolution and obtain a sort of eternal energy potion looking like a cutting-edge product or a way to make the unconventional energy greatly cheaper, it would become the magic key to open the way to success. The access to cheap and safe energy would dramatically change the life of some part of the mankind. That new life would not be so full of diseases and hunger, while the social stability would encourage development and prosperity.

The key approach of the sustainable development is to consider the interrelation between the environmental, economic, climate and social aspects. Today, we say that the climate change is provoked by the anthropogenic pressure on the environment: carbon emission hinders the planet heat removal and causes unprecedented natural balance deviations. Over recent years recent, developing technologies for making biofuel of agricultural products caused market shortage of the grain and other exchange-traded products. The shortage provoked the sharp rise in food prices that, on its part, led to social tensions and protest actions.

The oil price growth slows down the world economy and assets get forwarded to the speculative exchange sector, thus provoking instability, aggravating inflation and recessions. As a result, the living standards fall. That is how the energy issues transform to the problems remote from the power industry. Again, we expand the discussion and treat the power industry more generally, so to demonstrate the whole range of such interrelations containing the energy as a key factor. Now, in reply to the direct question about the dynamics of the global energy development, I want to stress that, over coming decades, fossil raw hydrocarbons will remain the main fuel for energy generation; however, the gas sector will see more considerable development since gas is more environment-friendly than oil and it can substitute the obsolete and polluting coal generation.

Then, it is worth noting that the renewable energy is developing at priority rates and steadily approaching to the threshold of commercial efficiency. The high oil prices make this process even more active. Apart from that, great efforts are being directed to brand new technologies – for example, cutting-edge technologies for coal burning. As for the nuclear industry, the German authorities' decision is a domestic decision of an individual government. The share of the nuclear industry in the world balance can hardly be overestimated. Moreover, the nuclear industry remains cleaner than the hydrocarbons burning technology. Besides, the nuclear energy sector has always offered high level of research-and-technological potential. Still, the tragedy at Fukushima must not be ignored – the safety requirements to nuclear reactors must be toughened.

– Over 70 % Russian generating capacities are worn out. Which point is more topical now: to update the technical potential, to establish a new energy structure or to replace the available strategies with something revolutionary?

– The energy infrastructure of Russia is far from perfection, it is obvious. As for the grids, we have recently seen major accidents with blackouts in the southern regions of the country, in particular, in the town of Novorossiysk. By the way, it was a striking example of the connection between climate and power industry. Though situations of that kind cannot be absolutely excluded in Europe, UN implements large-sale programs for introduction of the smart systems that provide flexible adjustment of energy access at peak-load hours, minimal loss and use of standby sources; while the loss observed in our grids is devastating. The situation is that the government does not have funds for principal upgrade of the grid complex, neither do energy companies. Surely, the available investment programs will make it possible to replace something, but we need trillions of roubles! For this reason, mobilization of investment in the distribution energy sector has become a most pressing topic. The Investment is sensitive to tariffs, while the tariffs are now considered in terms of politics. The reason is that the authorities, in preparing to the soon election, announce populist decisions about fixing the tariffs by the inflation rate; the domestic price for gas will be higher, therewith. All it implies a conflict of interests and, what is more important, restrictions.

The generation faces problems too. Today, we speak of new building projects but we should not forget about reconstruction, modernization, renovation of old turbines and boiler units. The trouble is that there is no one who really wants to undertake it. The forum program will include a round table to be attended by the technical managers of wholesale and territorial generating companies, big heating supply companies, design and contracting agencies, equipment manufacturers. We are going to examine the current problems and the solutions that could guide further measures. The demand for electric energy is growing. We must develop new directions and explore new territories. Let us suppose that Western Siberia keeps considerable gas reserve. But the investors do not take interest in developing these territories yet; the reason is missing infrastructure, labor force and specialists. Even though the state has formulated its attitude to exploring this region, no real progress or projects are actually observed. In my opinion, the election will bring some news in this respect. Though we speak of giving up the traditional resources, they still remain the goose that lays golden eggs.

– Could the forum discuss new opportunities of interrelations with the foreign states for mobilization of new technologies, establishment of joint ventures?

– I believe the international energy cooperation to be an extremely important vector for the development of the fuel-and-energy complex of Russia. There are a few essential aspects. First, the fuel-and-energy complex is the main source of export income. We have to admit: the economy's dependence on resources is real and it should be overcome. Still, we should bring advanced technologies to our fuel-and-energy complex by uniting resources with innovations, so we could go beyond exporting raw oil and gas only and offer advanced petroleum products – car fuels, engine oils, addition agents, petroleum/gas chemistry products. Then, we should struggle for our market share. 90 % our energy resources are transferred to Europe but UN is going to diminish its dependence on the supply from Russia and turn to active development of renewable energy industry. Though, within this decade, the gas consumption in Europe will grow, our total share will be reducing despite certain physical growth of the supply. But even this share is claimed by Russia, as well as by Turkmenistan, Azerbaijan, Iraq, Libya, Algeria and other countries. Russia has to fight for its share. One of the possible ways is to diversify the supply and turn to the Orient markets. This direction is being thoroughly worked out: Russia and China concluded a long-term partnership agreement on gas supply; programs for mutually beneficial cooperation with the Asia-Pacific countries are being elaborated. The coming years will see first-priority development of the Far East's energy and transport infrastructure that will precipitate opening the energy markets of China, South Korea, Indonesia. By the way, our forum will conduct a round table devoted to the eastward vector of our energy strategy.

Russia has joined the World Trade Organization. Despite WTO mechanisms do not actually govern the energy resources trade (it is done by the Energy Charter), it can be expected that the new status of Russia will stimulate the international trade, including energy commodities. Russia has withdrawn from the Energy Charter Treaty but it keeps trying to establish new legal mechanisms for energy security, defending the key principle: equal security for consumers and suppliers. It is also quite possible that new standards will be founded on the EC platform provided that the proposals of Russia are considered.

However, I would like to return to the question of the sustainable development and mention that the economic and legal mechanisms of energy security should be widely introduced into all the economic segments and life spheres. Meanwhile, the aggregate energy consumption and energy content of our life should reduce constantly. Otherwise, the desired effect would be unachievable. Let us suppose that we introduced a new technology and reduced energy resources consumption. Then we spent the saved money to buy a car with better engine power or more advanced manufacturing equipment. It turns out that we saved energy to begin another series of energy consumption. Taking account of this cycle and «back run» of energy-saving, one has to realize that the process should be comprehensive and we should always watch the ultimate result. This context requires, first of all, speaking of a new model of energy consumption. The role taken by the expert community and independent institutions in this process is absolutely unique: they both promote energy saving and give meaningful recommendations to the decision-makers in the world of economics. In this respect, our forum is the ideal platform for presenting new ideas and approaches to the current development problems. MIEF is an element of civil society, an independent platform designed for interaction of those who know what and how to do, those who are vested with power and who make important decisions. We do not invite high-ranked officials proceeding from the importance of their offices; instead, we welcome the representatives of the authorities who know a subject or a specific topic well. By all means, the notion «expert» is applicable both to representatives of the authorities and to businessmen: what is really important is their experience and competence, their ability to voice specific reasonable suggestions.

– Who will participate in the forum?

– About 70 % are the traditional participants, our friends, foreign colleagues, partners and sponsors who support us. The traditional Russian partners are Gazprom, Rosneft, Russian Railways, Surgutneftegaz, FGC UES, regional companies. The most precious thing is that over three years the forum has been attended by the leading Russian experts: RAS academicians, university professors, heads of major industry institutes, experts in international energy security. This year, we are going to hold a big conference participated by representatives of the leading institutes and universities – «Higher Professional Education for Sustainable Development of the Power Industry: Conceptual Approaches, Models and Strategies, Good Practices». The event will be anchored by Sergey Serebryannikov, Professor, Doctor of Engineering Sciences, Rector of the National Research University «MPEI». At the conference, the experts will state their views on the changes the universities and institutes have to undergo to train specialists capable to implement the sustainable development concept.

Apart from that, we welcome experts in energy efficiency, energy saving, self-regulation. We strive for covering various aspects of the development of the fuel-and-energy complex spheres and energy markets. In particular, the forum will hold a conference on strategic aspects of electric-power industry development just like at the previous fora. One of the sessions will be devoted to development of the grid complex. The session partners are FGC and Russian Energy Agency. There will be a round table to consider reconstruction of the thermal power stations. We are going to pay attention to international cooperation, energy diplomacy, energy security concept, clean technologies, green energy, investment, energy strategies adjusted for long-term development trends. We expect that among the invited delegates there will be industry specialists, researchers, experts, businessmen, agents of foreign companies.

Interviewed by Irina KRIVOSHAPKA

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