

Industrial Weekly

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Business Information
In A Global Context



ПРОМЫШЛЕННЫЙ
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Energy against Crisis Technologies of success and optimism

WORLD CRISIS FORCES TO APPRECIATE POSITIVE TENDENCIES AND REAL POTENTIALS OF ECONOMY. THE POWER, CERTAINLY, IS ONE OF THE MOST EFFECTIVE TOOLS OF OVERCOMING OF GLOBAL FINANCIAL AND ECONOMIC PROBLEMS. AND RUSSIA IN THIS ASPECT CAN AND SHOULD BECOME A POWER SUPPORT OF THE INTERNATIONAL ANTI-RECESSIONARY PROCESS.

And it is very important, that the Russian power shows strategic stability and continuity of investment policy. Dmitry Medvedev will continue to support and develop the economic priorities made by Vladimir Putin.

This issue of the special project "Industrial Weekly" is meant to give an example of the most promising players of the Russian power industry market. We want to make these companies closer and more understandable by telling about their role in developing and reforming the industry, their invest-



ment projects, business principle, etc. In other words, we would like to say that there are good players in the Russian power industry to deal with! Russia is the fourth

largest energy market in the world after the USA, China, and Japan. The status of energy superpower declared by Russia presumes first of all a complex of certain energy responsi-

bility and initiative in establishing energy mutual understanding. And this very issue i.e. energy mutual understanding is the subject of the present project. It is quite evident

that the world crisis will give a new impulse to development of Russia — EU energy dialogue bringing it to a form of international energy communication according to experts.

IPS/UPS and UCTE: Synchronous Interconnection Participants of the Feasibility Study reported

INTERNATIONAL CONFERENCE "PROSPECTS OF EAST-WEST POWER SYSTEMS INTERCONNECTION (RESULTS OF FEASIBILITY STUDY "SYNCHRONOUS INTERCONNECTION OF IPS/UPS WITH UCTE") TOOK PLACE IN MOSCOW ON APRIL 2, 2009. THE CONFERENCE WAS ORGANIZED BY SYSTEM OPERATOR OF THE UNITED POWER SYSTEM (SO UPS) AND INDUSTRY ROUND TABLE FOR COOPERATION WITH THE EUROPEAN UNION WITH THE SUPPORT OF THE CIS ELECTRIC POWER COUNCIL, MINISTRY OF ENERGY OF THE RUSSIAN FEDERATION AND THE RUSSIAN NATIONAL COMMITTEE OF CIGRE.

The conference presented and discussed results of three years work on the Feasibility Study and became the first opportunity for experts not directly involved in the project to hear of new developments and to discuss them with all the key participants of the study. The audience of the conference was

represented by professional and scientific community and journalists.

The work started when Cooperation Agreement was signed in Brussels on April 19, 2005 on developing the Feasibility Study of the synchronous interconnection of the two largest electric power systems on the Eurasian continent: IPS/UPS and UCTE. The parties to the Agreement were the UCTE Consortium consisting of 11 European transmissions system operators, and the IPS/UPS Group of Companies comprising 8 power companies of the CIS and Baltic countries. The study, unprecedented in terms of its scope and complexity of objectives, was to determine whether synchronous interconnection of the IPS/UPS and the UCTE was feasible, requirements that should be satisfied by both parties to ensure successful interconnection and necessary expenses. In 2008 the work on the project was completed.

"The basic conclusion set forth in the document is that the synchronous interconnection of IPS/UPS with UCTE is technically viable," — said Boris Ayuev, Chairman of the Board of SO

UPS in his welcoming address to the conference participants.

A number of working groups (WG) were involved in the study. Heads of the working groups reported on the results of their research and methodologies applied. The following speakers made presentations at the conference: Alexander Iliencko, Director of Dispatching Technologies Development, SO UPS and Head of WG "Network Operation and Organization" on the IPS/UPS side; Sergey Kouzmin, Head of Foreign Relations Department, SO UPS and Project Manager of Feasibility Study on the IPS/UPS side; Yuri Kulikov, Head of International Projects Unit, Foreign Relations Department, SO UPS and Head of WG "Steady State Analysis" on the IPS/UPS side; Valentin Gerikh, Head of Department of Power Market Analysis, INTER RAO UES and Head of WG "System Dynamics" on the IPS/UPS side; and Pierre Bernard, Secretary General of Elia Group and Head of WG "Legal Issues" on the UCTE side.

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Deutsche Messe
Hannover · Germany

IDGC of Centre and Volga Region is a public company

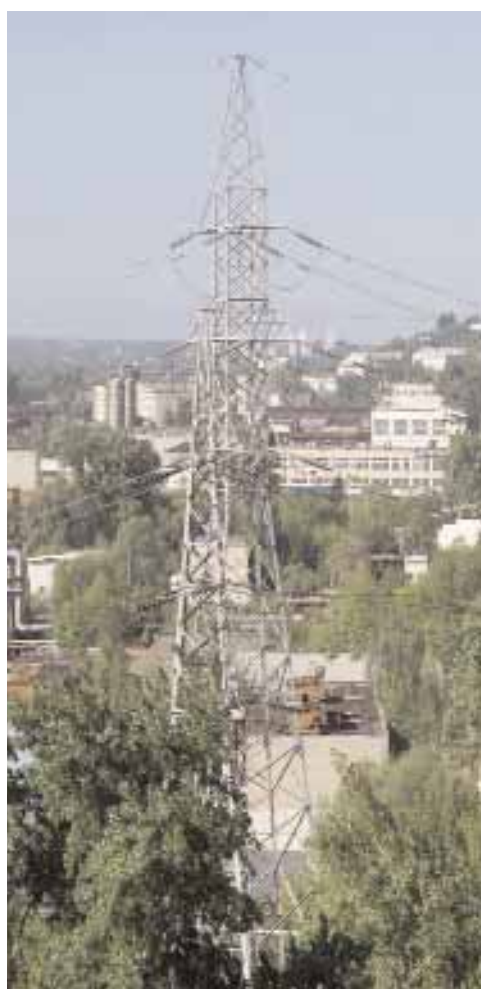
IDGC OF CENTRE AND VOLGA REGION, JSC, IS A UNITED OPERATIONAL COMPANY WHICH IS THE MAIN SERVICE PROVIDER OF ELECTRIC POWER TRANSMISSION AND TECHNOLOGICAL CONNECTION TO ELECTRIC GRIDS IN NINE REGIONS OF THE RUSSIAN FEDERATION.

IDGC of Centre and Volga Region, JSC, is a natural monopoly entity. The company possesses 0.4-110 kV electric grids and the equipment which provides a significant part of all electric power transmission of the service zone.

The regions of IDGC of Centre and Volga Region activities which accommodate 10% of the population of Russia are characterized by a stable gross regional product that allows to project the further demand for electric power.

In 2008 the power company's earnings from selling of services equaled \$946.4 million; net profit was \$42.7 million; total assets were \$1.68 billion. The fixed asset value exceeded \$1.2 billion.

At the moment IDGC of Centre and Volga Region, JSC, is a large power company which carries out the investment program and target corporate policy in conformity with the development strategy. Supplying reliable and qualitative electric power to consumers, the company bears the full responsibility before shareholders and clients for industrial, economic and financial performance. The company shares are included in the B Quotation List of MICEX and RTS Russian stock exchanges.



From Balakovskaya NPP to Kurdum

CJSC IES-ENERGOSTROY-ENGINEERING INITIATED CONSTRUCTION AND ERECTION WORKS OF 500 kV HIGH VOLTAGE LINE FROM BALAKOVSKAYA NUCLEAR POWER PLANT TO KURDUM SUBSTATION EXTENSION IN THE SARATOV REGION. CJSC IES-ENERGOSTROY-ENGINEERING IS THE GENERAL CONTRACTOR OF THE PROJECT. THE CUSTOMER OF THE PROJECT IS OJSC FEDERAL GRID COMPANY UES. PROJECT IMPLEMENTATION TERMS: NOVEMBER 2008 — DECEMBER 2011.

On March 19 installation of the first foundation for intermediate support of ПБ5 type No 593 was completed in the Balakovskiy Region. At present another seven foundations have been installed.

The works are executed by OJSC Sibelectrostroy trust (a part of IES-Energostroy-Engineering group of companies). The designed 500 kV

high voltage line spreads from Kurdum Substation through the territories of the Tatischevskiy, Saratovskiy, Voskresenskiy, Marksovskiy and Balaklavskiy Districts of the Saratov Region. The length of the high voltage line comprises 202 km.

This line is being constructed in order to transmit power from Balakovskaya Nuclear Power Plant when it generates 5000 MW and more and for increase of transmission capacity of intersystem con-

nections Middle Volga — Center — North Caucasus.

Within the framework of the project the unique crossing over Volga River with up to 150 meters supports installation is planned to be constructed. The length of the crossing will be about 4.5 kilometers. Within the framework of 500 kV Kurdum Substation expansion the reconstruction of cells of 500 kV, 220 kV, 110 kV, 35 kV outdoor switchgears and installation of 500 kV shunting reactors are planned.



IPS/UPS and UCTE: Synchronous Interconnection

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In the course of the study the working groups carried out steady state load flow analysis and transients analysis, examined low frequency oscillations, developed power and frequency control models for the planned interconnection and IPS/UPS — UCTE system operators interaction schemes under conditions of synchronous operation. The leading industry related High Voltage Direct Current Power Transmission Research Institute (NIIPT) was invited to participate in the research.

In order to calculate transients and oscillations, a dynamic model of the IPS/UPS and UCTE interconnection was created. It was used to test different conditions for electric power exchange.

The study brings to evidence that the synchronous interconnection of IPS/UPS with UCTE is feasible in a long-term perspective upon implementing a number of technical, operational and organizational measures as well as adoption of relevant legislation in the CIS and EU countries. The synchronous interconnection of IPS/UPS with UCTE will also require compliance of automatic frequency control systems in Ukraine, Belarus, Moldova, and the Baltic states, which will be involved in the transit of electric power from Russia to Europe, with the European standards.

The project participants agreed that, as the implementation phase for identified measures is recognized as a long process, the synchronous interconnection should be considered as a long term perspective. With a view of developing electricity trade, construction of High Voltage Direct Current (HVDC) links between the interface countries may be recommended as a medium-term and short-term alternative solution.

Information about Participants of the Project

Experts from the following companies in the CIS and Baltic states participated in the study on the IPS/UPS side: SO UPS (Russia), NPC UKRENERGO (Ukraine), Belenergo (Belarus), Moldelectrica (Moldova), Latvenergo (Latvia), Lietuvos

Energija (Lithuania), Eesti Energia (Estonia), KEGOC (Kazakhstan).

The UCTE Consortium was represented by experts from the following EU companies: E.ON Netz (Germany), RWE (Germany), Vattenfall Europe (Germany), ELIA (Belgium), MAVIR (Hungary), NEK (Bulgaria), PSE (Poland), Red

Electrica (Spain), RTE (France), SEPS (Slovakia) и Transelectrica (Romania).

The leaders of the project were appointed on each side to oversee project coordination. UCTE was represented by E.ON Netz, Germany, and IPS/UPS — by SO UPS, Russia. Over 70 experts from 18 countries were involved in the project.



Information about Electric Power Systems

UCTE

The Union for the Co-ordination of Transmission of Electricity (UCTE) is the association of transmission system operators in continental Europe, providing a reliable market base by efficient and secure electric "power highways". UCTE unites electric power companies that provide synchronous work of energy systems of 24 European countries: Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Germany, West Denmark, France, FYROM, Greece, Italy, Luxemburg, Montenegro, Netherlands, Poland, Portugal, Romania, Serbia, Slovak Republic, Slovenia, Spain, Switzerland and Hungary.

Through the networks of UCTE, about 500 million people are supplied with electric energy; annual electricity consumption totals approx. 2300 TWh.

IPS/UPS

The CIS and Baltic states electric power system IPS/UPS unites 14 states: Azerbaijan, Belarus, Estonia, Georgia, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Mongolia, the Russian Federation, Tajikistan, Ukraine, and Uzbekistan. The exchange of electric power is carried out with Norway, Finland, Poland, Turkey, Afghanistan, and China.

The supreme executive body of the electric power system is the CIS Electric Power Council. The goal of this organization is to provide for a reliable power supply for CIS countries by applying advantages of the unified technological recourses of electric power industry and organization of stable synchronous work of national electric power systems. The aggregate installed generation capacity of the IPS/UPS as of 2007 was 337 GW, electric power consumption — 1 285 TWh. Population living on the territory of electric power system exceeds 280 million people.

System Operator of the United Power System of Russia

SO UPS is a company that carries out operative dispatching management of all the units constituting the Unified Energy System of Russia. The company also performs the following functions: provides for functioning of electric power markets and synchronous operation of UES of Russia with electric power systems of other countries, coordinates and monitors implementation of the investment programs in the industry. Moreover, SO UPS is responsible for monitoring of technical conditions of the power units and investigates cases that may affect the UES reliability.

April 2009

Russia's Energy Ministry: Energy Efficiency is Our Priority

Sergei Shmatko: "It is impossible to fulfill the state energy-saving programme without close cooperation with foreign partners"



THE AIM OF THE ENERGY POLICY LED BY THE RUSSIAN ENERGY MINISTRY IS TO USE NATURAL ENERGY RESOURCES AND POTENTIAL OF THE ENERGY SECTOR AT MOST EFFICIENTLY FOR THE PURPOSE OF ECONOMIC GROWTH AND RAISING THE STANDARD OF LIVING IN RUSSIA. RUSSIA'S ENERGY MINISTER SERGEI SHMATKO TOLD THIS IN HIS INTERVIEW TO INDUSTRIAL WEEKLY.

— *Mr. Shmatko, what objectives does the Russian government set promoting the wide introduction of energy-saving technologies?*

— Experts say the global demand for energy annually grows by 1-1.5% even considering the current crisis. Given this trend, the world energy consumption will increase 40-50% by 2030. How can this consumption growth be met? There many ways to do it. But one of the best ways is introducing energy-saving technologies.

Now, the situation on world markets is difficult, but any crisis ends sooner or later. The economic growth in Russia, which will inevitably follow the crisis, will result in the largely increased demand for energy resources.

— *Does Russia pay enough attention to this sphere today?*

— The first resolution of the Russian government signed by Vladimir Putin in 2009 directly concerns the state energy-saving policy. The Russian authorities are paying such a serious attention to this sphere not by chance.

At present, the energy intensity of the Russian industry is higher than in developed countries. Various energy losses due to the low efficiency of equipment, transportation and consumption result in billions of rubles of losses in Russia.

We face a very clear task — to reduce the energy intensity of the gross domestic product at least by 40% by 2020 as compared to 2007. Only working in this direction, we can provide rational and environmentally-friendly employment of energy and energy resources in present conditions.

The law 'On energy-saving and raising economic efficiency' will make this work systematic. This document will allow solving problems of rating energy consumption and more efficient elaboration of energy-saving programmes on the federal, regional and municipal levels.

— *What other steps can one take to introduce energy efficient technologies in all spheres?*

— The development and approval of the state energy-saving programme must become one of the objectives. It will be based on typical energy efficient innovation projects, chiefly in the production sphere and housing industry.

The wide introduction of energy-saving lamps, equipment and technologies will

allow considerable energy-saving and largely reduce the crime level in Russian cities.

Other directions of work include rational and efficient employment of energy resources in the industry, introducing new and modernizing old equipment and efficient employment of associated oil gas.

Solving these tasks will allow raising the energy-saving level in Russia by 30% by 2015 and almost doubling this figure by 2020.

— *The introduction of advanced technologies requires cooperation with other countries. What is the situation in this sphere?*

the participants of the energy market.

Now, we are considering a number of joint projects associated with creating legal and

the initiative of Siemens supported by Russia's Energy Ministry, administration of the Sverdlovsk Regions and town council of Ekaterinburg

materials and services using energy-efficient and energy-saving equipment and technologies, on the reduction of negative environmental impact of the fuel-and-energy industry as well as on informational exchange and specialists training.

Thus, the city authorities will have the analysis of the existing situation and the plan of raising the energy efficiency including the long-term concept and real steps to promote energy saving in Ekaterinburg.

It is a pilot project carried out within the framework of the Russian-German technological cooperation basing on

EXPERTS SAY THE GLOBAL DEMAND FOR ENERGY ANNUALLY GROWS BY 1-1.5% EVEN CONSIDERING THE CURRENT CRISIS. GIVEN THIS TREND, THE WORLD ENERGY CONSUMPTION WILL INCREASE 40-50% BY 2030. HOW CAN THIS CONSUMPTION GROWTH BE MET? THERE MANY WAYS TO DO IT. BUT ONE OF THE BEST WAYS IS INTRODUCING ENERGY-SAVING TECHNOLOGIES.

economic conditions for raising the energy efficiency and employment of renewables in Russia. In addition, we plan to work out and implement the

on making this major industrial centre an energy efficient city.

On February 2, 2009, a four-party agreement on the



— It is impossible to fulfill the state energy-saving programme without serious cooperation with foreign partners.

Germany is our reliable partner and Russia maintains very close relation in the energy sphere with it.

Germany is the world leader in environmental pro-

Russian-German educational programme in the sphere of energy-saving, energy efficiency and renewable energy sources, modernize the energy infrastructure and improve the ecological situation in some regions in Russia by introducing energy efficient equipment and technologies.

— *What real examples of*

cooperation between the Russian Energy Ministry, government of the Sverdlovsk Region, administration of Ekaterinburg and Siemens in the sphere of research and introduction of energy-saving technologies in Ekaterinburg was signed in Moscow.

— *What results do you expect from this cooperation?*

— The research works will result in recommendations on the employment of advanced

the decisions of the chiefs of the both countries taken in October 2008 in St. Petersburg during bilateral consultations. It is a bright example of our joint capabilities to introduce energy-saving technologies in one constituent part of the Russian Federation. We think such projects should form the basis of the mutually-beneficial Russian-German cooperation in the sphere of energy efficiency.

PRACTICAL STEPS IN THE RUSSIAN-GERMAN COOPERATION IN THE SPHERE OF ENERGY EFFICIENCY MAY HELP OVERCOME THE ECONOMIC CRISIS AND BOOST THE ECONOMIC DEVELOPMENT AFTER IT, CHIEFLY BY THE EMPLOYMENT OF INNOVATION ENERGY-SAVING TECHNOLOGIES CREATING NEW WORK PLACES AND RAISING THE COMPETITIVENESS OF PRODUCTS.

tection, climate change and development of energy efficiency and saving policy.

In the beginning of this year, the Russian-German Energy Agency was set up, which is a quite timely and important step.

Considering rich experience accumulated by Germany, Russia expects that this agency will help widen economic ties and create firm international cooperation of

such cooperation could you name?

— Practical steps in the Russian-German cooperation in the sphere of energy efficiency may help overcome the economic crisis and boost the economic development after it, chiefly by the employment of innovation energy-saving technologies creating new work places and raising the competitiveness of products.

I would like to mention



ELSIB: direction to development

ELSIB IS ONE OF 295 RUSSIAN COMPANIES SELECTED FOR FEDERAL LIST OF STATE SUPPORT. LOCATED IN SIBERIA ENTERPRISE PRODUCES LARGE ELECTRIC MACHINES: GENERATORS, AC MOTORS AND OTHERS. DURING 55 YEARS OF WORK THERE WERE DESIGNED AND PRODUCED MORE THAN 800 TURBOGENERATORS WITH TOTAL CAPACITY 70 000 MW, 158 HYDROGENERATORS WITH TOTAL CAPACITY 16 000 MW, TENS OF THOUSANDS OF HIGH-VOLTAGE ASYNCHRONOUS MOTORS WERE SHIPPED TO 54 COUNTRIES. TODAY ABOUT 30% OF GENERATING CAPACITIES OF RUSSIAN POWER STATIONS FALLS ON GENERATORS OF ELSIB.

Increasing world crisis, deterioration of investment climate forced Russian power

companies to reduce their costs on new construction and reconstruction of their capacities. ELSIB having taken a number of timely anticrisis measures continues to enlarge its order stock in these conditions. In 2009 the company will finish the manufacture of the leading air-cooled generator of 160 MW capacity that will provide with electricity Olympic objects in Sochi. This year

the plant will launch into production new large orders of RusHydro which also will provide the reliable energy supply of Russian south. Transneft exploited motors of Siberian plant for a long time and today places orders for design of new ones for pipe lines. All mentioned above let ELSIB look into the future with confidence and continue the innovative way of development.



OJSC "MOESK": 4 years of successful performance!



OJSC "MOSCOW UNITED ELECTRIC GRID COMPANY" IS THE LARGEST INTERREGIONAL DISTRIBUTION GRID COMPANY OF THE COUNTRY WHICH IS AMONG THREE LEADING ENERGY COMPANIES AND AMONG 30 LARGEST INDUSTRIAL ENTERPRISES OF THE RUSSIAN FEDERATION. NOW OJSC "MOESK" ATTENDS 98% OF MOSCOW CONSUMERS AND 95% OF THE MOSCOW REGION CONSUMERS. THE

COMPANY MAIN ACTIVITIES ARE RENDERING OF SERVICES ON ELECTRIC ENERGY TRANSPORTATION TO CONSUMERS AND TECHNOLOGICAL CONNECTION TO ELECTRIC GRIDS.

Yury Trofimov, the Company General Director, told at The VII All-Russia Energy Forum "Thermal Energy Complex of Russia in the XXI Century" that from 2005 to 2008 the company had invested over 91 billion rubles in development of Moscow and Moscow region electric grid facilities development. Before the year 2005, when the electric grid facilities of the region belonged to "Mosenergo", the investments in the grids development had not exceeded 3.5 billion rubles a year. In the beginning of the year 2006, 95% of the Moscow feeding centers were overloaded; connection of consumers to these centers stopped.

The OJSC "MOESK" investment program was developed by power specialists taking into account the development rates of the Moscow region. Within its realization during 2005-2008, more than 9,112 MVA of capacities, around 3,000 km of transmission lines were put in operation; the reserve for capacity of more than 900 MVA was created. The objects which were put in operation provided a connection of new consumers and essentially unloaded the existing feeding centers and transmission lines.

In 2005 the total capacity of new subscribers was only 50 MW; in 2008 it highly increased: the consumers for almost 500 MW were connected to the electric grids of the Company. Realization of the large-scale investment program of OJSC "MOESK" has allowed to raise reliability of electric power supplies of consumers of the Moscow region.

Extreme engineering

One of the largest projects



THERE IS ONE OF THE LARGEST PROJECTS IN THE RUSSIAN POWER ENGINEERING — THE CONSTRUCTION OF THE «POWER ISLAND» OF NYAGAN STATE REGIONAL POWER PLANT /SRPP/ ("TURN-KEY" CONSTRUCTION AND ERECTION OF THREE COMBINED-CYCLE POWER UNITS CCP №№ 1, 2 AND 3: 3x410MW) IN AUTONOMOUS DISTRICT OF KHANTY-MANSY.

General Contractor (EPC-contract) — an engineering company "E4 Group". Customer — TKG-10 (Major stockholder — Fortum).

«Rough local environmental conditions, the remoteness from big cities, poorly-developed transport infrastructure impose super-strict requirements for the experience and staff qualification upon the General Contractor. Such a large project in the north region and under the very climatic conditions is going to be implemented for the first time since Soviet period in Russia and this implies very high level of responsibility for our company» — says Peter V. Bezukladnikov, General Director of JSC "E4 Group".

The construction of SRPP will provide for further economical development of the region and the country as a whole: starting from timber industry to the project being extensively deployed «Ural the Industrial — Ural the Polar».



IX INTERNATIONAL SALON OF INNOVATIONS AND INVESTMENTS

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Mobile Energy

Oleg Bragin: "We are looking into the future of our company with optimism"



NEW ECONOMIC REALITIES MAKE US RECONSIDER A NUMBER OF ELEMENTARY ECONOMIC TRUTHS. FOR EXAMPLE, WE HAVE ALWAYS BELIEVED THAT THE FUTURE OF ELECTRIC POWER GENERATION IS AFTER GIGANTIC STATIONS. BUT ACTUALLY, THE CRISIS AND THE LIFE HAVE PROVED THAT THE MORE MOBILE AND FLEXIBLE THE WAYS OF SUPPLYING ENERGY TO CONSUMERS ARE, THE MORE OPPORTUNITIES AND THE HIGHER PROBABILITY OF SURVIVAL A BUSINESS HAS AND THE MORE RELIABLE AND STABLE IT IS. AT LEAST, THE EXPERIENCE OF THE RUSSIAN COMPANY "MOBILNYE GAZOTURBINNYE ELEKTRICHESKIE STANTSII" (JSC "MOBILE GAS-TURBINE POWER PLANTS") IS AN EXCELLENT EXAMPLE OF APPLYING NON-TRADITIONAL SOLUTIONS. THIS WAS THE TOPIC OF OUR DISCUSSION WITH THE GENERAL DIRECTOR OF THE COMPANY, OLEG BRAGIN.

— *Oleg Valentinovich, your company is young but it is well known in the world of power industry...*

— JSC "Mobile Gas-Turbine Power Plants" was set up in 2006 as a 100% RAO "United Energy System of Russia" associated company. Our first project was installing mobile gas turbine power stations in the Moscow region to support the reliability of the region's power system in the period of peak demand. Then other projects came, we grew and acquired

THE POSITIVE ASPECT OF THE CRISIS IS THAT IT SHAKES THE ECONOMY, IN A GOOD SENSE. IN ORDER TO SURVIVE THE CRISIS NEW TECHNOLOGICAL BREAK-THROUGH IS NEEDED. THE MARKET PLAYERS HAVE TO RESPOND IMMEDIATELY TO ANY CHANGES IN THE ECONOMIC ENVIRONMENT.

experience. Today the company has 12 operating complexes of mobile gas turbine stations of 22,5 MVt each. We have almost three years of experience in operating specific equipment, and we've got a good team of professionals. We can work with the equipment produced in Russia and abroad, we cooperate with Russian and western suppliers.

Our strong point is based on implementing projects for

installation and putting into operation mobile gas and turbine stations as well as running and maintaining operating mobile power stations. Under this concept we carry out the dislocation of our mobile power stations into new sites of peak demand areas. Besides that, on consumers' demand we construct, operate, and maintain gas turbine power stations of middle and small capacity. We carry out engineering works and project management on contractual agreements.

project we acted as general contractor for the first time.

As for the current year, we've got a lot of work as well... This summer we plan to put into operation three mobile gas and turbine stations in Dmitrov city (Moscow region), and this will enable us to cover the deficit for electric power capacity in the region and to avoid switching off power in case of emergency. Besides that, we consider a possibility to install two new mobile stations in the south of Russia — in the resort



— *What can you say if we compare the operation of the company in 2008 and this year when everyone is speaking about crisis?..*

— The past year was very important for the development of our company, we expanded the geography of our activity, entered new regions, namely Krasnodar region and Primorje. We entered the Market Advisory Board and this enabled the company to participate in the trade of electric power and in the wholesale market.

When moving our facilities into Krasnodar region we managed to make true the concept of mobile energy. Per se, by moving two stations from Moscow region into Novorossiysk, we have solved a major problem of power

city of Anapa. This project is mainly based on an extremely successful experience of using mobile power stations in Novorossiysk. We also pay a lot of attention to new technological opportunities, in particular, in applying alternative types of fuel, say liquefied gas.

— *Do you work only on centralized orders?*

— Not only. In the Company there is a commercial management board which is involved into the search of new commercial projects. If initially, we worked with projects related to energy problems of regions, now we also work with a number of projects related to specific needs of the Industry. Every project has its own specific nuances. For instance, a paper mill needs its turbine to produce steam. Oil corporations are interested in power stations operating on accompanying gas which is produced at oil production. Our station being a nucleus gets additional equipment required by every specific project. That is way, every project is unique...

— *They say about creating a certain structure of rapid response on the basis of "Mobile Gas-Turbine Power Plants"...*

— An idea of creating a government structure for power security of the Russian Federation is being discussed in the government now. A so called "Power Ministry for Emergency" or as you said rapid response structure. Such structure is in demand as

reliable electric power supply (especially, for significant social and infrastructural units) reserve sources are needed. This is also a must according to technical operation regulations. But not everyone and not everywhere can afford to have such a source of reserve power. That is why, a government company should be set up to support the reliability of units of specific needs as well as crucial events on lease terms.

— *Are you speaking of mobile units?*

— Yes, mobile units. But not large stations as mobile gas and turbine stations but smaller ones from 200-300 kVt up to 6 kVt. Such equipment might be used in a situation of power supply break. I'd like to emphasize the importance of this project for the country and especially, in the period of crises. The implementation of the said program will result not only in the increase of reliability of power supply and strengthening of the energy safety of the country, but also in creating additional jobs, development of national technologies for energy machine building, etc. Industrial works for creating in Russia necessary stations are being held, the most serious companies are involved in the project say "United Aircraft Corporation".



— *With what western producers do you cooperate most fruitfully?*

— We have been successfully working with "Pratt&Whitney". We have bought 15 stations produced by their company, plus we supplied two turbines for "Far-Eastern Generating Company" under our project in Vladivostok that I mentioned above. Now we working on putting in order maintenance services for this equipment. In spring we carry out the first scheduled maintenance. We do not have any claims to this equipment, we are happy with it. But we try to diversify the

supplies. We understand that we need to support Russian producers and we actively do that by participating in projects for creating and developing our own local models.

— *What are your requirements for foreign suppliers?*

— First of all, we are interested in reliability and economic efficiency. These are basic requirements set by power companies to the market of power equipment producers. Besides that, it should be technological, easy in operation, and cheap in maintenance... You may be offered an equipment for "a couple of pennies" but after-maintenance will cost you dollars. Moreover, producers should take into account the specific character of our turbines which like Kalashnikov automatic machines should operate in any conditions.

Another important aspect: all power equipment being imported into Russian market should be certified. This is a producer's responsibility. In 2006 our partners "Pratt&Whitney" certified the whole line of products that we work with.

— *What changes does the crisis bring into your company? What is the positive side of the crisis, in your opinion?*

— The positive aspect of the crisis is that it shakes the economy, in a good sense. In

difficult part. And in our case we focus on searching new projects.

— *And what about staff reduction?*

— We do not plan this... All our units operate on a duty cycle. It means that any moment an incident or an accident occurs the person on duty should launch an electric power station. Additionally, for putting new units into operations we need highly qualified specialists who will maintain them. We do not plan to reduce the staff but hire and train new people... The bulk of the company is young people under 30 years old.

I'd like to mention that our team of "Mobile Gas-Turbine Power Plants" is one of the factors of our high competitiveness. To create a strong and professional team we hire promising graduates from the best power universities of Russia as well as professionals with many years of experience in the power sector. Operators working on sites are trained to operate and maintain mobile gas turbine power stations at our special-purpose courses. After training the specialists get certificates issued by a company-producer to verify their qualification to work with the specific type of equipment. Every year the operations staff take in-house improvement of skills and anti-accident train-

order to survive the crisis new technological break-through is needed. The market players have to respond immediately to any changes in the economic environment. Thus, for example, thanks to structural changes we set up a special-purpose management board in our company aimed at search for new contracts. We know that the power consumption decreases in the crisis, and (in spite of the fact that there is always a peak demand and mobile power stations are always in demand) a general tendency is that consumers have less money. The client search is a

Such an approach in organizing training enables us to set up any ambitious tasks and we may be sure in the results of our work.

— *How do you estimate further prospects for the company?*

— We are looking into the future with optimism. New projects will come, and we will continue to expand and strengthen our team. Besides that, we've got big plans concerning a new government structure that I've mentioned above. We are sure that "Mobile Gas-Turbine Power Plants" will cope with everything.

New economic incentives needed

Amur Kanchaveli: "We can face the same crisis, but empty-handed"



THE CRISIS MAKES ECONOMISTS FROM ALL OVER THE WORLD DO THEIR BEST TO FIND WAYS OUT OF THE GLOBAL DEADLOCK. AT THE G20 SUMMIT IN LONDON, HEADS OF MAJOR ECONOMIES HAVE NAMED A NUMBER OF INTERNATIONAL FINANCIAL COMPROMISES, THOUGH SOME DOUBTS EXIST THAT THEY WILL REALLY STOP THE CRISIS. NOW, MOST ANTI-CRISIS PROGRAMMES ARE PURELY MONETARY, WHILE THE ECONOMY OBVIOUSLY NEEDS NEW DEVELOPMENT INCENTIVES AND MOBILIZATION OF DOMESTIC RESOURCES. THIS IS THE TOPIC OF THE 'TEN BLOCKS' REAL ECONOMY ANTI-CRISIS ASSISTANCE PROGRAMME DESIGNED BY A WELL-KNOWN ECONOMIST, DOCTOR OF ECONOMICS, AMUR KANCHAVELI. NOTABLY, NOT ONLY RUSSIAN ECONOMISTS BUT THE RUSSIAN GOVERNMENT PAID ATTENTION TO KANCHAVELI'S IDEAS. NOW, WE ARE TALKING WITH THE AUTHOR OF THE TEN BLOCKS PROGRAMME ABOUT THE CURRENT WORLD CRISIS AND ITS POSSIBLE SOLUTIONS TO IT.

— Amur Davidovich, how do you estimate the results of the G20 anti-crisis summit held in London?

— Anyway, it is very good that chiefs of the most economically powerful states

MY PROGRAMME CALLED TEN BLOCKS REPRESENTS A PACKAGE OF PROPOSALS THAT COULD FIRSTLY BOLSTER THE DEVELOPMENT OF RUSSIA'S REAL ECONOMY SECTOR. THE STEPS I PROPOSE WILL INTRODUCE WISER PRIORITIES FOR THE COUNTRY'S SOCIAL-ECONOMIC DEVELOPMENT.

have met, found a common language and understanding in the need to get over the economic crisis. In this context, I believe that this meeting has much more political than economic sense. From this point of view, the summit should be considered a political-economic and not an economic event. Thus, the maximum possible effect has been reached.

— And what can you say about the decisions taken there?

— Any sound economist will highly estimate the London summit. But any sound economist will tell you that agreements reached there are not just insufficient, but completely insufficient. That is why, it is important to prevent a dangerous illusion that the world leaders have gathered, discussed and taken all the necessary decisions and we should only wait until the international framework they created save us from the crisis. But it is not the case! Let us say, in London, the leaders have agreed on stricter rules of international loan policy, revision of financial condi-

With that, the producer of new values is playing a small part. Speaking about the G20 summit, I should say that to resume the economic growth, chiefs of the leading economic powers decided to take two types of steps. First — to provide the world financial system with liquidity. The policy of low rates using the full set of money market instruments including alternative ones supporting price stability will be continued.

Second, G20 financial authorities recommend continue the capitalization of major national banks. A special group of measures is



tions, raising resources of global financial bodies and new financial control rules thus sacrificing the principle of absolute freedom of financial markets.

All of this is right. But it is the top international financial supervision level. Establishing order on this level is necessary but completely insufficient to inspire the economy to overcome the crisis.

— And what is needed?

— Generally speaking, to understand the reasons of the current crisis, the production sphere should be firstly considered. One should find out what hinders the development of production forces.

aimed at strengthening control over the world financial system. G20 countries suggest that hedge funds should be registered and information that will help estimate risks they create should be compulsorily revealed. Also, they proposed tightening control over rating agencies.

There is no doubt that these are right and wise steps. But we should confine ourselves only to these measures. Otherwise, we would use up international and national reserves and face the same crisis but empty-handed.

— What is the reason that most of the steps only relate to distributing state funds, giving out loans and buying out 'toxic' assets?

— On one hand, the reason is that such steps are traditional and bring rapid results. But such an effect is nondurable like an injection of anesthetic in case of a heavy chronic illness. People truly want to fight the crisis and truly believe in the success of these short-term measures. In addition, one should always remember that any leader always has a great deal of urgent economic-political problems that should be rapidly solved right now. That is why, most of the decisions taken are based on principles and rules adapted for previous economic reality.

It is quite obvious, however, that the current crisis casts some doubt not only on the

prospects of existing economic relations, but on the successful development of the economic model that has led to the current global crisis. We need new steps and new backbones for the development — chiefly the development of the real sector.

— New economic backbones?

— Yes. Just so, new! Given all obviously necessary measures taken today, some perplexity remains — no real economic relations to become more reliable backbones of economic development have been proposed yet. Although, it is quite obvious that tightening the fiscal policy or control and nationalization of financial assets cannot be a solution — we need new economic incentives badly.

— Is your programme devoted to these incentives?

— Yes, it is quite so. My programme called Ten Blocks represents a package of proposals that could firstly bolster the development of Russia's real economy sector. The steps I propose will introduce wiser priorities for the country's social-economic development.

— What is the basis of your programme?

— This programme is based on my analytical researches and practical work in the real sector I was carrying out for many years. I dealt with strategic management of business reliability of commercial industrial systems. This is the topic of my doctorate thesis I maintained at the Bauman Moscow State Technical University.

— Will you name the main idea of your programme?

— The gist of the programme is creating new development opportunities and incentives instead of redistributing state funds, issuing new state obligations and pouring liquidity into the country's banking system.

— Does the programme imply radical changes of the economic system?

— By no means! My programme does not allow for

any social revolutions and does not contradict the main principles of Russia's state and economic structure. It does not require the revision of property relations and is based on the existing principles and forms of state economic management.

The Ten Blocks programme contains a number of urgent anti-crisis steps. If taken by the state, considerable social-economic results will be achieved already within a year, namely the reduction of negative consequences of the global financial crisis for Russia and building promising mechanisms of the country's economic development.

— What exactly do you suggest?

— I will not retell the whole programme as it is not the point of our discussion. But I can dwell on some of its features. For example, I suggest that approaches to incomes from various activities should be radically divided and activities that lead to creating real values should be made the corner stone (both by social status and profitability). Are you getting me? The company that makes new products should be valued higher than the company that only derives profits from exchange speculations.

The matter is that a surprising and even paradoxical economic situation has been created in the world. With the development of stock exchange and financial institutions, their service function relating to financial operations needed just to provide more advanced forms of commodity-money relations began to bring much easier and larger profits than creating new values — products.

Thus, the focus of the market interest moved to non-constructive ways of getting profits. It is this anti-productive disparity that has become a major and, perhaps, the key reason of the current global crisis — there was no need to produce new goods to earn more. I think time has come to announce

that the main function of the economy is to create new values and this function should be promoted economically — by altering the existing tax and preferential system. This is one of the ideas of the programme, which contains ten quite short and distinct provisions. That is why it is named Ten Blocks.

With that, I do not think that it is necessary to focus all anti-crisis efforts only on this programme. Among other things, this crisis has showed that the society should be united by common ideas including the economic sphere. So, I place my programme only as part of other anti-crisis measures, part of a new economic ideology, which is vital now.

In Brief

Amur Kanchaveli, Doctor of Economics, CEO of KAD-M Association, a representative of the Russian Chamber of Commerce and Industry in the Morocco Republic. He was born in the city of Poti, finished the Tbilisi University (Faculty of Mathematical and Physical Sciences), Moscow State Aviation Institute (Economics and Management Faculty), postgraduate education and doctorate of the Bauman Moscow State Technical University. He maintained the Ph.D and doctorate thesis at the Bauman Moscow State Technical University, where he read lectures on the theory of probability and mathematical statistics at the higher mathematics department for a number of years. In the early 1990's, he established the KAD-M association specializing on managing international economic relations. In 2006, he opened the permanent multi-industry exhibition of leading Russian manufacturers in Casablanca, Morocco.



April 2009

IDGC of the North-West: Weekdays of Power Industry

Alexander Kukhmai: "We support everything that leads to development and success"



Net Profit — 598 Million Rubles

The IDGC of the North-West has got a clear positive audit report on the accounting statement for 2008.

"The company's accounting statement truly describes its financial state in all substantial relations as of December 31, 2008 and the results of its business activities from January 1 to December 31, 2008 inclusively according to the legislation of the Russian Federation as related to preparing the accounting statement", report KPMG auditors.

In 2008, the income of IDGC of the North-West

Accountant of IDGC of the North-West Tatyana Maksimova.

She noted that, according to the Russian accounting laws, comparable figures for 2007 are not to be given in the statement. "Comparable figures for 2007 will be presented in IAS accounting statement of IDGC of the North-West to be published in July 2009", she added.

Wind Turbines in Russia's North

General Director of IDGC of the North-West Alexander Kukhmai has met in Murmansk with Chief of Netherlands-based Windlife Energy company Paul Logchies. The chiefs discussed how the project of developing alternative energy sources — wind turbines — was being implemented in the Polar region. Russian and Dutch experts had already held preliminary consultations with IDGC of the North-West and Kolenergo.

Paul Logchies says the project in the Murmansk Region runs very fast.

"At present, the situation is

already in 2011 and the second one — in 2012.

"We will start laying the foundation next year", told the Dutch businessman to the General Director of IDGC of the North-West. "And we would like to have the same close cooperation with IDGC of the North-West in grid connection and preparing reports, too.

According to Paul Logchies, Windlife Energy has already chosen a Dutch engineering company that will deal with technical issues. In May, he plans to officially introduce company experts to

THE COMPANY'S ACCOUNTING STATEMENT TRULY DESCRIBES ITS FINANCIAL STATE IN ALL SUBSTANTIAL RELATIONS AS OF DECEMBER 31, 2008 AND THE RESULTS OF ITS BUSINESS ACTIVITIES FROM JANUARY 1 TO DECEMBER 31, 2008 INCLUSIVELY ACCORDING TO THE LEGISLATION OF THE RUSSIAN FEDERATION AS RELATED TO PREPARING THE ACCOUNTING STATEMENT", REPORT KPMG AUDITORS.

managers of IDGC of the North-West. Problems of technological connection and a number of other technical issues should be solved to continue the project.

implemented step-by-step within two years.

The Voy-Vozh-Pomozdino power line was launched in the second quarter of 2008. In autumn 2008, the modernization of Ust-Kulom and Pomozdino substations was over. Launching the Voy-Vozh substation allowed the whole system to be put into operation.

The project raised the security of power supplies to over 70,000 consumers providing the second power supply for the Ust-Kulom, Troitsk-Pechyorsk, Kortkerossk and Sosnogorsk districts of the Komi Republic. In addition, it

allowed partial reduction of power deficit in the south of the republic during maximum winter loads.

First Deputy Minister of Industry and Energy of the Komi Republic Anatoliy Chutkin said IDGC of the North-West and the Komi Republic's government spares no efforts to raise the reliability of power supplies to consumers in the republic's south. "This line is the first step to solve the problem of power shortages in the southern hub. Now, the 110-kW Voy-Vozh-Pomozdino line allowed transferring 20MW of energy surplus from the north. The construction of the 220-kW Pechyora-Ukhta-Mikun line in 2011 will allow us to fully unload the south energy hub", stressed Anatoliy Chutkin.

To his mind, solving the problem of energy shortages will attract more investors to Komi's south and bolster industrial development. "A Polish company has already decided to build an advanced timber processing plant in the Ust-Kulom district. Considering works carried out by Komienergo, investors have agreed to start building production facilities in Ust-Kulom, which means the development of both the Ust-Kulom and Kortkerossk districts."

By 2015, Komienergo plans to create another several power rings to link dead-end transmission lines of other Komi's regions.

Investment Projects of Novgorodenergo

During his business trip to Velikiy Novgorod, Alexander Kukhmai checked the construction of the 110-kW Progress-Moshenskoye transmission line and 110-kW Yuzhnaya substation. IDGC of the North-West's chief said that these facilities should be launched this year. "They are very important for the whole

power system of the Novgorod Region, so the company pays special attention to these major investment projects", he added.

"We must launch these power facilities in time. And the financial crisis and bad weather conditions will not stop the process. We rapidly solve production problems with subcontractors. On the whole, I am pleased with how Novgorodenergo carries out these investment projects and monitors subcontractors", said IDGC of the North-West's chief.

The 110-kW 35-km Progress-Moshenskoye high voltage transmission line is to be put in operation by April 2009. Including the modernization of the 110/35/10-kW Progress substation, this

investment project costs over 240 million rubles. The 110-kW Progress-Moshenskoye high-voltage line will raise the reliability of power supplies to pump stations of the Kstovo-Yaroslavl-Kirishi-Primorsk oil product pipeline owned by AK Transnefteprodukt.

It is planned to launch the 110/10-kW Yuzhnaya substation on the day of Velikiy Novgorod's 1150th anniversary. This substation will partially unload the Bazovaya and Mostischi substation supplying the city and provide power for the development of the Pskovskiy residential district's infrastructure and construction of a cottage neighborhood in the village of Yuryevo. This power facility is worth over 370 million rubles.

NIKOLAY SHVETS CONGRATULATED JSC "IDGC OF THE NORTH-WEST" WITH ITS FIRST ANNIVERSARY



NIKOLAY SHVETS, THE GENERAL DIRECTOR OF JSC "IDGC HOLDING", CONGRATULATED THE MANAGEMENT AND THE STAFF OF THE JSC "IDGC OF THE NORTH-WEST" ON THE FIRST ANNIVERSARY OF THE COMPANY.

He thanked the staff of JSC "IDGC of the North-West" for their professional work in supporting a reliable power

supply for consumers of the North-West region and wished everybody further success.

Nikolay Shvets particularly underlined that corporate traditions that are being initiated in the companies of the holding are of great importance as they make people working together closer, while bringing people light and heat, and therefore, hope and confidence for the coming day.

"An anniversary of JSC "IDGC of the North-West" — is an excellent excuse to thank again the people working in the company for their professional work and devotion to the business", — said Nikolay Shvets.

The management of JSC "IDGC of the North-West" received many greetings from colleagues, partners, government representatives, and business community from all regions of Russia.

In Brief

The United Operational Company JSC "IDGC of the North-West" is one year old

The Company has the following branches operating in the territory of the seven Northwestern regions of Russia: "ArkhEnergo", "VologdaEnergo", "KarelEnergo", "KolEnergo", "KomiEnergo", "NovgorodEnergo", "PskovEnergo"

On April 1st, 2008 the united operational company JSC "IDGC of the North-West" (Interregional Distribution Grid Company of North-West) was set up. The following seven companies have entered JSC "IDGC of the North-West" as network branches: "ArkhEnergo", "VologdaEnergo", "KarelEnergo", "KolEnergo", "KomiEnergo", "NovgorodEnergo", "PskovEnergo".

The authorized capital of JSC "IDGC of the North-West" consists of 95,787 billion ordinary registered shares at par value of RUR 0,1 each with total value of RUR 9,5787 billion. Since May 2008 the shares of JSC "IDGC of the North-West" have been trading in the Russian stock exchange markets ("Russian Trading System" Stock Exchange and MICEX Stock Exchange).

The major shareholder of JSC "IDGC of the North-West" (55,38 %) is the government whose stake is managed by JSC "IDGC Holding" established on July 1st, 2008 in the result of RAO EUS' reorganization. The stocks of interregional distributional network companies owned by RAO EUS were transferred to "IDGC Holding".

JSC "IDGC of the North-West" operates in the territory of seven regions of the Northwestern Federal district of 1,5859 million square meters with the population of 6,69 million people.

The total length of overhead and cable power transmission lines is 169.3 thousand km.

The amount of 35 kV substations and those of higher voltage held in the company inventory equals to 1,141 pieces; the installed capacity of power transformers of substations is 17.5 thousand MVA

13,9 thousand people work for JSC "IDGC of the North-West".



equaled 15,954 million rubles, of which 91.5% came from power transmission. The profitability (gross profit/income ratio) reached 6.4%. The company's net profit in 2008 accounted for 598 mil-

quite all right. We have a support in the local administration and closely cooperate with the Ministry of Industry, Transport and Energy of the Murmans Region's government. We have received an

"Terms are rather short, so we have to discuss the power connection chart and get ready for it jointly with Kolenergo already today", said General Director of IDGC of the North-West.

New Voy-Vozh Substation

Four districts of the Komi Republic has received a reliable power source. The construction of the new substation became the end of the largest investment project of Komienergo, a branch of IDGC of the North-West. The project included building the 110-kW Voy-Vozh-Pomozdino power line, modernization of the existing 110-kW Ust-Kulom and Pomozdino substations as well as building the new Voy-Vozh substation. The total cost of the project accounted for 615 million rubles. It was

IN 2008, THE INCOME OF IDGC OF THE NORTH-WEST EQUALED 15,954 MILLION RUBLES, OF WHICH 91.5% CAME FROM POWER TRANSMISSION.

THE PROFITABILITY (GROSS PROFIT/INCOME RATIO) REACHED 6.4%. THE COMPANY'S NET PROFIT IN 2008 ACCOUNTED FOR 598 MILLION RUBLES, WHICH IS 13.4% MORE THAN PROVIDED BY THE BUSINESS PLAN.

lion rubles, which is 13.4% more than provided by the business plan.

"This is the first accounting statement of IDGC of the North-West after its consolidation in April 2008, which includes information on its predecessors", said Chief

official land allocation and can start research work now — estimating the environmental effect and measuring wind potential", said Windlife Energy chief.

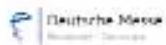
The first 100-MW wind turbine is expected to be installed in the Murmansk Region



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