

VEST Sakhalin Energy



The Grand Aniva gas carrier with the first carbon-neutral / offset cargo from Sakhalin-2 project arrives at Chita Terminal (Japan)

issue topic

The Green light for the green LNG

Sakhalin Energy delivered the first carbon neutral/offset LNG cargo from the Sakhalin-2 project to the Japanese company Toho Gas. The Russian gas carrier Grand Aniva made the voyage to Chita terminal (Aichi prefecture).

"The first shipment of Russian "green" LNG offers unique opportunities for long-term direct supply of carbon-neutral/ offset gas to the domestic market of the Asia-Pacific region. Considering that liquefied natural gas will remain an essential element of "green" energy for decades to come, this cargo is a key step towards the formation of an environmentally oriented portfolio of company's gas products and further evidence of the fact that Sakhalin Energy is contributing to the achievement of global climate goals. At the Sakhalin Oil and Gas 2021 Far-Eastern Energy Forum we agreed on cooperation for the first delivery of carbon-neutral/offset LNG cargo. Today we are ready to deliver it to the Japanese buyer," said Roman Dashkov, Chief Executive Officer of Sakhalin Energy.

According to him, offsetting the carbon footprint from the entire LNG chain from production to final usage by endusers allows making this energy resource even more in demand in countries that are consistently working on solving the decarbonisation problem. Japan, being one of them, is one of the essential buyers of the Sakhalin LNG. In 2020, the largest volume of LNG, 51.6%, was shipped to that country from the port of Prigorodnoye.

the company as a whole is actively developing climate projects that lead to the reduction of greenhouse gas emissions into the atmosphere.

Earlier, at the 24th St. Petersburg International Economic Forum, Sakhalin Energy and Sovcomflot signed long-term time charters for two oil tankers capable of using LNG as the primary fuel. The use of "green" vessels under the Sakhalin-2 project will contribute to preserving the ecology of the Far East Sea Basin, continuing Sakhalin Energy's long-term strategy towards decarbonisation.

As noted by Igor Tonkovidov, the General Director and the Chairman of the Sovcomflot Board, the company has been working to reduce its carbon footprint for many years and welcomes the opportunity to contribute to the practical implementation of environmental initiatives together with its long-time partner, Sakhalin Energy. "We are confident that a responsible approach to sustainable development today is an integral part of the business of leading companies in energy production, processing and maritime transportation. We look forward to further expanding our successful cooperation with Sakhalin Energy in the field of decarbonisation," added Igor Tonkovidov.

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Sakhalin Energy delegation led by Roman Dashkov, the Chief Executive Officer, went to join the 10th St. Petersburg International Gas Forum, which is widely regarded as one of the largest convention and exhibition projects in the oil and gas industry

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The first carbon neutral / offset LNG cargo from the Sakhalin-2 project delivered to Japan

Sakhalin Energy is currently exploring options related to supplying green LNG as a standard offer. At the same time,

CURRENT EVENTS					
5–8 _{October}	12 October	13 October	18 October	20 October	29 October
Sakhalin Energy took part in the 10th St. Petersburg International Gas Forum	Sakhalin Energy received the highest level of disclosure in the ESG reporting ranking	Sakhalin Energy delivered first carbon neutral / offset LNG cargo to Japan	LUN-A Construction and Commissioning team completed 5 years without lost time incidents	Sakhalin Energy held a forum for graduates	The annual employee opinion survey has been completed. The results will help identify areas for improvement in various aspects of the company's activities



Gas Forum: Russian Energy Trends

Sakhalin Energy delegation led by Roman Dashkov, Chief Executive Officer. went to join the 10th St. Petersburg International Gas Forum, which is widely regarded as one of the largest convention and exhibition projects in the oil and gas industry.

Twenty-five employees from different divisions took part in panel and roundtable discussions, conferences and sessions to talk about the development of the Russian gas market and global trends in the gas industry. The forum agenda offered the following four main blocks: INGAS STREAM 2021 - Innovations in the Gas Industry, Gas Motor Fuel, ROS-GAS-EXPO International Specialised Exhibition of Gas Industry and Equipment, and the 5th Corporate Exhibition Import Phaseout in the Gas Industry, which was particularly interesting for the Sakhalin-2 operator.

"This forum is an excellent platform for exchanging experience as it brings together the companies operating in various climatic zones and implementing projects at various stages of the life cycle. Practices shared by each of them are unique and interesting. The forum also welcomed national manufacturers in the area of supply chain management for oil and gas companies. Now we have to analyse and implement our Russian Content Development programme, with the view of the Russian market," said Roman Dashkov.

"This event opens the way to evaluate the willingness of manufacturers to cooperate, to understand our needs, not only in terms of technical solutions, but also for quality control and testing requirements to confirm the claimed characteristics. We met quite a few companies willing to discuss challenges **Chief Executive Officer, Roman Dashkov: "This** forum is an excellent platform for exchanging experience as it brings together the companies operating in various climatic zones and implementing projects at various stages of the life cycle. Now we have to analyse and implement our Russian Content Development programme, with the view of the Russian market".

Advisor to the Technical Directorate, supporting Sakhalin Energy CEO.

A whole block of events told about the development and training of human resources for the fuel and energy sector. According to Alexander Sheykin, Sakhalin Energy HR Director, the company's current HR policy meets the demanding requirements set by the industry and overdelivers in many aspects. It is also really important to contribute to the common demand for dedicated staff training in the universities and to promptly respond to key challenges and changes.

Like at other main federal and international forums, the agenda of the Gas Forum focused on environmental protection, digitalisation and the challenges of the new reality.

"Participation in leading industry events, both national and international, is beneficial not only to the participants themselves, who build up competences in their professional and often related areas, but to the company as



Flexible Gas Goes to Appealing Asian Markets

During the plenary session of the 10th St. Petersburg International Gas Forum, Elena Burmistrova, Deputy Chairman of the Gazprom Management Committee, Director General of Gazprom Export, spoke about the risks to the economy posed by high gas prices in Europe.



"In fact, what is happening today proves that the European spot market reflects only the momentary state of supply and demand but is not actually a pricing tool that would ensure a long-term balance of interests of buyers and sellers. Now the European spot market demonstrates high price volatility, it disorients both buyers and sellers, it carries risks of destabilising the economy of the entire region,' stated Elena Burmistrova.

The Head of Gazprom Export believes that gas prices have increased, among other things, due to the redirection of supplies of liquefied natural gas from the European to the Asian market, where it is now more profitable for suppliers to sell their products. Flexible gas, also known as LNG, opted for dollars and left Europe alone with its problems, says Elena Burmistrova.

"It is enough to look at the level of LNG terminal load in Europe to understand how much gas does not

many European experts are urging to refuse. "In our industry, with its large capital investments and a long investment cycle, it is this long-term type of contracts that gives confidence to investors at all stages of the production chain, from survey and production to transportation and consumption in energy-intensive industries," Elena Burmistrovaspecified.

She stated that long-term contracts provide more predictability and protect consumer interests: "There is no doubt that gas can be both relatively cheap and relatively expensive in the system of longterm contracts with oil pegs, but a predictable price will allow us to foresee it and hedge against possible risks in time. Most importantly, the balance of interests of buyers and sellers will be maintained in the long term."

Elena Burmistrova also stressed that, since the beginning of the year, Gazprom has supplied gas to foreign markets in volumes close to record levels. For instance, the company increased supplies to Germany by one third, to Turkey - by 2.5-fold, to Romania - four-fold, as compared to 2020. 'Gazprom has emphasised and will continue to emphasise that it fulfils all contractual obligations to its counterparties within the long-term contracts we concluded; we meet all requests for supply in full. Where it is technically possible, we also supply gas upon requests that exceed our contractual obligations," the Deputy Chair of the Gazprom Management Committee concluded her speech. Prepared by Marina Semitko all information is cited from open sources



and work together to find solutions. However, some may think that Sakhalin Energy is unreasonably demanding in terms of quality of equipment and services. This is a misconception. As all our choices are guided only by ensuring maximum safety level. The forum platform provides a space for a dialogue with Russian suppliers. Putting together a package of orders for Russian producers, understanding our common challenges and constraints will help us expand the pool of potential suppliers willing to cooperate, and update the list of Russian Content Development projects," said Yegor Dudochkin, Russian Content Development

well, as it gains new expertise. And, of course, the industry, which accumulates synergy at the forum for further development. Federal centres of responsibility set up in the oil and gas industry and synced up efforts taken together with state authorities are the integral components that ensure the most efficient implementation of strategically significant initiatives," said Roman Dashkov and promised that the experience gained at the 10th international gas forum in St. Petersburg will definitely find its way at the next Far Eastern Energy Forum in 2022.

reach European consumers now. Add to this the fall of domestic production in the European Union, as well as technical breakdowns and repairs postponed at a number of suppliers last year due to the pandemic, which, if only temporarily, limited the supply capacity. Along with the rise in gas prices in recent months, the number of transactions at European hubs decreased by several times, as market participants are not ready to engage in commercial activities in the legacy format due to instability of the market behaviour at this time," added Elena Burmistrova. In her opinion, the current situa-

tion has only bolstered the advantag-■ Natalia Gonchar : es of long-term gas contracts, which



The Sails Are Raised, the Course Is Set

The members of the Committee of Executive Directors and the heads of key Sakhalin Energy units took part in an off-site production meeting in Vladivostok. The agenda of the event included a discussion of the results of the major scheduled shutdown of the company's gas infrastructure facilities in 2021, as well as the short-term and long-term development plans for all key business areas.



The meeting was opened by a short film with an overview of the main stages and specific features of the summer maintenance campaign. Chief Executive Officer Roman Dashkov addressed the meeting participants: "We are proud to have been part of the ambitious process – the preparation, implementation and successful completion of the most comprehensive shutdown in the company's history. In life it often happens that you start out well, but arrive at the finish line last. Not in our case. We are one team, so we all reached the finish line together. Thank you all for the accomplished work!". He added that the key task for Sakhalin Energy as a manufacturing company is to choose a correct long-term development vector, be flexible and responsive to changing external factors, as before. According to the company's CEO, poor-quality performance of current tasks often hampers progress towards strategic goals. To avoid this, directors make working with personnel their priority. "Across the company, we strive to create a corporate culture and an environment that would enable each employee to unlock their individual potential and contribute to achieving common goals," stressed Roman Dashkov.



In accordance with the meeting agenda, the heads of the company's organisational units reported on the results of the major scheduled shutdown and lessons learned, discussed the methodology for assessing the reliability of equipment before the next maintenance campaign, and announced targets for 2022. According to Evgeny Udovenko, Head of Engineering and Maintenance Department, it was an open and constructive conversation of managers of all levels: "The informal communication about the prospects and the so-called bottlenecks of production gave us a strong impetus to continue to work hard and efficiently – the sails are raised, the course is set!" Sergey Kovalenko, Deputy Head of the Department, Head of Corporate Industrial Safety Division, pointed out that industrial and fire safety are important elements of the company's strategy. "Incidents or man-made accidents can devalue any production achievement, no matter how great it is. It goes without saying that we have made every effort to put up reliable barriers to protect us against such risks. Competent planning, multilevel production control and risk management are indispensable aspects of our work. Thanks to them we eliminated the risk of emergency situations during the entire scheduled shutdown."



The next item on the programme of the off-site event was a tour of the Voroshilov Battery. The guests of one of the most famous fortified towers in the world were greeted by Georgiy Shabot, the last commander of the battery. "This unique combat unit of enormous size has never actually been used in battle. Even so, it held the fort and defended Vladivostok from the sea side as long as it was an operating military facility – until 1997. During the last shot, a projectile fired from a distance of five nautical miles, that is, nine kilometres, accurately hit the target – a mooring barrel with a diameter of two metres," said Georgiy Shabot. The battery's combat power is impressive: tonnes of iron on the surface and under it, complex mechanisms, multilevel bunkers with underground tunnels joining them. The facility of a stunning design, which has everything from A to Z, just like in any production, was created by military engineers more than 80 years ago. The patriotic part of the event was followed by a corporate sailing regatta with competitions and team-building tasks, which charged its participants with positive emotions. Quick mobilisation, focused attention, precise execution of the skipper's commands, and task prioritisation were the key skills that helped our colleagues, participating in the regatta, to reach the finish line together, as one big team.

The page is prepared by Tatyana Derivedmid

spotlight interview

"Mankind Has Not Yet Come up with Another Response to Climate Change"

First Deputy Prime Minister Andrey Belousov at various times dealt with issues at the intersection of the environmental, economic, technological and business agendas, but in 2014–2019, quite unexpectedly for an outside observer, they united on the topic of the "energy transition" of the Russian economy. In an interview with Kommersant Daily, the Head of the economic bloc in the White House explains where the government stands on "decarbonisation" in terms of the main economic goals, such as GDP growth and industrial production, to address social problems.



Photo source: rbc.ru

- Russia can look at the "energy transition", aka "decarbonisation", from two perspectives. This is either something that may happen, so the country's economy must get ready for it, or it's something that will happen anyway, regardless of what we think about both global climate change and whether the world will remain united on this matter. From the government's point of view, is there a difference for Russia between these two standpoints? Is the global decarbonisation inevitable or does it pose just a potential risk to the economy?

- It is already underway. I mean, energy transition as a set of structural, technological and other measures, I want to emphasise it, to reduce greenhouse gas emissions in order to stabilise average temperatures and fight adverse climate changes. Already far in the lead, these processes will hardly be stopped as the mankind has not yet come up with other response to climate change than energy transition. It is generally recognised that as for 2020, the global average temperature was 1.1 degrees above pre-industrial levels.

- So, we see this concept as a scientific one, and not as an external challenge. Russia has put this issue on the agenda. Do we believe that energy transition is necessary?

- We take up this agenda, but there are some details. The thing is, of course, that

It means that all the problems fuelled by the gap between developing and developed countries will acquire momentum. So, the key question for everyone, including Russia, is how to align energy transition with the sustainable development agenda.

We have to figure out how to follow our own long-term development agenda, based, first of all, on the opportunities this transition has to offer our country (definitely, given the risks it poses).

- What other structural changes might this transition bring into the Russian economy within 20 years? Until 10 years ago, we believed it was only about adaptation, not about the structural transformation of our economy.

- Then there is the question as to what our agenda is and how we will follow it. We have to make sure that our own sustainable development is ongoing. But we all understand that there is a number of unresolved structural problems, and everyone is talking about it. This is the point where we come to a consensus. Our structural problems bring us a slow growth rate. Slow growth rates do not let us solve social problems, so we have to ensure sustainable development with acceptable rates that are high enough (because they are higher those rates set by our rigid, structurally heavy economy), it makes 3-4%. At the very least, 3%!

Another question is what leverage we can use. And we have an answer to that. Within, say, 5–7 years, it's about controlled process changes related to, first of all, the implementation of environmental laws and the introduction of the best available technologies. That's the first point. Second, we need to jump-start the modernisation of the energy sector. Not only "big-scale power generation", but also thermal generation in the housing and utilities sector. I'm talking about fuel combustion technologies with low CO₂ emissions. For us, it's primarily gas. Hence, the accelerated gasification, gas instead of coal and oil products, including in the housing and utilities sector.

Third, enjoying our technological advantages. There is a number of technologies at our disposal where the rest of the world is falling behind. For instance, nuclear and hydrogen technologies. We're looking at huge opportunities here as the demand for hydrogen is enormous. Today it is already about 120 million tonnes per year. As estimated, we can cover over 20% of the world hydrogen market within 20 years. Just at Friday strategic session on the development of the Russian hydrogen energy sector, Prime Minister Mikhail Mishustin underlined that the government is willing to set up large-scale production facilities to meet the demand for hydrogen and claim a significant share of the market.

including Nord Stream-2, not only to pump gas, but also hydrogen mixed with other gases. Moreover, we see great prospects in technologies for capturing, processing, and storing carbon dioxide from industrial and energy production facilities.

This is the third point, but there is also the fourth one. The regulators. Without adequate regulators, we'll fail to push companies towards their process development. Indeed, there are some incentives for the implementation of the best available technologies, comprehensive environmental permits, and fines, but this is not enough. We have to increase the incentives with establishing CO. emission quotas and their trading, the use or modification of tax system in the fuel and energy sector together with the use of "clean" technologies. But these are just ideas for now, and they will take one or two years to work out.

And finally, a very important fifth point, which is implementing the so-called climate projects, which play to our natural advantage – high absorption capacity of the environment. Forests, swamps, tundra, and inland seas are powerful CO_2 absorbers, something most other countries do not have. Also, fire-fighting and forestation make a powerful tool for solving the global climate problem.

- It's one thing when we estimate our actual resources, but it's another thing when it's done from the outside. To what extent does the implementation of our domestic climate agenda depend on Russia's international relations?

- It is important that these measures be recognised by other countries, which are coming up with their own actions. First of all, the European Union, our largest trade partner along with China. We need to negotiate, to set up a negotiating platform, and to develop an agenda on this exact platform. I think it would make sense for us to use OECD as a platform for such negotiations, as it is an acknowledged and balanced organisation that is actively working on drafting climate regulations.

- Where are we now in negotiations with OECD? We know almost nothing about them.

- All I can say is that they are gaining steam now.

- Regarding Russia's interaction with

with the statement that until 2023, Russia will discuss investments, the dividend policy and the "net-zero transition" altogether. Government officials put these topics on one plate in their speeches. We would like to understand this connection more clearly.

– From the beginning of this year's tax discussions, those tax innovations were looked at to set up taxation terms for major CO_2 emitters. Everybody knows that chemical industry and metallurgy are among them. That's why major commodity businesses got the following suggestion: let's consider the situation in which Russia will move towards the new emission regulations in a smooth, gradual, and calm manner. That was one of the talking points of President Vladimir Putin: no sudden movements, only smooth progress in this direction.

The situation with the Mineral extraction tax increase and new excise duties on liquid steel has to be considered in this context. As for dividends, the question has long been on the agenda as to how to fine-tune the tax system to make it more profitable for companies to invest than to pay dividends. But it's not only about tax policy. It is also about the investment climate and profitability, as well as the market growth trends.

We find ourselves in severe constraints here. We have double taxation agreements with most of the countries, setting low taxation of dividends, that's why direct taxation of dividends is impossible because of our international obligations. We need to change these agreements, which creates a huge number of problems.

- This was partly done before, but not on this scale.

- We do it only for offshore or quasioffshore companies. Today, we have about eighty such agreements. So, somebody came up with a simple idea to have a progressive taxation of profit with two rates, 25% and 30%, depending on the "dividends minus investments" difference to capital. As the taxation scales were light, a dozen companies could have used them. But it turned out that, first of all, businesses were not ready for such a dramatic change. There are problems with the shareholders who didn't expect this U-turn, especially because it was supposed to be done post factum with a retrospective five-year period to smooth out fluctuations from large dividend payments...

So the business community asked to put it

the main "centres of force" start to adjust the situation to factor in their own interests and agendas, which causes conflicts; the foundation for these conflicts has originally been laid by different major economic players interacting with each other. One of the main issues, which has become quite clear now, is the to-do list for the countries that are now at the stage of primary industrialisation or a little beyond one. For example, countries with a low car ownership rate have to develop heavy industry, and these include such giants as Indonesia, Brazil, and India. And don't even get me started on the developed countries. "Sugarcoated" by the G7 countries and the world's leading economies, this energy transition for African countries and such will translate into a slowdown of their development or its cessation altogether.

- This is quite ambitious, and it hasn't been mentioned before.

 We have the upper hand here, which is developed infrastructure and resources.
We can use our transportation network, China on the climate agenda, are there any problems that differ from the agenda of the relevant negotiations with the EU?

- China has different problems and of a different scale. China's energy sector is mainly coal-based. China has announced a transition to net-zero by 2060. It is clear that no country in the world is able to change the energy balance quickly. Coal makes about 60% in the country's energy sector, so the Chinese are the largest potential consumers of coal for Russia. And, sure enough, it is more difficult for them to adapt to the conditions set out by the developed countries. In this respect, we are caught somewhere in between these two poles, China and the EU. And we can be their communicators, so in this regard, Russia has a winning position.

- In fact, recent discussion of the dividend policy of Russian companies ended

all off.

Moreover, a number of legal investment structures that exist today are based on dividend payments. For example, a subsidiary company dividends to the parent company, which is a large holding company, and the parent company then distributes these dividends as investments into the subsidiary company. This is how resources are redistributed within the holding company. There are also cases when, for various reasons, the collected investments are moved outside the holding company, and then we see an SPV set up outside and get dividends. All of this has to be factored in, so we took a break. We will get together with the business community and finalise this mechanism.

- The investment capacity of the European market related to the energy transition is quite high. Do you intend to

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somehow limit the potential earnings of state companies from investing in the energy transition outside of Russia? On the one hand, they are not investing in Russia. On the other hand, unlike private companies, this property and revenues are in any case state-owned. If Gazprom or Rosneft sets up a holding company in Holland, it will remain a state-owned asset. But then there is an opportunity for technology transfer. Or do you think that the domestic economy comes first for us, and this is all a secondary effect?

- You are asking from the legal standpoint. Try socio-economic: where do these investments create jobs? Out there. And where is the demand for machinery, equipment, and contracting capacities? Out there too. And then there is one question: how does our country benefit from it? The company gets profit, but it might as well be left abroad. Then there is another question: why do we need that? This is a semicolonial way of development. It means, we will extract resources here and invest profits in the foreign economy. I really thought that we have already been past this period of development.

Another thing is that companies often complain, and rightly so, that our country doesn't offer many good markets to invest. I often talk to the business community, and that's what I've heard. So, the colleagues are right. We need to create markets, facilitate their development, and remove risks, at least partially.

- Do businesses still complain about the infrastructure?

- And also about the investment climate. I'll be careful to say that we are talking about ineffective resolution of investment disputes and protection of investors' rights. Still. Despite the fact that we are trying to use the bankruptcy law amendment to address some of them. But the main challenge is profitability. Everything else – the investment climate, investment resources, interest rates – all can be resolved with profitability. Profitability is not about the profit in the markets, but rather how fast they are growing.

When they show rapid growth, as they did in the first half of the 2000s, everyone somehow forgets about the investment climate. It used to be trendy. Extremely trendy to invest in Russia, which was obvious as the markets were growing by 10% a year.

Then, clearly, we hit structural ceilings and limitations. GDP, which was growing 5-6% a year, dropped immediately to 2% a year, or even lower. That is also understandable. Immediately, there was nowhere to invest. That was the problem. But it was clear and manageable.

- Is it possible to "stitch together" the lifting of investment barriers and the green agenda? Is it technically possible and is it necessary?

actively involved in this process. We had nothing, no reference books of technologies. They cannot be compiled in the comfort of someone's office, they have to be developed by businesses as such. In Europe, all this took decades. In our country – three or four years.

Eventually, businesses realised that these reference books were for their own good. The old system had only all kinds of restrictions and fines, which were very substantial. The company understands this, so does the inspection authority. So they make a deal, which is wrong. I really liked what one of my colleagues said about the BAT when talking to company representatives, "For you, BAT is a pardon. But after that we're going to live by the rules that will get progressively stricter."

The development of comprehensive environmental permits and all this regulatory and negotiation work went on at the same time. It ended in 2017. Only after that they started to experiment with the BAT. The first companies began to try out the new regulation. Businesses asked for a pretty extended period when the so-called first category companies, which are main emitters, had to obtain comprehensive environmental permits or declare and defend their programmes if they do not comply with the parameters of these reference books. The pilots started in early 2019 with a deadline in 2022. Now this period is coming to an end.

It was extended for some companies, primarily as an exception for the military industrial complex. Other than that, the work has gained momentum. Being in charge, Rosprirodnadzor has already issued 27 newtype permits. But there are approximately 7.5 thousand facilities that fall under the new regulation. The regulatory framework for the BAT was developed together with the Ministry of Industry and Trade, first by Gleb Nikitin, then by Vasily Osmakov, who is now keeping an eye on things. They put together lists of equipment, which would be needed for the best available technologies, checked out Russian sites where this equipment can be manufactured. They also came up with the support measures to have this equipment manufactured, built, and bought.

The process is underway. Maybe slower than we would imagine, but it's a developing thing.

- Let's circle back to the public sector. When discussing its role in the energy transition and decarbonisation, manageable as it is, there is a dilemma: budget revenues provided by state-owned companies or the new green agenda...

- Companies, no matter if they are state-owned or private, which produce fuel and raw materials and fall under external carbon regulation, will soon be confronted with the challenge: they will still pay this — In addition to tax regulation, they exercise another element of pressure. But for those who refuse to take part in the general process. It's about access to financing. Already now, both major investment funds and major banks look into a company and its partners in terms of environmentally responsible technologies. Actually, ESG is a little larger than that as it's also about social and managerial factors of sustainable development, but it's roughly the same thing. Look at how trendy ESG has become, who will get on top and how...

- The Russian ESG spree looks very unnatural because of the suspiciously rapid development, don't you think so?

 I agree. Rapid often means quite shallow. But the point is that for exporters the choice is clear, while for non-exporters the choice is related to access to financial resources.

 Does Russia have any real opportunity to finance the hydrogen transformation of export at the level of the country, of its economic growth potential, capital cushion?
It does.

- Including without any major foreign investments?

- Of course, it does. It's not about foreign investments. We have the technologies, we have the financial resources and the infrastructure.

- And what share of GDP would be required for such a transition?

- The figures are not out of this world. Just to give you an example: our entire so-called intensive scenario in the energy transition strategy will cost about RUB 90 trillion over 28 years. This translates to 3.2 trillion a year. So, we are talking about less than 3% of GDP.

- It would be interesting to know your opinion about nuclear generation in this strategy.

- In all fairness, in terms of carbon footprint, nuclear generation is one of the cleanest forms of energy production. But a number of countries are very reluctant to recognise nuclear generation as "clean" just to avoid new strategic competitors.

We are certainly interested in nuclear generation being recognised as one of the "clean" forms of energy production. We have every opportunity to increase the share of nuclear generation. There is Chukotka and other remote northern territories. There is no other way to ensure sufficient generation there other than floating nuclear power plants. And by the way, the same is true about African countries. Floating nuclear power plants or mini-nuclear power plants are potentially one of the main ways to produce electricity there.

There is a strategic fork in the path here: I'm sure many countries will share the Russian position on these issues.

- About five years ago, Russia started

<u>achievement</u>

At the Highest Level

AK&M Rating Agency assigned Sakhalin Energy the highest ESG Reporting Rating (RESG 1).



Sakhalin Energy was one of the first companies in Russia to present its 2020 sustainable development report. This is the company's twelfth report that has been prepared under the Global Reporting Initiative (GRI) standards. The content and priorities of the document are defined in close cooperation with all stakeholders. The report includes detailed information on the company's operational, environmental, social, and other performance in the past year.

The ESG reporting rating has been calculated by the AK&M Rating Agency since 2020. The focus of the study is the completeness of sustainability information in reports (annual statements and sustainable development reports), as well as its public availability. The study examines 88 markers. The main purpose of the rating is to show the professional community the best practices in disclosing information on companies' social and environmental activities.

Sakhalin Energy consistently adheres to ESG principles in its work and systematically analyses international and Russian trends in non-financial reporting. Continuous improvement in terms of the provision of high-quality information demonstrates the company's commitment to a sustainable development and a proactive stance towards embedding the SDGs in its practices. As noted by AK&M Rating Agency, Sakhalin Energy fully discloses data on staff working conditions, but the company is advised to add information on the average monthly salary of employees. This is the first time Sakhalin Energy has participated in the ESG Reporting Rankings. In 2021, the ESG Reporting Rating included leading Russian companies that were the first in Russia to build their business in line with the Sustainable Development Goals.

-Notonlyisitpossible, but also necessary. This is a must. It is exactly the main point, and the best available technologies (BAT) are the first "thread". We have everything we need: the organisational mechanism, the regulatory framework. All we have to do is to adapt this system to the new tasks.

- In 2014, they adopted the BAT law and outlined the regulatory framework, but there is a feeling that either businesses didn't find this solution convenient or BAT have been difficult to administer, or the process of transition to BAT is ongoing in those economy sectors that do not stick out. What's going on with the BAT?

- Indeed, in the summer of 2014, this law was adopted. It had a fairly long transition period. It followed by absolutely painful fine-tuning of the regulatory framework. I witnessed it myself as by that time I joined the presidential administration and was money, the question is where, into the budget of the European Union or that of other countries, or as an investment in their own modernisation in Russia. We need investments in the energy transition to reduce payments to the European Union. The choice is simple and I think everything is clear. Moreover, it can all happen fairly quickly.

- Fairly quickly, is it 5–7 years or 10–20 years?

- I think, 3–5 years. The business community gets it very well. No wonder many big companies have started to look actively into organisational and technological solutions to reduce CO₂ emissions, and, by the way, to make money on the energy transition. On hydrogen projects, in particular.

 Now the same question, but about nonexporting companies. talking about its future joining Industry 4.0. Now they are talking about decarbonisation as the main perspective. Are these processes parallel or potentially interconnected?

— I think that decarbonisation is a part of Industry 4.0. It's not about the 'industry number'. It's about a new technological wave which brings changes in business forms, as well as in organisational structures, such as the transition from integrated corporations to network companies, and so on. Decarbonisation is just an integral part of this process.

It can't be any other way. After all, we are talking about a comprehensive process of consistent technological changes, something that was once called technological paradigm. Everything that happens in this area will be a part of the overall process.

Source: kommersant.ru

We Are Launching Verification of Climate Projects Based on International Standards in 2022

As of today, a system of standards has been created in Russia that will allow assigning an appropriate status to carbon projects. Rosstandart is expected to approve all relevant processes by mid-November. At the end of this year, it will be possible to accredit greenhouse gas verification and validation bodies. This was announced by Maxim Reshetnikov, Minister of Economic Development of Russia, during his working visit to Sakhalin.

"We will be able to begin verifying climate projects in accordance with Russian standards as early as 2022. These standards have been developed on the basis of internationally recognised standards," the minister emphasised in his address.

Maxim Reshetnikov and Sakhalin Oblast Governor Valery Limarenko discussed the issues of reducing greenhouse gas emissions as part of a carbon regulation experiment.

During the meeting, Maxim Reshetnikov assured those present that the national system for financing green projects and sustainable development initiatives in Russia was ready to be launched. The document formalising it was prepared by the Ministry of Economic Development of Russia jointly with VEB.RF on the instructions of the President of the Russian Federation Vladimir Putin. The Government of the Russian Federation adopted a corresponding decree. The documentation package approved by the Government includes criteria for green and adaptation projects, as well as the requirements for their verification system.

"Sakhalin Oblast is the first region in Russia to have set the goal of achieving carbon neutrality in 2025. This is an important mission, and it imposes a special responsibility

for addressing the issues of the global climate agenda. We intend to achieve a balance between emissions and absorption of greenhouse gases. For this purpose, we are implementing the gasification, alternative energy, clean transport, energy efficiency, and sustainable forest management programmes. The experience gained on Sakhalin will subsequently be replicated in all other parts of the country," said Valery Limarenko.

"Sakhalin Energy embraces the idea of the experiment to achieve carbon neutrality in the region and actively contributes to its implementation. The key issue in this process is how to determine quotas for greenhouse gas emissions. It is necessary to consider developing a unified methodological framework for allocating quotas that will be acceptable to all parties involved. Sakhalin Energy has suggested an approach based on the planned production output and industry average specific indicators of greenhouse gas emissions,







taking into account the segments of the production chain – production, transportation and processing," explained Roman Dashkov, Sakhalin Energy Chief Executive Officer.

Alexander Bosoy, Director of the East Mining Company's representative office in Yuzhno-Sakhalinsk, commented: "In the coming years, we intend to create a full-fledged infrastructure that will enable us to minimise the carbon footprint from our production activities in the Uglegorsk District – the key area for the company's business. East Mining Company has already started the implementation of the Green Coal Cluster projects. They include building Russia's longest mainline conveyor for the transportation of coal from the open pit to the port with a length of 23 km and a wind farm with a record design capacity for the Far East of 67.2 MW. We are also considering transferring our fleet of BelAZ dump trucks with a carrying capacity of 220 tonnes each to the green traction energy supply. This is fully con-

sistent with the region's global environmental initiative".

Many companies are already taking action to reduce greenhouse gas emissions, generating carbon reporting, and reducing the carbon footprint of their products in response to their investors' and consumers' demand.

The Minister also noted that the low-carbon development trend also implies developing electric transport and hydrogen technologies. Maxim Reshetnikov suggested that the region join the nation-wide electric transport development programme and substantiated the importance of the initiative: "This means the emergence of new industries in Russia, which will provide new jobs and contribute to the country's economic growth"— said the Head of the department.

The meeting was attended by Deputy

Chairman of the Sakhalin Oblast Government Vyacheslav Alenkov, Deputy Chairman of the Sakhalin Oblast Government Vladimir Sidorenko, Chairman of the Sakhalin Energy Committee of Executive Directors, Chief Executive Officer Roman Dashkov, President of Exxon Neftegas Limited Shelley Beer, Director of the Representative Office of East Mining Company in Yuzhno-Sakhalinsk Alexander Bosoy.

Discussion on energy sector development in the context of decarbonisation of the economy continued during the Sakhalin Oil and Gas 2021 Far Eastern Energy Forum

Representatives of the Government of Russia and the Sakhalin Oblast, as well as top managers of domestic and international oil and gas companies, made presentations, at the discussion platform, on strategies for the development of the energy industry and green energy development plans.

Speaking at the conference, Maxim Reshetnikov, Minister of Economic Development of Russia, noted that the methodology for accounting and allocation of quotas for greenhouse gas emissions was under development.

According to Valeriy Limarenko, Governor of the Sakhalin Oblast, it is extremely important to maintain a balance. "We need to develop a truly effective methodology of the process, which will achieve proper goals and be mutually beneficial for all those involved, while not increasing the fiscal burden on business, only," emphasised the head of the region in his welcome speech. Roman Dashkov, Chief Executive Officer of Sakhalin Energy, also drew attention to the need to develop a unified methodological framework for evaluating activities of businesses involved in the climate experiment.

"Sakhalin Energy was created on the foundation of high-technology solutions that enabled the reduction of CO2 emissions. Furthermore, over the last ten years, a programme has been developed and implemented to improve energy efficiency and reduce environmental impact. The implementation of that programme allowed Sakhalin Energy to increase the LNG production by 20%, while reducing greenhouse gas emissions by 18%," Roman Dashkov noted.

According to Roman Dashkov, similar programmes exist in many companies and there needs to be a clear understanding that it is impossible to be infinitely cutting



the greenhouse emissions down. That is why it is important that the parameter for the control and allocation of quotas to each company in the region took into account the unit costs methodology based on the production output volumes with due regard to their production programmes.

The page is prepared by Pavel Ryabchikov

november 2021

For Special Contribution

Sakhalin Energy was named the winner of the Going Carbon Neutral: Best Practices regional competition.

Sakhalin Oblast Minister of Environment Andrey Strelnikov pointed out that the company had been awarded for a special contribution to the improvement of the efficiency of environmental safety activities in the region.

"In recent years, Sakhalin Energy has reduced energy consumption, specific indicators of emissions of pollutants and greenhouse gases into the atmosphere, and has taken a leading position among other global companies in reducing greenhouse gas emissions per unit of output, in particular liquefied natural gas," said Roman Dashkov, Sakhalin Energy Chief Executive Officer.

He also added that the company supports initiatives to create voluntary carbon markets based on carbon credits,

climate-related projects, and the use of alternative low-carbon technologies in Russia, and aims to synchronise its efforts with the authorities to achieve the fastest and strongest effect from their implementation.

Sakhalin Therefore, Energy representatives are actively involved in the work of the Project Office under the Sakhalin Oblast Government. The Project Office was established with the aim of implementing an experiment involving special regulation of emissions and absorption of greenhouse gases. The results of the experiment will be of great use in the transition of the entire Russian economy to low-carbon production. It is planned to complete the energy transition in Russia by 2060.



Roman Dashkov, Sakhalin Energy's Chief Executive Officer, receives the First Place Diploma at the Sakhalin Oil and Gas Far Eastern Energy Forum from Sakhalin Oblast Minister of Environment, Andrey Strelnikov

Information for the Guest

Oleg Nikolaev, General Director of Gazprom Dobycha Orenburg, visited Sakhalin Energy's exhibition booth at the Sakhalin Oil and Gas 2021 Far Eastern Energy Forum.

During the conversation about the to make a virtual visit through a video call Sakhalin-2 project, the guest was given to the onshore processing facility, one

With a Focus on Localisation

Faced with the COVID-19 pandemic and true that every company has a development other external challenges, companies in the fuel and energy sector still have potential for growth. Localisation of business is among the most effective ways to accomplish that. This and other topics were discussed by the participants of the Adapting to New Reality focus session hosted by the Sakhalin-2 project operator on the second day of the Sakhalin Oil and Gas 2021 Forum.

The session was attended by Roman Dashkov, CEO of Sakhalin Energy, Vladimir Sidorenko, Deputy Chairman of the Sakhalin Oblast Government, and the heads of Sakhalin-2 contractors: Alexey Samsonenko of Yokogawa Electric Sakhalin LLC, Sergey Popsuev of Island General Services LLC, and Grigory Trofimov of PromSistemy LLC. Together, they looked back on the year 2020 with the world entering a new socio-economic paradigm triggered by the pandemic.

"Our teams' resilience and professionalism, their ability to make quick decisions, revise their plans, and adjust the tasks at hand were put to the test. It is strategy that should not change, but tactical actions need to be adapted to external conditions," said Roman Dashkov.

According to him, the company had predicted the consequences of the pandemic, demonstrated a proactive approach to the mobilisation of its staff, and took advantage of the digital platform already in place at Sakhalin Energy to make some of its services and functions available as remote support. Thanks to its concerted efforts, the company produced and shipped to its buyers an unprecedented 178.6 standard LNG cargoes in 2020, a record-high number in the history of the Sakhalin-2 project.

"Last year all of us, the authorities and businesses included, successfully passed the endurance test of the pandemic, proving capable of operating in a tough external environment. The Oblast's administration as well as its oil and gas companies were faced with the important task of ensuring business continuity. Together, we coped with it," added Vladimir Sidorenko.





a virtual tour of all production facilities of the company. The interactive map of the Sakhalin-2 infrastructure gave Oleg Nikolaev an opportunity to learn about the unique principles of project implementation, the technologies for improving production processes, the systems for ensuring the uninterrupted operation of equipment for offloading hydrocarbons, and the company's performance indicators. The presentation was accompanied by a 3D animation video, showing the innovative dual mixed refrigerant technology, adapted by Shell specifically for the Sakhalin Energy LNG plant.

The head of Gazprom Dobycha Orenburg was exceptionally interested in information about Sakhalin Energy's experience in digital transformation of production in the new conditions. At the exhibition booth, he had the opportunity

of the key Sakhalin-2 assets, and have a talk with OPF specialists concerning the assurance of its stable operation. Oleg Nikolaev was provided specific examples, one of them being the deployment at the OPF of automated emergency release and pipeline control systems based on Yokogawa controllers. The pipeline control system ensures meeting all requirements for centralised control and collection of up-todate data in real time.

The guest was informed about Goal Zero, one of the company's priority programmes in the area of safety, which is based on each employee's conscious intolerance to unsafe actions. It was noted that the main emphasis in the programme implementation is currently placed on the development of HSE leadership qualities. For this purpose, leadership teams have been created at all assets and in all key

units of Sakhalin Energy. The main task of the teams' coaches and participants is to communicate the Goal Zero principles to the company and contractor staff, and to achieve uniform understanding of these principles.

This approach was especially relevant during the pandemic, when Sakhalin Energy had to promptly respond to the unprecedented challenges. In answer to his question about corporate transformation in the period when the whole world was trying to recover from the shock of the pandemic breakout, Oleg Nikolaev was told about the measures taken to prevent

the spread of the coronavirus disease. These measures included arranging temporary accommodation facilities for rotational shift staff, establishing the 'sterile' status for a number of production facilities, providing remote expert support in the execution of exceedingly complex technical work and, of course, testing employees for COVID-19.

At the end of the meeting, Oleg Nikolaev highly estimated the work of Sakhalin Energy and expressed his confidence in further cooperation between the two companies in order to exchange experience in coping with new challenges.

The page is prepared by Marina Semitko

november 2021

sakhalin oil and gas - 2021

Experience of the Past for a Sustainable Future

As part of the Sakhalin Oil and Gas 2021 Far Eastern Energy Forum Sakhalin Energy provided the opportunity for the Sakhalin students to communicate with veterans of the Sakhalin-2 project.

The company's focus session "Experiences of the past for a sustainable future" was attended by Roman Dashkov, Chief Executive Officer of the company, Alexander Medvedev, Advisor to the General Director of Gazprom Export and veterans of oil and gas industry engaged in the Sakhalin-2 project since the very beginning: Anatoly Kholodin, Alexander Korovin, Valery Garipov, Vladimir Kukhorev, Dmitry Yakovlev as well as students of regional higher and secondary professional educational institutions.

Roman Dashkov noted that Sakhalin Energy has a special focus on the issues related to the company attractiveness as an employer. "It is important for us to make the Sakhalin-2 project attractive for young specialists, university graduates and workers. Whatever educational institution you graduate from, based on my own experience, in the project you will start with the position of Operator or Specialist. This will allow you to understand the organisational system, risks associated with making decisions based on the correct data obtained and the quality of their analysis. Only after that you will understand what responsibility you can take and what result you will get as well as how to correctly set tasks for the future," noted Roman Dashkov.

Alexander Medvedev mentioned that the demand for oil and gas specialities will remain in the future, therefore graduates will have the opportunity to work both in Russian and international projects.

The industry veterans, in turn, spoke about the difficult conditions when the Sakhalin offshore projects were implemented, about the huge work associated with development of the legislative, regulatory and technical documentation.

During the conversation with students, Anatoly Kholodin, Ex-Vice-Governor of the Sakhalin Oblast noted that students need to use all the opportunities for professional development while they are young. "My team consisted of 70% of young people. You are talented, educated, you have huge prospects," added Anatoly Kholodin.

Three winners of the Oil and Gas Production competence of the VI regional championship WorldSkills Russia took part in the event: Pavel Kalashnikov, Nikolay Kalashnikov and Daniil Omelyan.

"I cannot describe my impressions. Of course, I would like to talk more with veterans, listen to their stories and learn from their experience. The best way to pass the experience is not through the books, but during such live communication. Many thanks to the company for this unique opportunity," said Daniil Omelyan.

The question and answers session was especially interesting for young participants. As part of it, they discussed the following relevant topics with the veterans: search for technical solutions in design and construction, skills and abilities that future qualified specialists should have, the secrets of successful management decisions as well as the future of the oil and gas industry in Sakhalin and in



General Vector for Development

Within the framework of the Sakhalin Oil and Gas 2021 Far Eastern Energy Forum, various aspects of achieving the UN Sustainability Development Goals and national projects, including the growing role of businesses in implementing global societal challenges, were discussed, apart from industry-specific topics.

As the session moderator Vadim Kovalev, is always there to provide advice and First Deputy Executive Director of the guidance. Association of Managers of Russia, put it, while the business society generally had Deputy General Director for Partnership no doubts about the importance of the Projects at National Priorities, in early Sustainable Development Goals (SDG) and national projects, and was willing to move in this direction, many companies were not quite aware of the best place to start and who to look up to. For such representatives of the business community, the Russian Union of Industrialists and Entrepreneurs (RUIE), as well as the autonomous nonprofit organisation National Priorities are ready to provide guidance. According to Elena Feoktistova, Managing Director for Corporate Responsibility, Sustainable Development and Social Entrepreneurship at RUIE, Russia already has examples of businesses that have dedicated many years to achieving the SDGs and accumulated vast experience in this area. The Russian Union of Industrialists and Entrepreneurs

According to Margarita Sereda,

SDGs and the national projects. In her words, they are both reflected in regional strategic projects and programmes for the social and economic development of the island, the implementation of which depends not only on the efforts of public authorities, but also of Sakhalin businesses.and projects," said Margarita Sereda.

According to Natalia Gonchar, Head of Corporate Affairs Department, Press Secretary at Sakhalin Energy, the

SDG philosophy is in line with business priorities, where the emphasis is placed on optimising and boosting the efficiency of all its processes. "The same refers to national projects. Jointly with the SDGs, they create a shared vector of sustainable development at the international and federal levels, with a practical manifestation in the regions. And most importantly, such work brings together the efforts of authorities, businesses, and society," underlined Natalia Gonchar.

2021, the organisation carried out an analysis of corporate practices included in the RUIE library. Special emphasis was put on aligning corporate social engagement with the goals and objectives of the federal programmes implemented as part of the national projects. Seven Russian companies, including Sakhalin Energy, were awarded the status of National Project Partner for their work.

"Nowadays, our country needs responsible companies willing to invest in social projects. And we in our turn strive to show business fr om the new aspect, demonstrate its significant role, and build it into the general agenda of national goals

Yulia Glavinskaya, Minister of Public Administration of the Sakhalin Oblast, spoke about the close correlation of the



The page is prepared by Pavel Ryabchikov

A Solution That No Other Company in the World Has Ever Used Before

The climate agenda is coming to the foreground not only in Russia, but also abroad. Therefore, many companies are actively making steps towards reducing their carbon footprint. These include Sakhalin Energy and Sovcomflot (SCF), which presented a joint report on the prospects for bunkering oil tankers with liquefied natural gas during the Sakhalin Oil and Gas Far Eastern Forum.



ROMAN POKROMKIN, HEAD OF TECHNICAL POLICY AND FLEET RENEWAL DEPARTMENT AT SOVCOMFLOT:

The transition to new types of fuel with a low carbon footprint is a key factor in the development of both world shipping and world

energy in the foreseeable future. International regulators are consistently tightening environmental standards, thereby stimulating this process. For example, the International Maritime Organisation (IMO) roadmap has set a goal to reduce CO2 emissions from vessels by 40% by 2030 compared to the figure for 2008.

The IMO roadmap was adopted in 2018, but Sovcomflot had begun to prepare for stricter regulations long before that. We considered various solutions. As a result, we came to the conclusion that the best option is the introduction of LNG the most environmentally friendly type of marine fuel available on the market.

Sovcomflot began to prepare the introduction of LNG back in 2015 together with Shell. By 2018, we had already commissioned the world's first Aframax tankers (deadweight of 114,000 tonnes) powered by LNG. Now we have six such "green" tankers in our fleet, and five more are under construction. In the nearest future, Sovcomflot intends to order mainly LNG-fuelled vessels. Over the past three years, a considerable number of shipping companies around the world have followed SCF's lead and started using LNG as the main fuel for tankers.

Compared to traditional fuels, LNG can significantly reduce not only CO2, but also nitrogen oxides emissions, as well as completely eliminate emissions of fine particles (soot) and sulphur oxides. In addition, the use of liquefied natural gas reduces the overall fuel consumption by tankers by 10-12%, which increases their energy efficiency.

LNG fuel is also easy to use. In particular, the combustion of LNG does not generate fuel sludge and, accordingly, does not require additional energy consumption for its disposal, which also reduces the volume of emissions. From 2018 to 2021, the Sovcomflot "green" tankers carried out more than 170 LNG bunkering operations.

Simultaneously, Sovcomflot is helping to develop the infrastructure for such bunkering. For example, in 2021 SCF and Shell initiated LNG bunkering for tankers in North America (Port Canaveral, USA) and in the Mediterranean Sea (Port Gibraltar). Work is also in progress to organise such

bunkering in the ports of Russia, including the seaport of Prigorodnoye.

Most of the world's LNG bunkering points use the shipto-ship method, when LNG is transferred from one gas carrier to another by a bunkering vessel. At the moment, the Prigorodnoye seaport is the world's first LNG bunkering point where it is supposed to refuel vessels directly from the export terminal.



ANTON SKIKEVICH, QUALITY AND RISK TECHNICAL MANAGER, SAKHALIN ENERGY:

– In 2024, Sakhalin Energy will receive two oil tankers under a long-term charter contract: Korolev Prospect and Vernadsky Prospect. Both vessels will use Sakhalin-2 liquefied natural gas as the main fuel. The very idea to deliver an oil

tanker to the LNG berth of the Prigorodnoye production complex occurred to us long ago. We conducted a lengthy comprehensive analysis of the future prospects of this solution. In 2016–2017, when the feasibility of building LNG-fuelled Aframax tankers was widely discussed in the shipping industry,

faced with a number of challenges. Firstly, the LNG jetty is designed exclusively for LNG carriers and meets the SIGTTO standards, which are fundamentally different from the SGMF standards used in the construction of vessels operating on LNG. In addition, there were other limitations: the lack of free time windows for upgrading the jetty, the extremely high cost of the modernisation work, limited space for new equipment and, of course, our obligations with respect to large-tonnage supplies. We considered many options, but almost all of them were associated either with huge expenses or with the withdrawal of the jetty from operation, which we could not afford for obvious reasons. At a certain moment, we realised that it was easier to make all required modifications to oil tankers rather than the jetty.

At this point, I would like to thank Sovcomflot for our partnership and joint project work, which made it possible to implement such a complex technical solution. A solution that no other company in the world has ever used before. The technical solution, which is based on the capacity of an oil tanker to receive LNG fuel from a jetty designed exclusively for large-tonnage shipments, is universal and requires just the installation of an additional receiving device. This approach makes it possible to refuel vessels not only from the jetty in the port of Prigorodnoye, but potentially from any LNG jetty in the world. Moreover, it can be applied not only to oil tankers, but also to other vessels, which, given the availability of such a device on board, could receive gas engine fuel from LNG jetties. At present, the design of the receiving device and its installation on a vessel has been developed, agreed with the design organisation and the ship classification society, and the work to implement it is already in progress.

To tell the truth, a part of the initially planned modifications to the Prigorodnoye LNG jetty still had to be made, but they were



we began a detailed study of bunkering such vessels directly from the LNG jetty of the Prigorodnoye production complex.

The benefits for Sakhalin Energy were obvious, both from the commercial point of view - we would use LNG which we produced ourselves, and environmentally - this would contribute to reducing our carbon footprint. However, we were

Prospect Vernadsky oil tanker

insignificant: the upgrade of the ship-to-shore communication and emergency shutdown system, including the installation of an additional pneumatic emergency offloading shutdown system, for which I express my gratitude to our colleagues from the Prigorodnoye production complex.

Marina Moruga

achievement

Thousands of Days, One Goal

SCF Endurance supply vessel team achieved an important milestone of 5.500 days without a lost-time incident.

The countdown began on 5 September 2006, when a reinforced ice-class vessel entered the port of Kholmsk for the first time and began work for the Sakhalin-2 project. It was built in Norway, and it is now operated by Sovcomflot under a long-term time-charter contract.

The decision to build multi-purpose reinforced ice-class vessels was made in 2004, before the installation of the PA-B and LUN-A platforms. SCF Endurance (originally Pacific Endurance), along with SCF Endeavour and SCF Enterprise, renewed the composition of the fleet (which was outdated by that time) operated under the Sakhalin-2 project.

The statistics of the champion vessel is no less impressive than the milestone. For 15 years, the vessel has made about 400 trips from the port of Kholmsk (supply base) to the company's platforms and back, has transported more than 300 thousand tonnes of cargo and travelled almost 500,000 nautical miles, which is equivalent to about 23 equatorial circumferences. Nevertheless, SCF Endurance remains in good condition and is ready to carry on for many years.

As Vadim Panin, Sakhalin Energy Logistics Manager, noted, the key to the accident-free operation of SCF Endurance is the synergy between the management company and the crew consisting of Russian citizens only. "It is comprised of top-ranked specialists who apply the best practices learnt while on board Pacific Endurance. Since then, the ship owner and the name of the vessel have



Pacific Endurance, archive photo

changed, but the attitude of the crew to occupational safety issues remains. We wish you further success. Fair winds and following seas!" added Vadim Panin.

Marina Semitko

november 2021



Motivation for Partners

On the sidelines of the Sakhalin Oil and Gas 2021 Far Eastern Energy Forum, Sakhalin Energy awarded its contractors for outstanding contribution to the development of the Russian Content in the Sakhalin-2 project.



"It is an excellent opportunity for us to show that the company highly appreciates our partners' contribution to the challenging task of developing the Russian Content in the Sakhalin-2 Project. In turn, this challenge gives a powerful boost to the development of the island's economy as a whole," said Roman Sinitsky, Deputy Finance Director and mainline gas compressor. "So far, we are

Supply Chain Manager.

PromSistemy was awarded for the performance of their engineering and technical personnel who not only did an excellent job reaching their targets during the summer shutdown of the gas infrastructure but also successfully replaced the electric motor at the OPF

merely taking our first steps, but our plan is to bring comprehensive capacities for the repair and maintenance of electrical and gas turbine equipment to Sakhalin," explains Grigory Trofimov, PromSistemy Executive Officer.

Yokogawa Electric Sakhalin received an award for the implementation of the project of a laboratory at SSU Technical Oil and Gas Institute that trains instrumentation engineers. "We are especially pleased to receive this award because our initiative is aimed at developing Sakhalin's human resources and creating a talent pool of highly skilled automation specialists. We intend to further continue this work," stressed Alexey Samsonenko, General Director of Yokogawa Electric Sakhalin.

Another award went to Schlumberger Vostok: its specialists participated in the substitution of the imported downhole drilling motor for directional drilling in the upper sections of PA-B production platform well with a motor made in Russia. In the future, similar equipment is planned to be used at all three platforms of the Sakhalin-2 project. "Schlumberger is Sakhalin Energy's long-term partner and, despite the fact that there are not that many Russian genes in our company's DNA, they have a history that is 90 years long. To ensure even more effective and productive cooperation with Sakhalin Energy, we will continue to expand the Content and VR Manager.

range and deepen the localisation of our technologies," said Rodion Musaev, Executive Director of Schlumberger Vostok Representative Office in Sakhalin Oblast.

INTRA Services Company and STATS (UK) LTD were awarded for the successful implementation of the project on the isolation of a pipeline section at the LUN-A platform and hydrostatic tests of welding seams. The work was performed using Techno Plug - high-tech remotely controlled devices. This is the first step for Russian specialists to master the unique innovative technology. It is planned that in the future such work will be exclusively performed by INTRA Services Company specialists. "We have been working on Sakhalin for more than five years. Last year we finally obtained a Sakhalin "registration": we opened INTRA Sakhalin, a fully operational company on the island with more than a hundred employees. We plan to keep growing by expanding our range of services through localisation of foreign services," shared his plans for the future Alexander Shilov, President of INTRA Group.

"For the second time in row, Sakhalin Energy awards its partners for outstanding contribution to the development of the Russian Content. This is becoming a good tradition which we intend to follow," concluded Dmitry Dubik, Russian

russian content

Teamwork for Non-standard Tasks

Sakhalin Energy hosted an awards ceremony for the winners of the competition for the best Russian Content development projects of the first half of 2021.

Eight initiatives had been Finance Director submitted for the competition. The best of them, according to the jury, were three projects implemented by the Technical and the Production Directorates. The winners included Andrew Hyde, Alexey Ponomarev, Maria Sunchugasheva, Sarah Indrelid Federation as a whole. Hannah, Maxim Makarov, Anna Roman Sinitskiy, Kosteva, Andrey Pshenichny, Alexander Dubok and Nikolay Fedorov.

Todd Perkins thanked the employees for their contribution to the development of Russian content and noted the importance of this work not only for Sakhalin Energy, but also for Sakhalin Russian Oblast and the

Supply

and the Production Directorates among the awardees. He explained: "This pool of winners vividly demonstrates that today projects that contribute to the development of Russian content are initiated by the company's engineering and technical specialists." Roman Sinitskiy em-

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Chain Manager, added that he Russian enterprises in the Sakhawas especially pleased to see lin-2 project not only ensures the representatives of the Technical company's competitive advan-

tage in the times of the pandemic, but also contributes to a more efficient and sustainable development of Sakhalin Energy.



At the end of the awards ceremony, the floor was given to the winners. "Participation in the competition facilitates the involvement of employees in the implementation of import substitution projects. The development of Russian content largely depends on teamwork. Good teamwork makes it possible to find optimal solutions to nonstandard production tasks," said Maxim Makarov, Head of the Static Mechanical Equipment Subdivision.

> The page is prepared by Virginia Lakomova

sakhalin oil and gas - 2021

Working Towards Becoming the Key Service Company for Sakhalin Energy

Establishment of the Sakhalin's first sectoral cluster for the oil and gas industry is a colossal effort to support Russian manufacturers. According to Grigory Trofimov, Executive Director of PromSistemy, today it is an effective mechanism that can provide favourable conditions for the formation of competencies of specialists working in the niche business.



- Grigory, the history of collaboration between Sakhalin Energy and PromSistemy officially began on the sidelines of the Eastern Economic Forum in 2019. It was then that the parties signed a memorandum of cooperation in the field of localisation of services for the maintenance of gas turbine equipment. What are your achievements and successes in this area?

 In total, we have been providing services to Sakhalin Energy for three years already. The first year was a trial period, when we focused on adaptation to the Sakhalin-2 project. It happened so that last year, in the conditions of the pandemic, PromSistemy was one of the Russian companies engaged in the maintenance of the Hitachi H-25 gas turbine unit at the Onshore processing facility. Despite the restrictions associated with COVID-19, all set tasks were performed safely, efficiently, and according to schedule. This year, the geography of our specialists? participation in the project has expanded. In addition to the OPF, the list of our work sites was supplemented with the LNG plant, where we serviced an expanded range of equipment, and the Piltun-Astokhskoye-A oil and gas production platform. In general, we have tried our hand at entirely different Sakhalin-2 facilities, both onshore and offshore.

Is the offshore project in the oil and gas sector the first shot in the history of the company?

- No, we already had experience in working on an offshore platform. It was a platform of North Caspian Operating Company N. V. (NCOC), one of the largest oil and gas enterprises in Kazakhstan. Then PromSistemy overhauled several gas turbines. We had a special reason for taking that step: it was an excellent opportunity for us to prepare for cooperation with Sakhalin Energy.

to carry out fairly complex repairs without the involvement of foreign companies...

- We initially set ourselves the goal of reducing the share of foreign employees and providing opportunities for the use of domestic components instead of imported ones. But the key feature of PromSistemy is its very narrow focus: we are operating in a niche business. We can tackle ambitious tasks and solve them effectively. This requires careful preparation, which takes a long time. There are no other companies in the Russian market that are ready to carry out such work, but I really hope that soon there will emerge some and their number in our segment and other segments will grow.

There is a certain stereotype that many kinds of work at industrial enterprises are impossible to accomplish without foreign specialists. PromSistemy has been demonstrating that this is not so: we systematically do more and more complex tasks. By the way, the coronavirus pandemic played an important role in this – in the new conditions, we were able to prove that challenges that had been once considered insurmountable were in fact perfectly surmountable. Although there is a shortage of technical personnel, I would like domestic specialists to demonstrate their capabilities in various fields to the maximum and improve their professionalism.

Production equipment requires constant care, thorough examination by experienced specialists, timely preventive measures. This is a given. For this reason, we need professionals who can perform maintenance service work for the customer as best as possible.

- Qualified personnel have always been worth their weight in gold. What does the company do to find and recruit such employees?

- We do not treat this issue as a problem; we think strategically. Given our narrow specialisation, we have a staff of employees who have grown professionally alongside with the company and made up its gold pool. To preserve it, we, firstly, provide competitive working conditions, and secondly, we systematically and continuously develop our personnel. In other words, we invest in our employees, because they create a positive image of the company through their work and attitude to business. In turn, the more successful we become, the larger number of highly qualified specialists join our ranks. This is a law of business.

for the repair of rotating equipment. Our development strategy is directly associated with the implementation of this project.

We were among the pioneers in this area. We have signed an agreement with the Corporation for the Development of the Far East and the Arctic, and received all the benefits announced by the Sakhalin Oblast Government for residents of the Yuzhnaya Territory of Advanced Social and Economic Development (the SIP is going to be built in its territory. - Ed. note). Today, many small Russian companies have difficulty with financing, so the proposed benefits, including a reduced tax rate on the company's property, are a weighty argument to try and do our business here, within the framework of the Sakhalin Industrial Park project.

We are focused on developing the practice of long-term service contracts – we have already received significant support from Sakhalin Energy in this area. If everything goes according to the plan, this collaboration will help us pave the way for other domestic companies.

Expanding our capabilities, we have registered a new organisation, Sakhalin Turbina Service, which is going to build a repair facility for servicing dynamic and power equipment in the territory of the industrial park. It is planned that Sakhalin Energy will engage this company in performing specialised works as part of long-term service contracts. A corresponding cooperation agreement was signed between the regional government, Sakhalin Energy and Sakhalin Turbina Service at the Sakhalin oil and gas 2021 Far Eastern Energy Forum. The work to design the repair facility will begin in December. We expect to complete its construction in two years.

Being a resident of the first industry cluster in the region, we intend to become Sakhalin Energy's main provider of dynamic and power equipment maintenance services. Our goal is not just to provide a much-needed service, but to deliver quality solutions on time and in compliance with high safety standards.

- What are the prospects for the development of the project to build the new repair facility on Sakhalin?

- We see it not as a project that is good for the company's image, but as a truly promising project – not only within the framework of cooperation with Sakhalin Energy, but also in terms of our presence in the region (there are a lot of potential customers here which can offer us huge scopes of work).

In this context, the enterprise under construction will guarantee our further development in the region, and

- It looks like you came to the project fully prepared, including in terms of labour safety.

- I will say this: we were well aware of the company's industrial safety standards - we had studied them for two years in detail before executing the first work orders. We understood perfectly what was required of us, and were prepared to change. For PromSistemy, it meant mastering the unique practices that can be learnt at all Sakhalin Energy facilities. Synchronising with the company's high standards was not difficult. This approach has a lot of advantages and pays off well: by meeting the most advanced safety requirements, we protect ourselves from potential problems.

- Today, there are quite a lot of companies in the Russian market that are engaged in the resale of services and components of foreign enterprises. Few of them, however, are focused on developing their own potential and are able foreign specialists on our staff who have decided to work in the Russian market.

Of course, we have our own personnel selection system – we comprehensively analyse the market in this respect. Production equipment requires constant care. thorough examination by experienced specialists, timely preventive measures. This is a given. For this reason, we need professionals who can perform maintenance service work for the customer as best as possible.

Sakhalin Energy is implementing the Sakhalin Industrial Park (SIP) construction project. PromSistemy has already become a resident of the SIP. Could you tell us about the advantages of working on an innovative platform?

- Establishment of the Sakhalin's first sectoral cluster for the oil and gas industry is a colossal effort to support Russian manufacturers. Today, it is an effective mechanism that can provide favourable conditions for the development of the competencies of domestic specialists. As a SIP resident, we are participating in the creation of a workshop

I will boast about a remarkable fact: there is a number of consequently, the creation of new services. It is quite probable that we will follow the path of producing hightech products, which would not be possible without a production facility.

> Our plans for the next year are to increase the number of personnel at Sakhalin Turbina Service to 150 people (which is more than twice the current number), and start working not only with Sakhalin Energy, but also with other large customers in the Far East. We associate the expansion of our activities in the medium term with the construction of the repair plant. In addition, we are focused on developing the practice of long-term service contracts - we have already received significant support from Sakhalin Energy in this area. If everything goes according to the plan, this collaboration will help us pave the way for other domestic companies. It is no secret that long-term contracts guarantee stability, which is essential for the development of any business.

> > Interview by Marina Semitko

eWellBook Makes a Difference

Sakhalin Energy's eWellBook Project won the Best Digital Solutions in Oil and Gas Industry competition, held as part of the Smart Oil & Gas: Reliable Data IT Forum. We discussed the prospects of the project with the specialists of the company's Technical Directorate.

THE EWELLBOOK PROJECT WAS FIRST MENTIONED IN THE VESTI NEWSLETTER IN SEPTEMBER 2019. CAN IT BE CONSIDERED THE APPROXIMATE DATE OF THE LAUNCH OF THE PROJECT?

Sergey Nikitin, Head of the Technical Data Management Section: "It was the period of the first test of the project's capabilities during the Well-by-Well review – the annual meeting devoted to the analysis of wells. It was the first time that all data had been transmitted directly from eWellBook, which means "electronic well file". The data were supplied in real time from the corporate warehouses – Subsurface Data Warehouse, eWIMS, UNICA, and others. The participants of the meeting received complete information on the productivity of the Piltunskoye field in general and each well in particular."

IT SOUNDS LIKE A REVOLUTIONARY

Sergey Nikitin: "I'd rather say "evolutionary". eWellBook saved us the trouble of adapting additional materials and presentations. Over the years, we had become used to the fact that holding a well or field analysis meeting involved long and tiresome preparations – collecting a huge amount of reference information, stored in different places, into one package. This takes hours and hours of work – far longer than the meeting itself.

IS EWELLBOOK OUR COMPANY'S KNOW-HOW OR IS IT THE RESULT OF A GENERAL TREND TOWARDS DIGITALISATION?

Sergey Nikitin: "Over the previous decade, we made two attempts to introduce an electronic well data book, but they did not yield the desired result. Having studied the industry experience, in particular, the practices of our colleagues from Shell, we decided that instead of trying to rebuild the process to suit the ready-made solution, we would create a product with the required functionality on the basis of an analytical platform. The task was accomplished by the company's specialists: the engineers knew what product we wanted, and the data managers knew how to make it. As a result, the time to create the product was significantly reduced, and its functionality perfectly meets the company's needs. Thus, eWellBook is an industrial trend. The digitalisation of a particular company, certainly, is the know-how of its employees."

IN OUR CASE, THESE WERE SPECIFIC

technologies to use to make it real, how to find an easier way of creating what we needed without complex mathematical tools."

AS FAR AS I UNDERSTAND, THIS IS EGOR'S AREA OF RESPONSIBILITY. WHAT DIFFICULTY DID YOU MEET WITH WHEN YOU BEGAN TO DEVELOP THE DESIGN?

Valentin Tarsky: "Me. He met with me." *(they laugh)*

Egor Kasprov, Lead Technical Data Management Specialist: "Our subdivision did tremendous work to lay the foundation for the implementation of the eWellBook Project. We understood how much effort it took our colleagues to prepare such reports, so we searched for a solution by analysing all available information. In the course of the search, we realised that we had to go our own way, because our company was unique in many aspects and no standard solution fully met our needs. So we began to systematically connect chart after chart, source after source, and our product started to take shape. We prepared and verified data and collected them into a single document. The next logical step was their presentation at the annual meeting."

Valentin Tarsky: "I often compare eWellBook with a person's medical record. Everything is the same here: different specialists make records of temperature measurements, flow rates, and so on, and the record book eventually turns into a volume with the history of the well's life. Our "nurses" and "doctors" always have it at hand, only now they can get access to the eWellBook from any computer and get complete information on the spot instead of searching through the vast media network."

WE SOMETIMES CALL EWELLBOOK A PRODUCT, AT OTHER TIMES – A TOOL. WHAT DOES IT REALLY LOOK LIKE?

Valentin Tarsky: "It resembles a book with bookmarks and all relevant records: when and how a well was drilled, what equipment was run into the hole, what repairs were carried out, and so on. It is almost impossible, even for a super-experienced specialist, to keep all this information in mind, let alone data on several wells."

Egor Kasprov: "eWellBook contains all key parameters that either indicate potential problems, or vice versa, show that everything is in order, and you need not waste time on this well."

SO THE ANNUAL WELL ANALYSIS MEETINGS HAVE BEEN HELD



From left to right: Sergey Nikitin, Egor Kasprov and Valentin Tarsky with an award for winning in the category Best Low-Code/No-Code Solution in the Oil and Gas Industry

and Lunskoye teams. The coverage expanded more and more, and we had new ideas about the functionality. For example, initially the emphasis was on production wells; then eWellBook covered injection and absorption wells."

Egor Kasprov: "When we showed the Piltun team's toolkit, the developers of the Astokhskoye and Lunskoye fields estimated it highly. It allows using less static information – everything is translated into dynamics and figures. Each field is unique, so it is impossible just to copy everything: although the principle is the same, the strategic content is different."

Sergey Nikitin: "This year, we have added another useful feature – the Opportunity Register. It comprises ideas about what can be done in a particular well or field to improve its reliability and productivity. Thus, it is possible to evaluate the effect of different proposals and decide which of them will be included in the action plan. This work was carried out before, but each specialist introduced initiatives using different systems, which blurred the general picture. By the way, this is Roman Alyabiev – one of the initiators of the new suggestion."

ONE OF THE AUTHORS OF THE OPPORTUNITY REGISTER JOINED US IN OUR DISCUSSION. ROMAN, HOW DID YOU JOIN THE PROJECT?

Roman Alyabiev: "The idea of creating eWell-Book was in the air, and the Piltun team was the first to implement it, which we highly appreciate. After that, we immediately assessed the potential of its application in the Astokh area, worked out what needed developing, and what – polishing and fine-tuning. Our goal is to make a complete transition to digital records."

IS EWELLBOOK USED ONLY

be developed in terms of quality rather than coverage."

SO YOU ARE NOT STRIVING FOR FULL COVERAGE?

Egor Kasprov: "Technology is permanently developing, and we try to keep up with the times. We are going to use modern developments in analysis, connect new types of data, implement forecasting and, possibly, self-training of the model."

Roman Alyabiev: eWellBook has become a polished tool for analysing the history, events, and initiatives regarding each well, and we continue to develop it, searching for new opportunities. For example, we are planning to introduce in-depth analysis of well parameters, compare productivity trends depending on reservoir properties. Let me provide one more example. Until this year, the register of geological and technical activities was kept as tables, which was very inconvenient in practice. We have managed to implement its graphical visualisation. This is a new functionality, which can give impetus to the development of other projects."

LET'S GO BACK TO THE BEST DIGITAL SOLUTIONS FOR OIL AND GAS INDUSTRY COMPETITION. WERE YOU SURE THAT YOU WOULD WIN IT?

Sergey Nikitin: "We were sure of the usefulness and quality of our product. But there were many strong participants in the competition, some of them superior to us manifold in terms of the potential and scale of achievements. I was aware that the competition was tough and I am very happy that we won. I believe we largely owe our victory to Irina Sakharova, who acted as the coordinator of our participation. Many thanks to her for her work! It was one of those competitions, participation in which is no less pleasant than victory, because they allow you to 'sneak a peek' at the tasks and solutions of our colleagues from other oil and gas companies. During the plenary discussion, someone said an interesting thing: on the way to digitalisation, companies are moving away from the 'customer - performer' paradigm and accept the fact that the customer is also becoming a key performer. Digitalisation is impossible to implement if it is imposed from the outside; it must be an internal need of the enterprise." Valentin Tarsky: "The victory was not our main goal, but the award made me happy, especially because we competed with teams that had very interesting projects. This means that we are doing something useful not only for our company, but for the industry as a whole. I think that a year from now we will announce a new version of the eWellBook, i.e., eWell-Book 2.0."

round table

SPECIALISTS – VALENTIN TARSKY AND EGOR KASPROV. WE ARE GLAD THEY HAVE JOINED OUR CONVERSATION.

Valentin Tarsky, Head of Value Realisation Subdivision: "One of the project objectives was to get rid of excessive paperwork, free up the engineers' time that had been spent on generating paper copies and updating information and let them use it more efficiently. When the company embarked on digitalisation, Egor and I began to generate ideas, trying to design a product that would meet the company's needs and could be created using available resources."

SALIERI, AN ANTAGONIST IN ONE OF A. PUSHKIN'S PLAYS, SAID: "IVERIFIED HARMONY USING ALGEBRA."

V.T .: "I don't know about harmony. I had a picture in my mind, but I did not know what

IN THE NEW FORMAT SINCE 2019. IS THAT RIGHT?

Sergey Nikitin: "The procedure for the meeting has changed: eWellBook has replaced presentations. All information comes straight from the sources. The discussion is meaningful, time is used efficiently, and the decision-making process is much faster than before. Participants in the meetings even make proposals about expanding the functionality of the product."

YOU'VE TAKEN THE WORDS OUT OF MY MOUTH – I WAS JUST GOING TO ASK YOU A QUESTION ABOUT THE FURTHER DEVELOPMENT OF THE PROJECT.

Sergey Nikitin: "Having created the eWell-Book together with the Piltun team, we aimed to extend the project to the Astokh

AT ANNUAL MEETINGS? IS THERE A LIMIT, A CERTAIN CEILING FOR THE DEVELOPMENT OF THIS PROJECT?

Egor Kasprov: "eWellBook is by no means a tool that is used once a year and is kept on the shelf the rest of the time. It has actually become an indispensable guide for engineers." **Sergey Nikitin:** "We created a "rack" for data, which has allowed engineers to quickly get the information they need, which has significantly expanded the range of application of the product compared to what was planned originally. The engineers themselves played a significant role in this."

Valentin Tarsky: eWellBook is constantly evolving: it is turning from an information aggregator into an analytical tool, which is already doing part of the engineer's work. But we want the tool we are creating to be really convenient to work with, so the project must

Prepared by Elena Gurshal

<u>project</u>

Non-Transferable Key

The use of digital signatures is being actively introduced into the document management system at Sakhalin Energy. First the developers of the project analysed the business processes, weighed its risks and costs, and only then went on to implement it. Dmitry Lazarenko, Head of IT Portfolio and Projects Management Division, shared with us the details of the project.

– Dmitry, the use of a digital signature (DS) is no longer extraordinary or a fad. Today, it is an absolute necessity. Even so, was there any specific factor that prompted you to start this experiment?

- The first factor is the overall digital strategy currently implemented at our company. The digitalisation of the document flow is one of its key areas. The introduction of digital signatures, in turn, is an important part of digitalisation since it contributes to the reliability and safety of processes. And safety, as we all know ...

- ... Is a priority at Sakhalin Energy. I see. How long have you been working on this project?

– Almost two and a half years. Most of the time was spent on the implementation of the hardware and software systems and on setting up the administrative processes. Our IT infrastructure is embedded in Shell's infrastructure, which does not have this functionality, so we were the first to add it. And like all pioneers, we had to fight our way through technical difficulties. Ad aspera per astra if I may say so.

- But you eventually got to see the stars, didn't you?

– Not until a year and a half after the launch of the project. This is the time it took our engineers, together with their colleagues from Shell, to build - by trial and error - a verification centre (Public Key Infrastructure (PKI) service) into the current IT infrastructure of the company. They had to act with the caution of mine clearing specialists so as not to damage the other IT services.

- In what cases can a digital signature be a lifesaver?

- In our company, many employees work at the production facilities on a rotational basis. The other part of the personnel (for example, HR and finance staff) are located in offices in Yuzhno-Sakhalinsk. According to Russian law and Sakhalin Energy's internal policies, all employees are required to sign various documents: orders, statements, invoices, etc. However, it is not always possible to immediately get employees working in the same office building, let alone those working rotational shifts, to put their signature on a document. In addition, sending a document from one facility to another takes a long time; what is more, there is always a risk of it getting lost on the way. It was these difficulties that gave impetus to the introduction of digital signatures.

- What categories of employees will be using digital signatures? And which kind of digital signatures - basic, enhanced nonqualified, or enhanced qualified?

- All employees of the company can use digital signatures. However, they cannot choose which kind of digital signature to use based on their preferences. It will depend on the business process and legal requirements. For example, today we already use basic digital signatures when working on the ESS/ MSS portal. In simple words, by entering our name and password, we confirm that some action in this system is performed by a specific person. Email is another example of using a basic digital signature: to send an electronic message on your behalf, another person would need to have your GI-card and know your password to enter the system. Thankfully, this is not possible if you strictly follow the information safety rules.

- What do you do if you need to approve some electronic document or spreadsheet (e.g., a report, a statement, or a timesheet), especially if that has to be done by several people?

- In this case, we will need an enhanced non-qualified digital signature, which also confirms the signature of a certain person, but does it using special means of crypto protection. A special digital signature key, created on the basis of the secret key stored on your GI-card and the structure of the document itself, is embedded in the document, using your GI-card key. Thus, if any change is made to the file, no matter how insignificant it may be, the code will be broken and the digital signature will become invalid, of which you will be immediately notified by the verification centre.

Many government agencies require that reports and other correspondence be submitted in electronic form only. In this case, an enhanced qualified digital signature is indispensable. This kind of digital signature is based on the same solutions as the nonqualified one. That is, technically, it is not different from the solutions we have already implemented at the company. There is one important difference, however: the entire complex of hardware and software systems needs to be certified by a specialised agency at the Ministry of Telecom and Mass Communications. This means that such a signature is guaranteed by the state. In this case, we are using the services of an external provider.

– As I see it, a digital signature is like a key that cannot be transferred to anyone. A nontransferable key. Please tell us which company unit was at the forefront during the testing.

- The Technical Directorate tested digital signatures to approve timesheets for Schlumberger staff working at our facilities. Then our colleagues from the HR and the Production Directorates joined in. Together, we implemented a large-scale pilot project to test digital signatures in signing work schedules for rotational personnel. We managed to embed the DS keys on the same cards that are used for accessing work computers - this is a very important achievement indeed! Our users will no longer need any additional flash drives or cards to use their digital signatures. Many thanks to Ekaterina Mitsuk, Olga Tyumentseva, Maria Gatilova, Alexey Bogomazov, Valery Formazonov, and Ivan Muratov – their help was an important contribution to the success of the project.

- So, if I understand correctly, the DS service is now available to users? What steps should employees take to use it?

 Each employee has a simple digital signature by default. You can get an enhanced non-qualified digital signature by sending a request to the Information Security Subdivision at SEIC-Information-Security@sakhalinenergy.ru. In case your functional duties require an enhanced qualified digital signature, send a request to the Corporate Governance and Internal Control Systems Subdivision at SEIC-MoA@sakhalinenergy.ru.

- What conclusions did you make following the pilot project? What bottlenecks did you identify and how did you manage to unblock them?



- We encountered various difficulties. I will tell you about two of them. The first one is user errors. There were lots of them despite the fact that we had trained the staff (conducted introductory sessions and issued detailed instructions). So, we had to provide additional explanations. The second problem was related to the fact that a digital signature is just a tool that needs to be built into the process. If the workflow has not been digitised yet, there is a risk of nonconformances. You can't put the cart in front of the horse, can you? We are working on these problems, and I believe we will solve them.

- Let us make a small contribution to personnel training: what questions are you most often asked at introductory sessions?

- For example, this one: "If I print a file with a digital signature, how do I know that it has been signed?" I must clarify: a document with a digital signature exists only in electronic form. If you need to use a printed document, you will need to put a regular signature on it.

Another popular question is why the image of a digital signature is not visible in the signed Word and Excel files. The fact is that Microsoft views such files as an array of data rather than as printed documents. Therefore, the information that the file contains a digital signature is only available in a special menu that is visible when the file is opened. The PDF format, on the other hand, represents an electronic file as an image of a printed document, so it displays the digital signature as a clickable graphic element. By clicking on it, you get access to the details of the digital signature.

- What are the main benefits of the project: saving time, saving money, or some other advantages?

- Of course, the main benefit is time saving. Given that time is money, this helps to save costs. In addition, the use of digital signatures makes it possible to increase the reliability of electronic document management (a document signed with at least one signature cannot be changed) and reduce the risk of documents getting lost. The main advantage of the project, however, is making the life of our colleagues easier. Prepared by Elena Gurshal

The Wall for the Pipeline

Sakhalin Energy completed construction of the landslide protection structure at one of the most challenging sections of the Sakhalin pipeline system.

"In Makarov district the section of pipelines runs through a hilly area with the height difference of four hundred meters in some sections. In such conditions, the risk of landslides is very high when a large mass of soil is pushed downward by water, own weight or seismic shocks. Landslides can have different speeds, but in any case, they pose a serious hazard to both people and production facilities" - says Aleksey Gulyaev, Pipelines Operations Manager.

He noted that there were two goals to achieve. First is to build the retaining wall to keep soil behind it from collapsing and sliding, and second - to make the drainage system to prevent accumulation of water on the slope section. Works took two years. 55 reinforced

concrete piles were installed at the depth of 18 meters which were then connected with grillage (horizontal foundation element). This helped to build a reliable structure to retain the soil.

In September 2021, the new protection structure was tested for strength. Due to heavy cyclone in Makarov district, 20 mud flows descended. "After the cyclone, we immediately inspected the pipelines focusing on the landslide area. The wall and drainage system proved their efficiency – the soil remained in its place and did not descend from the slope" - says Alexey Gulyaev.

Also, in 2021, the company completed large-scale work to clean up the pipeline protection right-of-



way area from trees and shrubs. This has helped to ensure a safe working environment for the pipeline maintenance teams which regularly inspect and maintain the right-of-way.

Pavel Ryabchikov

november 2021



Improving and Winning

At Sakhalin Energy, over the years, continuous improvement has been recognised both at the company level and within individual divisions. The Finance Directorate also has a recognition programme for initiatives taken in this direction. On a quarterly basis, its management determines the best projects, taking into account such criteria as the level of economic effect, the impact on the performance indicators of the directorate, cross-functional interaction, innovation and the possibility of replicating the proposal, and others. Each quarter's leaders participate in choosing the best Finance Directorate initiative of the year. At the end of the Q1 and Q2, three winning projects were selected:

RUSH DELIVERY ARRAGEMENTS AND COST OPTIMISATION

Department: Supply Chain Management (SCM)

- Project Team: Alexey Zayko, Natalia Yun, Tatyana Gremblat
- Description: Responding to business needs, SCM department efficiently and in a short timeframe arranged
- for delivery of materials while meeting all shipping requirements. The goods were consolidated on a single
- aircraft, thus achieving substantial savings and delivering the required equipment within four days.

DEVELOPMENT OF IT-REQUEST BASED WBS AUTOMATED SYSTEM

Department: Finance Controlling jointly with IT/IM

Project Team: Olga Biryukova, Arina Shevchenko, Fedor Grigoriev, Anton Kim, Kirill Efimenko **Description:** A self-service IT portal was used as the solution to implement a system to register and track the cost item requests in SAP. A one-stop shop for registering cost item requests was developed jointly with IT. It helps save time through the automated processing and tracking of request status, use of preset workflow and notification templates, and with fewer deviations and extra checks.



Rush Delivery Arragements and Cost Optimisation

continuous improvement

MATERIAL WRITE-OFF OPTIMISATION

Department: Finance Controlling

Project Team: Vera Krivoruchko, Anna Durdina, Alexandra Finkelman **Description:** The material write-off process was revisited through a joint effort of Finance Operations department and SCM Materials. The document format was changed, areas of responsibility agreed upon, the new process documented and controls put in place. As a result, communication time between the teams was almost halved and processing time reduced by a third.

Svyatoslav Zaitsev

Experience by category

meeting

Sakhalin Energy hosted a meeting to share experience and engage Shell resources to address the tasks set before the Supply Chain Management Department in category management* more effectively. The meeting was attended by the Senior Managers of the SCM Department, Category Managers* and GM Contracts and Procurement Russia at Shell Sergey Yurlov.

"Supply Chain team is constantly interacting with the outside world contractors, materials and equipment suppliers, logistics and transportation companies. Category Managers mainly gain expertise in the workplace, so today's meeting is an excellent opportunity for them to broaden their horizons and get the support of our shareholder, which faces the challenges of the energy transition and adapts its business model to the new industry realities (including Supply Chain). Being the transnational corporation, Shell has a global footprint, mature approach to category management, extensive experience, established relationships and pricing agreements with many of the company's major suppliers. Therefore, Shell's support and experience will undoubtedly help us to improve our work with the supplier market," stated Marina Kim, Head of the SCM Compliance Control, Planning and Reporting Division. The agenda of the event included an overview of achievements in the categories for Production and Technical Directorates. One of Category Managers, Ruslan Pantyukhin, assigned to Instrumentation and Automation category, elaborate on the considerable reduction in the company's costs, achieved on the course of Robust-2020 programme. Additional savings were gained through the negotiation of costs for observation and delivery of remote

services, as well as from the terms and conditions of contracts concluded on the basis of Shell's global framework agreements. Particular attention was paid to a number of successful examples of the introduction of Russian substituted for foreign equipment, including those introduced through trial-testing. Supplies of materials and equipment from factories localised in Russia improve the Russian content level, reduce the company's risks and costs associated with transportation.

After having listened to the reports of the Sakhalin Energy Category Managers, GM Contracts and Procurement Russia at Shell, Sergey Yurlov emphasised the high quality of presented strategies, assured meeting participants of his The category teams highlighted the key areas where support from Shell would be especially desirable. They are as follows:

- Competence development (participation in trainings, seminars for sharing experience); Drafting contracts, preparing, and conducting negotiations with major suppliers (lessons learnt, successful contracting strategies, key success factors, application of Shell supplier framework agreements);

- Assistance in re-establishing business contacts with the Shell China Sourcing Office;
- Up-to-date information on Global Category Managers in Shell (assistance in obtaining upto-date data on the organisational structure, establishing working contacts);

- Reference information by category (information on Shell's long- and medium-term categorical strategies, pricing mechanisms, analytics, etc.).





support, and shared his strong believe, that constant contact with Shell's Global Category Managers is a key contributor to successful category management in the Company. "It is our duty to help set it up, so I look forward to continued cooperation with our team for the success-

ful implementation of current business needs," concluded Sergey Yurlov.

* A tool by which the company interacts with the market of suppliers of materials, equipment, and services. The company defines 17 major procurement categories, which are updated based on external and internal factors. Category Managers' objective is to respond quickly to changes in the external and internal environment and to ensure most favourable terms and conditions in contracts in the categories assigned to them.

november 2021







Staying Out of the Line of Fire

The second stage of the Peak Corporate Championship is officially open. It will last until 10 May 2022. The new "leg" of the "journey to the peak" was the Winter Safety Day, which was held on 21 October at a number of the company's production facilities and other units.

LINE OF FIRE

The organisers of the Winter Safety Day paid particular attention to situations when an employee finds himself in the "line of fire." Many of us are familiar with the main idea of this topic from the Plasticine Crow, an old Soviet cartoon: "...Not only adults, but even toddlers / will clearly understand: / Do not stand and do not jump, / Do not sing and do not dance / at a construction site / Or under a suspended load."

In addition to lifting operations, people are subject to the risk of being in the "line of fire" when working at height or with falling, rolling, or flying objects, electrical and machine equipment, or tools. This risk also arises in the course of using vehicles or heavy machines, as well as when pushing objects. In other words, when at a production facility, you must keep your eyes open for hazards. Should you get distracted, you may find yourself in the line of fire.

The participants of the Winter Safety Day were shown a training video, which reminded them how to avoid this situation. Viewing of the video was followed by a discussion, where the emphasis was placed on the personal role of each employee in preventing such incidents. The participants into six blocks: general controls, and structures, vehicles, materials, detailed information on how this p the company, read "Time to Winter October issue of the Vesti newsletter.



of the event were proposed five topics to choose from and invited to discuss one of them in an interactive format.

PREPAREDNESS FOR WINTER

The topic of the first conversation was the importance of learning lessons from near-miss incidents, which are a kind of warning about potential accidents. It is important to realise that accidents can be prevented only if the hazardous conditions or actions that led to a near-miss incident are thoroughly investigated.

Discussing another topic – preparation of facilities for operation in the autumn–winter period, the teams focused on controls of winter risks, which were divided into six blocks: general controls, equipment, buildings and structures, vehicles, materials, and personnel. For detailed information on how this process is organised in the company, read "Time to Winterise Our Assets" in the October issue of the Vesti newsletter.

During the Winter Safety Day, due attention was given to preparations for the arrival of General Frost with his squadron of seasonal risks that people are faced with in everyday life – extreme weather conditions, slippery surfaces, specific features of winter driving, and activities during the New Year holidays. Participants of the event shared their experience and talked with their colleagues about what can be done to minimise potential hazards.

Another topic addressed at the event was healthcare and building collective immunity to diseases. This year's influenza vaccination campaign overlaps with the COVID-19 vaccination. Therefore, we recommend those who would like to know where and when they can get vaccinated to read the Doctor's Office column in this issue of the Vesti newsletter.

MOVING ON

The Winter Safety Day is over, but the Peak corporate championship continues; so does the personnel survey as part of the Goal Zero programme. As usual, all company's and contractors' employees can take part in both. We invite everyone to send your responses to the questionnaire, including to the open-ended questions regarding the preservation of capability for work in the changed operating conditions, as well as occupational safety status in your unit.

Please be informed that two long-term championship initiatives – the daily step counting competition and the Professional Life Hacks video contest with recommendations for safe and efficient work – have been extended. You can enter your step recording data into the system until 31 December. Videos with life hacks will be accepted until 30 November 2021.

We hope you participate in the Peak corporate championship events, score points, and help your team to get to the top of the standings and be a winner!

doctor's office



Do Not Waste Any Time – Boost Your Immune System

Sakhalin Energy launched an influenza vaccination campaign. It will last until 15 December 2021, that is, throughout the first part of the autumn-winter season, which may be more difficult in terms of the epidemic than in the previous year.

Last year, the mass vaccination of the population and a number of anti-COVID-19 restrictions helped to contain the epidemic of influenza in the territory of the Sakhalin Oblast. This year, the attack of the virus may be stronger if the vaccination campaign is less active than before. To avoid this, Sakhalin Energy's

Vaccination or revaccination against COVID-19, according to medical workers, can help to avoid this hazard. It is important to remember that the interval between the flu vaccination and the vaccination against COVID-19 should be at least one month. For information on combining different vaccinations and the required intervals between them, contact your doctor or the nearest vaccination station.



Corporate Health Section specialists recommend building immunity against the flu through vaccination.

At present, production site staff (with blue and green GI-D cards) can be vaccinated locally – at medical centres, office staff – at the International SOS Clinic or as part of a travelling vaccination programme according to the schedule (to be announced at a later date).

Vaccination is also available to company employees and their family members of any age by appointment in medical institutions of their choice in accordance with the Health Insurance Plan.

"We recommend getting vaccinated to everyone who has no contraindications. By doing this, you will protect yourself from complications that can be severe and cause serious harm to your health. We must take into account that any of us can "catch" not only the flu, but also COVID-19. In this case, the risk of negative consequences increases twofold," says Andrey Lee, Lead Specialist of the Corporate Health Section.

WHAT TO DO IF YOU HAVE ARVI SYMPTOMS

In case of ARVI symptoms (fever, cough, sore throat, sneezing, stuffy nose, chills, muscle pain, etc.), please do the following:

– stay at home;

 immediately tell your line manager and the Corporate Health Section at SEIC-Health@ sakhalinenergy.ru about the ARVI symptoms;

– arrange a home visit by a doctor by calling your local medical centre or the hotline (tel. 1-300, ext. 4). Foreign employees of Sakhalin Energy can go to the International SOS clinic;

 after seeing a doctor, inform your line manager and the Corporate Health Section of the doctor's prescription.

The page is prepared by Pavel Ryabchikov

Gaining Height, or Why Gas Prices are Rising

Over the past six months, gas markets in Europe and Asia have seen a surge in prices for the blue fuel. As a rule, in summer, its price goes down and then rises during the peak gas consumption. But in 2021 it continued to rise during the spring and the summer and the autumn has set new exchange price records.

There is no single global and even regional gas price. In Europe and Asia, in addition to long-term contracts for the supply of gas at a fixed price and its regular revision, electronic trading platforms and gas hubs are used as the central point of market pricing for the blue fuel. A gas hub is a sort of a distribution centre typically located in the heart of gas transportation infrastructure (GTS), such as gas pipelines, LNG terminals and large ports.

In Europe, the main gas hubs are:

- NBP (National Balancing Point) - a conditional point of gas supply in the gas transportation system of Great Britain that represents Europe's most reputable natural gas spot market;

- TTF (Title Transfer Facility) - a virtual exchange point for natural gas in the Netherlands;

- NBP was the first actively developing gas hub in Europe that, similarly to its larger American counterpart, benefited from open market regulation, significant domestic production (in the North Sea) and high consumption. In addition, Great Britain gets pipeline gas from Norway and imports LNG. TTF profits from the huge, but now rather depleted Groningen gas field, around which the extensive pipeline network of continental Europe has been built. TTF also has potential for the LNG import.

Although Asia has not yet formed centralised gas hubs, the main gas importing countries use, along with long-term contracts, local exchanges, and electronic platforms, such as JKM (Japan/Korea Marker), to buy spot LNG shipments in order to meet the demand during peak gas consumption.



Source: investing.com, finance.yahoo.com

S&P Global Platts reported that Asia LNG Index for November spot shipments to the region rose by US\$ 2.82 per MMBtu (million British thermal units) from the previous day of trading to US\$ 34.47 on 30 September, or about US\$ 1,231 per thousand cubic meters. At the same time, the price of November natural gas futures on the ICE Futures exchange on 30 September reached US\$ 1,102 per thousand cubic meters, according to the exchange data.



Source: fitchratings.com

НОВОСТИ АКЦИОНЕРОВ

were decommissioned as part of the development of the green agenda in the region, while the residual capacity was not enough to fully meet the demand.

The uncontrollable gas rally has led to the actual energy crises throughout Europe with record high electricity tariffs. Some EU countries have even started to introduce emergency measures to cap gas and electricity tariffs.

According to the Dutch ING Group bank, the following factors could save the situation: — Immediate start of gas pumping through the Nord Stream-2 gas pipeline. Gazprom was ready to start it on 1 October, but European regulatory bodies have organised a complex bureaucratic procedure that will last until 2022. As a result, Russian gas from Nord Stream-2 is unlikely to reach European consumers this winter;

- Lower demand for LNG in Asia, especially in China. Since this is unlikely ahead of the upcoming winter, only Europe's willingness to pay much more for LNG could draw some of the gas traders' attention to the old continent;

 Prompt return to the old tried-and-tested energy sources – coal and the peaceful atom*. Plans for the transition to "green" energy will have to be postponed for the distant future; and

- Weather conditions. Much will depend on whether the upcoming winter is going to be warm or cold.



At the same time, prices can go up and down depending on weather conditions, the filling level of gas storage facilities and other factors, and do not always reflect the real figures for importers.

The blue fuel started to rise in price noticeably since mid-August, after supplies to the European Union via the Yamal-Europe pipeline fell sharply. Other key reasons for such price fluctuations include low reserves in European underground gas storage facilities (UGS). According to Gas Infrastructure Europe, the filling level of European UGS on 15 September was 70.92%, while the standard value was 92% at the beginning of the heating season (12 October).

Another factor is the acute shortage of liquefied natural gas. LNG effectively flows to Asia, where prices are even higher than in Europe. LNG producers tend to supply it there to earn more. The growth in LNG consumption was driven by hot weather and measures aimed at economic recovery. Asian LNG importers have to pay more due to the region's logistical features associated with remoteness from major gas suppliers and virtually zero pipeline gas supply.

Combined with the shortage of natural gas, dependence on wind energy played a cruel joke on Europeans. Due to the weather unfavourable for the generation of electricity by wind turbines, they had to use coal-fired power plants, most of which

If none of these conditions is met, and even more so, if additional problems arise with logistics due to the weather in the regions of suppliers, or production decreases due to possible accidents at production facilities, prices may break the current records. In this case, problems with gas supply in the European and Asian markets will only worsen.

Thus, high gas prices in the long term may lead to the situation where more and more importing countries will actively seek ways to use alternative clean, stable sources of electricity, which could significantly affect the development of the global gas industry.

Another scenario is to meet the needs by consuming a larger volume of contracted gas and using spot volumes in extreme cases only - to meet peak demand. This will enable more accurate planning of energy consumption costs and prevent sharp price leaps in one direction or another.

This is a better tactic for gas exporters because guaranteed cash flows based on contract prices provide a clearer picture of payback periods and future profits. On the contrary, if most of the world gas is purchased using exchange instruments, gas projects will face even greater risks, which may lead to a drop in gas production in the future.

* Nuclear energy used for peaceful purposes.

Prepared by Maxim Bakulin, based on the materials of S&P Global Platts

It is Not Nature that Has to Be Regulated, but the Impact It Suffers

That is where stands Natalya Onischenko, PhD in Geography, for whom the ecology has become her life's work.

- Natalya, recent studies show that teachers and parents usually have very little time (about four years) to get girls interested in natural sciences. In your case, they made it in time, didn't they?

I got interested in natural sciences at school, which I graduated with a silver medal. I really wanted to do something special, for example, to become an oceanologist. At that time, they had it only at the Leningrad Hydrometeorological Institute. However, there was one set back, which was not mentioned anywhere: they enrolled only boys, while I was offered to study land hydrology (rivers, lakes, swamps, and other water bodies). But life had other plans, and I married a student of the oceanology department, and, you can say, I studied land and sea all at once.

- So, I guess, this amount of knowledge gave your career a momentum?

- I strived to grow as a professional right off the bat. In 1985, I defended my thesis on Assessment of Anthropogenic Impact on Sakhalin Water Resources and got a research degree. I began to take interest in this topic, when I had to closely study the specifics of the economic complex of Sakhalin Oblast. It included water use, forestry, land use, and many other industrial sectors. From that moment on, I chose ecology.

Russian Federation and majored in Regional Management at the Academy of Public Administration. In 2002, I got a job in the Russian Ministry of Natural Resources as the Head of the State Environmental Expertise Department, followed by the position of the Environmental Advisor to the President of the Sochi 2014 Organising Committee from 2006 through 2015.

- How major were the first contact points with the Sakhalin-2 Project?

- I was involved in drafting the environmental section of the PSA and was a member of the working group of the Supervisory Board. In 2000, entering the new century and the new millennium, we did a monitoring research of huge importance to assess the environmental condition in oil and gas development on the Sakhalin shelf, as well as in the Aniva Bay, at the start of offshore oil and gas production projects.

When working at the Ministry of Natural Resources, I had the opportunity to set up the state environmental review of the materials of Phase II of the Sakhalin-2 project. Until now, they refer to this report for operational activities at almost all Sakhalin-2 assets.

We had really hard time as there was almost no legal framework, by-laws, and, most importantly, any experience of implementing similar projects in



NATALYA ONISHCHENKO

RF Category 1 Advisor, PhD in Geography, Corresponding Member of the International Academy of Ecology and Life Safety Sciences. Holds the title of Distinguished Ecologist of the Russian Federation. Awarded an honorary diploma and medal of the Russian Ecological Movement "For the Protection of Russian Nature".

- Today, a company has to follow all the innovations of the "regulatory guillotine", which is aimed at facilitating the relationship between business and the state. How hard is it to comply with it?

- Overcoming the challenges brought by the time of change, when business has to adapt to new requirements and approaches, we continue to follow the same project ideas. That is why we are successful. We are sure that the adverse environmental impact is minimal: the sea remains clean and there is no harm to aquatic biological resources. However, environmental monitoring should further develop by all means as it will make us even more confident that we do our best to preserve the unique nature of Sakhalin.

The environmental component is about a symbiosis of biology and geography. I am against using the term "ecology" in the environmental protection system, and I frown every time when they say, "Our ecology is bad" or something like that. Today, unfortunately, we have almost no "ecological standards" as they are. All restrictions are about production technologies. It is not nature that has to be regulated, but the impact it suffers. We have to improve the processes, reduce energy and resource consumption, increase safety of materials and substances used in the production.

- Currently, one of the challenges of energy security for the Russian Federation is the changing structure of demand for energy resources, including the replacement of hydrocarbons by hydrogen...

- In the nearest future, its demand in the world markets will skyrocket to an even larger scale than LNG. Sakhalin may offer favourable conditions for hydrogen production, but first we have to solve the problem of offsetting carbon gas emissions. Otherwise, commercial hydrogen production will have a carbon footprint.

Few people remember that they used hydrogen from barrage balloons of the anti-aircraft defence system for car engines during the siege of Leningrad back in the hardest days of 1941. People ran out of gasoline, there was no electricity, and they desperately needed the balloons. It was Boris Shelishch, a junior military technician of the balloon regiment, a talented self-taught mechanic, who found a way out. He came up with the idea of using foul hydrogen as fuel. Even now, this amazing concept seems to be genius and simple. But the first experience almost ended up with a tragedy as the mixture exploded. Then, the mechanic suggested making a water seal: they filled a used fire extinguisher with water to have the mixture sucked through it without the risk of explosion. Over the years the siege lasted, they converted several hundreds of cars to hydrogen. However, after the siege was over, they returned to conventional fuel, and the genius invention was tucked away in the archives for many years. This is very interesting and technically feasible, but first we have to produce hydrogen in an industrial scale, which is another, more complicated, energy-intensive and environmentally ambiguous story. However, progress is ongoing. I am sure that an environmentally sound solution will also be found for this problem. The Russian government has issued a decree with the action plan for the development of hydrogen energy in Russia. Sakhalin has been mentioned as one of the promising regions. We need energy, we need gas, we need exploration and more explored reserves. But what is more important, we need a proactive environmental strategy, which the company will have to develop to meet the challenges of the time.

By the time the USSR set up a special state environmental agency, I had already had some experience, having worked in the Water Balance Department of the Sakhalin Directorate for Hydrometeorology and Environmental Monitoring, in the Sakhalin branch of the Ministry of Water Resources, and in the laboratory of sustainable use of natural resources at the Institute of Marine Geology and Geophysics of the Far East Branch of the Russian Academy of Sciences. When I learned that there is a new nature protection committee, I went straight there. I am really glad to meet all those professionals and just decent, good people. I cannot help but think of Igor Farkhutdinov, ex-Governor of the region, and Viktor Danilov-Danilvan, the former Head of the State Committee for Environmental Protection.

By the time they started to develop the Sakhalin shelf, I already had general's stars, talking in military terms. I was the Head of the Regional Environmental Protection Directorate, got the title of Distinguished Ecologist of the

Russia. We were pioneers, learning in practice the state environmental regulation for oil and gas production in freezing seas.

- Sakhalin-2 is a quarter of a century old. Is it time to revise the original environmental impact standards?

I was always sure about it, and my opinion has not changed. Sakhalin-2 is one of the most environmentally friendly projects for the conditions, where its infrastructure facilities operate. However, for the industry to march on, both Russia and the rest of the world have to update their engineering systems, and what's more important, automate their industrial environmental control and monitoring systems. It is time of "green" technologies, harsh control over the risks, which are no longer hypothetical, a balanced, science-based approach to the upgrade of environmental infrastructure, especially treatment facilities, as well as regulatory requirements. Their implementation has to be obvious and transparent for the supervisory authorities and the public concerned.

Interview by Olga Moreva

Theatre: Part of Everyday Life

With the support of Sakhalin Energy, the Chekhov Sakhalin International Theatre Centre has implemented the Capsule Tour project. Residents of the Nogliki and Poronaisk Districts had a unique opportunity to visit two immersive performances of the regional theatre – Tuesday Is a Short Day and Playing the Classics. We asked Tatyana Korneeva, Director of the Chekhov Centre, to sum up the results of this extraordinary project.



- Tatyana, what can you say about the Sakhalin tour of the theatre? What was a success? What did you not manage to accomplish? What lessons did you learn from the new experience?

– I would put 10 points on a 10-point scale! I absolutely love touring the northern districts of the island. I admire the harsh nature of Sakhalin and enjoy communicating with local people. Last year, our tour was cancelled due to the coronavirus; we missed each other: the artists missed the audience, and the audience missed the theatre. This year we performed plays at two or three different venues. It was the first time we had done that. It was amazing! We did learn some lessons, but let them stay behind the scenes. What I can say is that we had some issues, mostly organisational, which we are going to analyse and avoid in future.

- What about the interaction between the audience and the actors? Traditionally, the stage has always been separated from the audience. Today this boundary is often erased, and the viewer actually becomes a participant in the play. This is exactly the type of performances you presented to the Sakhalin audience. Why?

— I will respond to your question with a question: why not? This is the first time we have taken part in the Sakhalin Energy grant competition. The first step is always the hardest, but in our case, it was definitely a success! Of course, we were anxious: we were not sure that the audience would be receptive of the innovation. It turned out, however, that we needn't have worried. It's great when the actor can directly contact the audience, pat any of the viewers on the shoulder and ask: "Hi, where do you think you have come?" This is how Roman Boltaev (the security guard in the Playing the Classics play) greets schoolchildren from the audience. The

reviews confirm that our choice was correct: people really want to see performances about what is going on "here and now", and also take part in them.

- Do you like theatrical performances in places other than the theatre? Does Playing the Classics change the attitude of young people to stories about "the ages long gone by"?

- I love this question. I think it very important that we have come down from the stage. The play was staged in the genre of a literary quest. A boring lesson of literature turns into an exciting journey: schoolchildren attend a party from A. Chekhov's Name-Day, dance at a ball from the poem by A. Pushkin, and find themselves in the heat of the battle from L. Tolstoy's Sevastopol Tales. Alexander Sozonov, a Moscow theatre director, came up with this idea a long time ago. He had excitedly talked about the "capsule tour", when you take just enough props to be put in one suitcase and make a walk-through performance in a school, a sports complex, or another similar place. The performance finishes with a trial, at which children decide whether they should study the classics or not. You should have seen how the boys and girls defended poets and writers who had become familiar to them in a short period of an hour and a half! I would like our theatre to have this project in its repertoire as long as possible. Personally, I think it must be patented and shown around the world.

- The second performance - Tuesday Is a Short Day - raises controversial issues that the spectator, who is a participant, or rather an accomplice, has to ponder during a journey into the world of blind maternal love. Why did you decide to have a frank conversation with the audience on this topic?

- Because it's a problem that must be discussed. Tuesday Is a Short Day is based on a dramatic story. A 48-year-old saleswoman from Blagoveshchensk with a monthly salary of 12 thousand roubles, Tanya by name, has raised a good-for-nothing son, and now she regularly goes to China for Spice, running all kinds of risks for his sake. She loves her son Andryusha so much that she is ready to spend her last penny on him and even go to prison. When I first read the text, I didn't know how it could be turned into a play and interactive at that. But Alexander Sozonov, the director, knew what he was doing: he brought the mother's pain to the foreground and made



the audience feel it. The scene is laid on a bus, where the spectators are passengers, travelling together with the main character, and the drama unfolds right before their eyes. When the play had ended and everyone had got off the bus, a woman from the audience said that both adults and teenagers should travel on that bus.

- Do you think Tanya is a heroine? Or was Chekhov right when he wrote that "reality and routine are the most terrible thing that can happen to any of us"?

- When I say that she is the heroine of this play, I mean "the main character". But "a heroine" in life... I don't think so. I don't consider her to be a heroine. A person who brings a drug which could cause the death of other children can hardly be called a heroine, even if she does it for the sake of her son. For some people, Tuesday is a short day; for the doctor who is trying with all his might to save the boys' lives, it is an eternity. And all the while Tanya keeps persuading herself that she is not doing anything bad, and it's the boys who are to blame. She is better off in prison than on the outside – no one manipulates her, so she doesn't need to go to China for drugs.

- What thoughts do you think the play must fill the viewers' mind?

- We do not impose any thoughts or ideas on viewers; we just show them stories. Even though all viewers are sitting in the same room, each of them sees a different performance. This is what the magic of the theatre is about; it is alive and will never die, I am sure about that. No matter what century they live in, people will always have a need for communication, the living power of theatrical magic, be it positive or negative.

society

- Director Yuri Butusov once remarked that when he heard advertising like this: "Our theatre caters for every spectator; we have something for everyone, so come, we can offer you this and that and other things!", it sounded like a supermarket. The Chekhov Centre has a variety of plays for every taste in its repertoire. And it's so easy to cross the thin line between the "good" and the "easy to sell", isn't it?

- I, for one, take pride in the fact that we are like a supermarket, because we are the only professional drama theatre on Sakhalin. If we had theatres of various genres, for example, musical, children's, operetta, and other theatres, we could remain an exclusive boutique. I believe that every theatre-goer on Sakhalin should have a choice of theatre genres - comedy, drama, or immersive performance.

- Sakhalin Energy and the Chekhov Centre are not only partners cooperating in the implementation of various projects, but also friends. Does it mean that it is possible to unite entirely different things – business and theatre?

- Of course, it is. We have implemented many projects jointly with Sakhalin Energy. That's true, it is the first time we have participated in the grant competition, but we have been collaborating for years. And I hope that the theatrical season at the company will continue well into the future.

Interview by Elena Gurshal

Weekend with an ECO Prefix

Sakhalin Energy held an Eco-Weekend at the Gorny Vozdukh the film programme, implemented in cooperation with the

Complex. The campaign was held as part of the I Am a Contribution to the Development of My Island partnership project, which is jointly implemented by Sakhalin Energy and the sports and tourism complex. For the company, it was another opportunity to draw the attention of the community to the topical issue of environmental protection.

The two-day programme of the eco-weekend was designed so that visitors could join in at any time of the day. Moreover, it included events for people of any age. For example, guests could visit the booth of EcoStar Technology, a partner of the project, to leave hazardous waste and learn how to properly dispose of used or expired cell batteries, electrical appliances or medicines. Another partner of the project – the Regional Scientific Library –presented a selection of books on environmental topics and held quizzes and quests aimed to instil respect for nature in visitors. The vendors from the Ecolavka booth offered guests tasty snacks and told them many new things about proper nutrition.

Film showings were the main item on the programme of the eco-weekend. The eco-poster announced six international films that raise topical environmental issues and suggest possible solutions. Film critic Ilya Shamazov, who was the in charge of Festival of Contemporary Scientific Cinema, commented on the project: "Open-air shows are a new experience for me. The whole programme was designed for one hypothetical super viewer who could watch all films in a row. We started with a beautiful film about wildlife and biodiversity titled Earth: One Amazing Day, then moved on to films raising environmental problems. This block of films ended with a powerful statement by Academy Award-winning Louis Psychoias. Although it ends on a positive note, his Racing Extinction leaves a very bitter aftertaste from a vivid account of things that mankind is doing to planet Earth. The last two films were intended as a ray of hope. In Solutions, scientists discuss problems and look for ways out of the crisis. The film laconically titled 2040: Join the Regeneration fills us with optimism: everything is in our hands, so humanity has a chance. The main thing is not to miss it."

The presentation of a new audio guide – A Journey to the Bird World of Sakhalin, another idea suggested by Ilya Shamazov, was an educational point of the eco-programme. The text was written by Sakhalin Energy Lead Specialist, ornithologist Oleg Burkovskiy, and voiced by theatre and film actor Mikhail Sivorin. The half-hour story was read to the accompaniment of the trills of all kinds of birds living in the south of Sakhalin, including nutcrackers, which had nested



on the middle site of the Gorny Vozdukh. The art object created by German Alkidny, a Sakhalin artist, has become not only a permanent decoration of the place, but also a symbol of eco-weekends.

All participants in the project are eager to continue it, so the first eco-weekend will definitely be repeated, which hopefully will become a good tradition.

Evgenia Diamantidi



november 2021

photoreport

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Draw Together

Company announces the winners of Drawing Sakhalin-2 corporate art contest marking company's anniversary. Thanks to all participants of this creative project!

KIDS 3rd place - Sarah Kiran (11 y.o.), 1st place – Marta Shubina (7 y.o.), 2nd place - Georgi Dorodnykh (9 y.o.), Grateful Sakhalin Sakhalin-2 and Bears Sakhalin-2 Pattern ADULTS

place - Alina Fomina, Teamwork



2nd place – Maxim Lubchenko, Working Day



place - Nadezhda Luzan, 3rd Eco-Friendly Plant

SPECIAL AWARDS



The youngest contestant - Polina Shubnaya (5 y.o.) "Live" Platform



Distinctive style - Ekaterina Kashek, Evolution



Use of the state-of-the-art technologies - Igor Barkov Looking into the Future



Bright colours - Olga Navalikhina, Molikpaq



Linking traditions to modernity - Katerina Rubanova, A Song to the Master of the Sea

PEOPLE'S CHOICE AWARD



Vladislav Vatutin (15 y.o.) Golden Platform (painted with crude oil) - KIDS



Igor Barkov, Looking into the Future - ADULTS



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