

IZOLYATOR *120 years*

CENTURY-OLD TRADITIONS - STATE-OF-THE-ART TECHNOLOGIES

#4/2016 (11) OCTOBER — DECEMBER / RESULTS OF 2016

120 YEARS OF SUPPLY TRACK RECORD GLOBALLY



ALEXANDER SLAVINSKY

Chairman of the Board of Directors at Izolyator, Vice President AES RF, Vice President TRAVEK Association, Doctor of Engineering Sciences

In 2016, Izolyator celebrated its 120th Anniversary! Throughout its more than a century-long history, the plant has produced over 620 thousand high-voltage bushings operating in the overwhelming majority of power facilities in Russia and the CIS countries as well as 30 other countries in the world.

The company has walked a long way of un-stopping development, creation at the frontier of scientific and technical progress and engagement in the most ambitious power projects and programs. The uniqueness of the company comes with its history, which is inseparably associated with emergence and development of high-voltage bushing as a self-sufficient direction in electrical equipment building.

All Izolyator's achievements were made possible thanks to the well coordinated effort of our highly qualified team with the all-round support of our partners. We will continue to work hard to prove our clients' trust by timely fulfilling our obligations in high-voltage bushings production and service support of our customers.

We would like to express sincere gratitude to our partners for their cooperation and support in realization of Russian and global power markets development programs.

May 2017 bring us luck, fulfil the most complex tasks and make our cooperation a big success!

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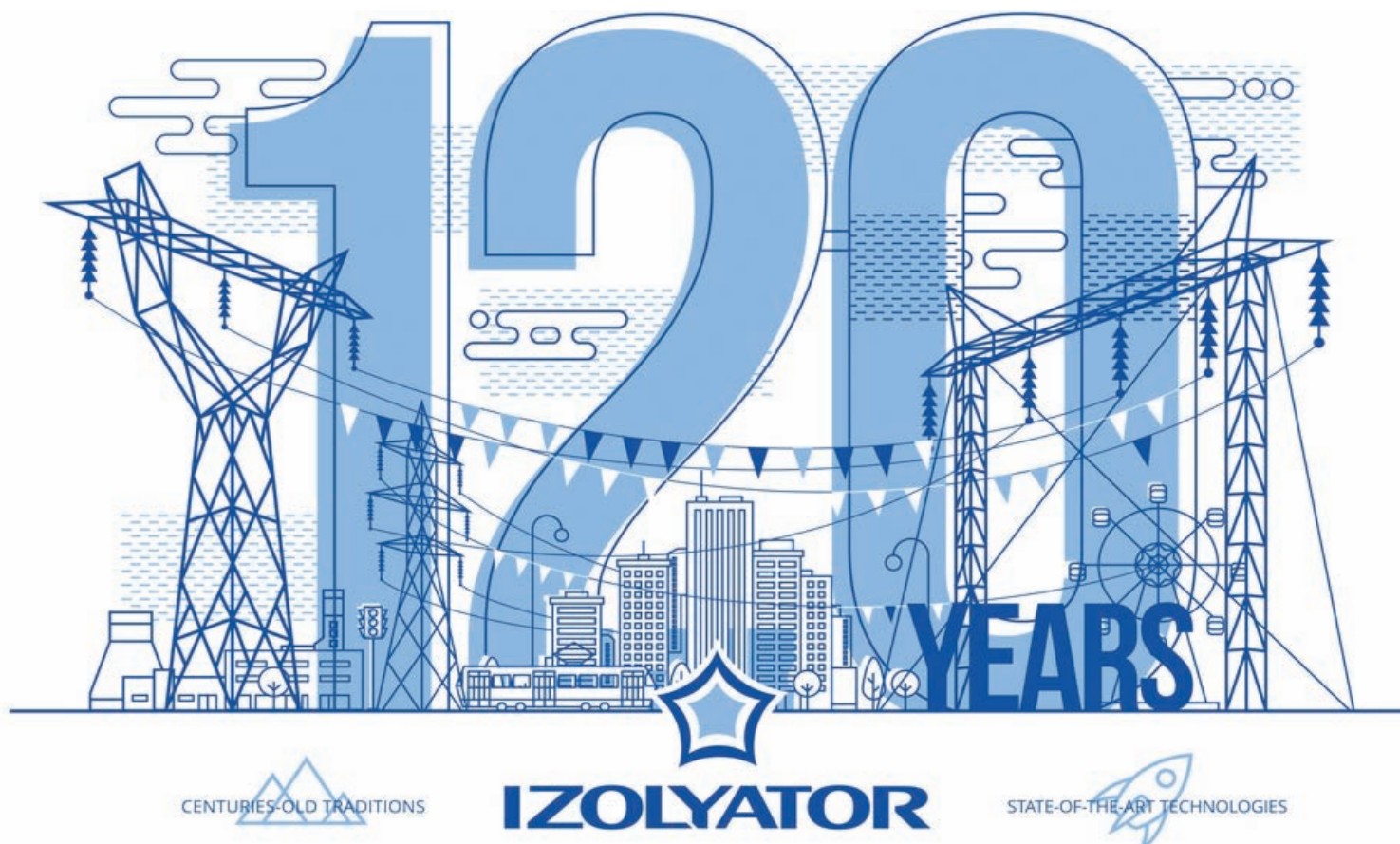
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JUBILEE YEAR OF IZOLYATOR

120 YEARS OF INNOVATION AND HIGH-VOLTAGE BUSHINGS PRODUCTION FOR THE WORLD'S POWER INDUSTRY



Izolyator celebrated its 120th Anniversary. During its century long history, the company has retained reputation of the largest and reliable designer and supplier of high quality innovative electrical products.

PIONEERING

Established in Moscow in 1896, the first domestic power engineering plant played a colossal role in the country's electrification and industrialization, supplying unique equipment to the erected industrial giants, power plants and the Unified energy system of the country, which was being created.

Today, Izolyator is a leading power engineering company in Russia. It actively implements advanced technologies and innovative designs to create more advanced high-voltage bushings.

The production facility of Izolyator allows for producing 12 thousand high-voltage bushings annually. The company expands the product range by introducing completely new designs and modernizing existing products.

In 2002 — 2004, Izolyator created an original RIP-insulation technology in cooperation with the leading Russian scientific centers and applied



The 46th SIGRE Session

it in mass production. Before that time, RIP-insulated bushings were assembled with imported insulation cores. Already now, Izolyator possesses unique equipment allowing for mass producing

RIP bushings up to 1150 kV for alternating current and up to 1000 kV for direct current.

Bushings of Izolyator brand are installed and operate in more than 30 countries of the world

in diverse climate conditions. The company has made more than 550 000 bushing with oil-in-paper insulation and more than 70 000 bushings with RIP insulation, which is equivalent to 90 000 transformers of 80 MVA capacity.

The company's advanced research and development concentrates on the new RIN bushings, cable connectors and optical current transformers.

INPUT IN GLOBAL POWER INDUSTRY DEVELOPMENT

Our company actively cooperates with Russian and international organizations, such as CIGRE, IES, TRAVEK and is represented in the Academy of Electrical Sciences of the Russian Federation. Besides, partnerships with many largest global power equipment OEMs are established.

Izolyator's participation in the 46th Session of the Council on large electric systems — CIGRE, held in France in August 2016, became one of the key events in the outgoing year. The biennial CIGRE session is a central event in this organization's activity and the world's largest event in power industry.

Izolyator received a status of the leading science and engineering partner to the Russian National Committee of the International Council on Large Electric Systems CIGRE and is actively engaged in creation of SC D1 RNC CIGRE Materials and Emerging Test Techniques, which was set up on the basis of Izolyator plant. The opportunity to make an input in the world's power industry development is an important priority for our company. Already now, our advanced designs and HV bushings production process are recognized by power men from all over the world. We are confident that our cooperation with CIGRE will allow taking the company work to a whole new level in the interests of all market players and power industry development in the country.

OPEN TO DIALOG

The company continues fruitful cooperation with leading European and Asian utility and industrial power engineering companies. We became the first supplier of HV RIP bushings to the state Belgian power grid Elia and the state Indian power major PowerGrid. Our products have also gained recognition on the market of Vietnam: Izolyator bushings have been operated here for over 30 years; so today we continue to supply the new generation of high-voltage bushings to the Vietnamese market.



The open seismic tests of Izolyator bushings at the independent center CESI in Italy



Visit of the representatives of Vietnamese EVN NPT to Izolyator plant



Participants in Russia-Vietnam meeting at FGC UES

As part of international cooperation promotion and new partnerships fostering, Izolyator organized a quadripartite meeting with representatives of the state Belgian power grid Elia, CG Power Systems Begium NV transformer plant and the Federal Grid Company of the Unified Energy System of Russia in April 2016. We also came out with an initiative of a trilateral dialog between the Federal Grid Company of the Unified Energy System of Russia and the state power grid company of Vietnam EVN NPT. The official visit of EVN NPT representatives led by Dang Phan Tuong, Chairman of the Board of Directors took place in October 2016.

The open seismic tests of our products, organized in the Anniversary year in Italy at the premises of the International independent center CESI, once again demonstrated the high quality and reliability of Izolyator high-voltage bushings to the Asian and European partners.

One of our key priorities is development of partnerships with world's leading power grids and electrical equipment OEMs!

EXPERIENCE MEANS DEVELOPMENT

The jubilee year was marked with a number of events for our partners resulting in strategic cooperation agreements signing. During the V jubilee Rugrids-Electro 2016 International Forum, Izolyator organized an event «Izolyator plant: the 120 years of innovation and high-voltage bushings production for the power industry» with participation of Rosseti PJSC executives, utilities and representatives of power equipment OEMs based in Russia and the CIS.

During the event, we signed memorandum on cooperation with Rosseti PJSC. The signing ceremony was followed by a visit to Izolyator plant to familiarize the forum guests with innovative designs and key production stages of high-voltage bushings including the unique RIP technology.

Our specialists also presented Izolyator inno-

vative technologies at the Electric Networks 2016 International Exhibition.

The exhibition was held with the traditional support from the Ministry of Energy of the Russian Federation, FGC UES PJSC, The Government of Moscow and Technical Inspection UES CJSC. This year, it was dedicated to the 50th Anniversary of Power Engineer's Day.

The history of our company proudly counts

more than a hundred labor dynasties with many of those people working for fifteen, twenty, forty years at the plant.

Our engineers, designers, workers and test engineers are world level professionals. They are a true value and basis for Izolyator's further development.

Izolyator has gained a unique and successful experience in development, manufacture and op-

eration of high-voltage bushings of various application and voltages in the 120 years of its activity. We are prepared to share it openly cooperating with our partners for the sake of common success and power industry development on the planet.

Dr. Alexander Slavinsky,
Chairman of the Board of Directors
Izolyator



Signing ceremony of Memorandum on Cooperation between Rosseti PJSC and Izolyator

RELIABILITY AS A KEY TO COMMON GOALS ACHIEVEMENT



Reaching goals and always aiming higher — and remembering about its mission — is an unspoken rule for all successful companies. Ivan Panfilov, Commercial Director at Izolyator is speaking about the achievements of the passed year and the new prospects.

The world history repeatedly demonstrated that the major new challenges can be met by uniting efforts. Power industry is one of the most important and overwhelming sectors and it requires exactly the approach of uniting best experience and the most advanced technologies in pursuit of the main objective — reliable operation of power equipment and uninterrupted energy supply to consumers.

Izolyator won trust from partners all over the world by effectively retaining the leading position in production of high-voltage bushings including bushings with solid RIP insulation. At the same time, we constantly work on improving our partnerships with utilities, generation and transformer plants in Europe and Asia. We appreciate all our partners for their trust and fruitful cooperation.

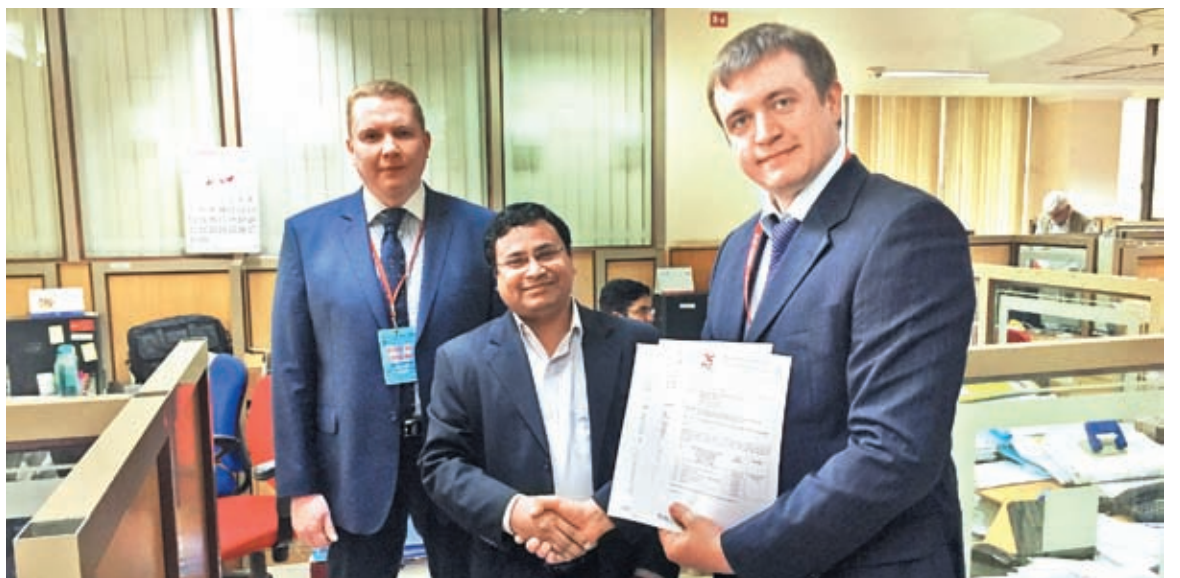
BRINGING TOGETHER INTERESTS OF THE STATE POWER GRIDS

We always emphasize that we are open to dialog with our partners. It is important that

Izolyator
delivers
its products
to more than
30 countries



Meeting with executives of the Indian State Utility PowerGrid



Handing papers with positive tests results of Izolyator bushings inspected by PowerGrid

the dialog comprises meetings where we share power equipment operation experience between FGC UES PJSC and world's power grids and power equipment OEMs, which Izolyator is willing to organize. We have witnessed that this format truly helps deepen Russia — Europe — Asia business ties in power sector. Thus, in April 2016, a meeting between Belgium's state power grid Elia and CG Power Systems Belgium NV transformer plant was organized. Belgium via Elia became the first country in Europe

to start transition from high-voltage OIP bushings to RIP technology. Having joined the program, Izolyator became the first supplier of high-voltage bushings with solid RIP insulation to Belgium. In the result of the visit to Moscow, Elia representatives and FGC UES management expressed a shared opinion on the need to consider Izolyator as a regular supplier of HV RIP bushings both to the power system of Belgium and Europe in general.

INPUT IN DEVELOPMENT OF NATIONAL POWER NETWORKS

The unique mass application experience with HV RIP bushings attracts more attention not only in Europe, but in Asia where obsolete OIP designs are still widely used. Our technologies prove that the solid insulation is more reliable and secure in operation, so we believe it necessary to tell the widest audience of our partners all around the world about the advantages of application and technical service of HV RIP bushings.



Russia - Belgium meeting at FGC UES

The markets of India and Vietnam present a special interest, so Izolyator has been very active there. In 2016 Izolyator plant became the first in the world supplier of RIP bushings to the state Indian company Power Grid Corporation of India Limited. It is a notable achievement as there are few suppliers in the world capable to deliver 800 kV bushings with a huge demand for those in the country. The fact that Izolyator challenged the task and offered technical support from equipment installation to technical staff training of the clients speaks for our understanding of the importance of this mission.

We continued to develop our partnerships with partners from Vietnam. In October 2016, Izolyator organized a visit to Russia for a group of EVN NPT (Vietnam state power grid) representatives led by Dan Phan Tuong, Chairman of the Board of Directors. The agenda of the visit included a meeting with FGC UES management who confirmed the high quality and innovative value of Izolyator products based on the many years of cooperation and recommended Izolyator as a reliable strategic partner for development of the national energy system of Vietnam and other countries. Izolyator team members did a large volume of work preparing a successful visit for EVN NPT colleagues. This line of behaviour only speaks for our focus on strengthening ties with leading energy companies both in Russia and worldwide.

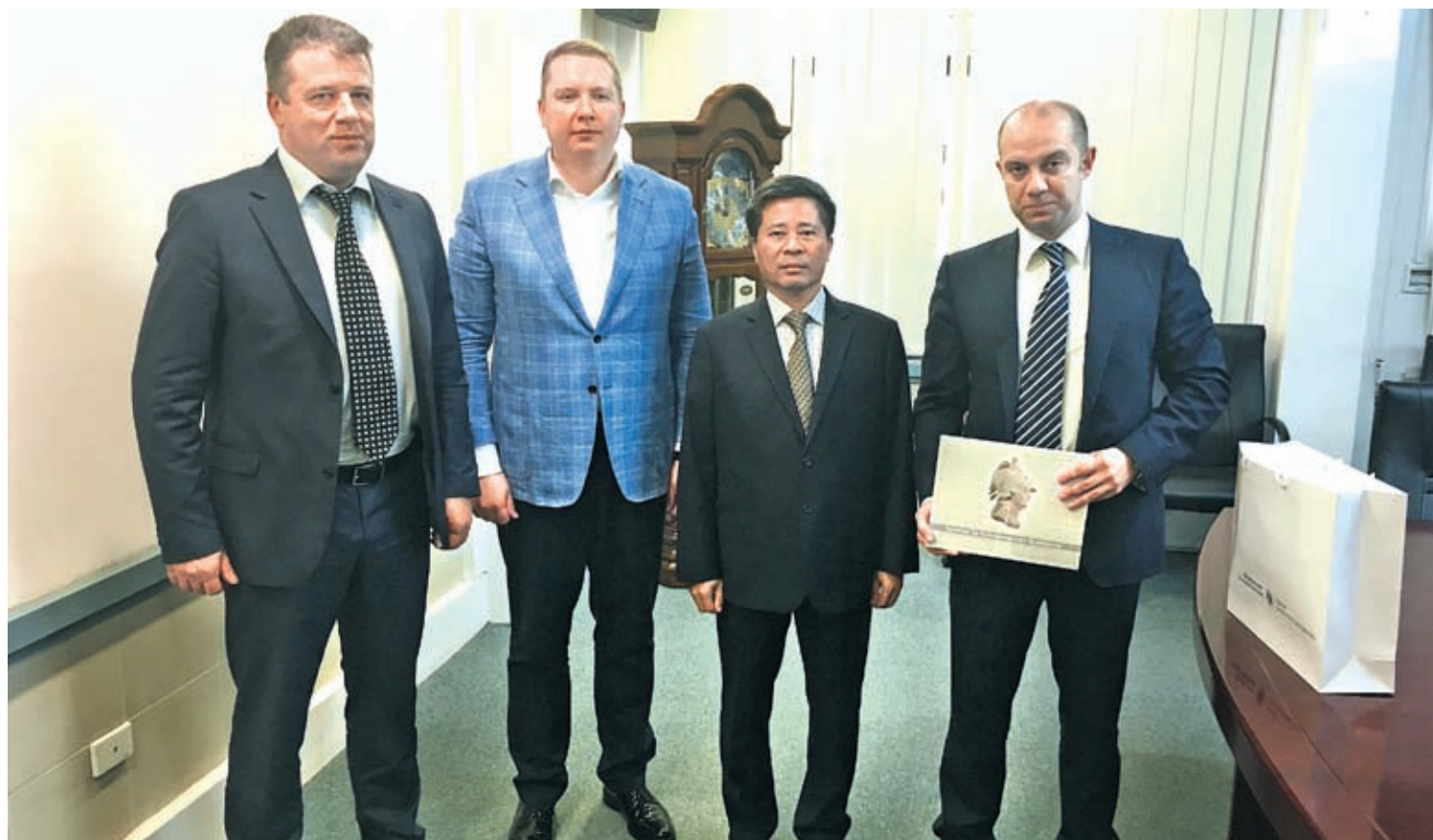
Izolyator granted Vatco a partner status on the power market of Vietnam, which is yet another important step on this important market. In the frame of the partnership, Vatco will provide fresh information about the condition, trends and data on the market of power equipment in Vietnam with focus on high-voltage bushings.

In 2017 we plan to develop our relations with Asian and European partners further.

EVIDENCE OF WORLDCLASS SUCCESS

One can say a lot about achievements and plans, but it is our tradition to prove what we say by practice. Representatives of the world's leading power grid companies and OEMs received

120 years
of experience
speak for importance
of keeping
traditions
and going forward at all
times



Meeting of FGC UES and Izolyator plant with EVN NPT management in Vietnam



Participants in Izolyator bushings tests at CESI

an opportunity to witness the highest quality of innovative designs and professionalism of our specialists at the international conference with a

series of seismic tests of HV RIP bushings, organized by us in Italy.

The tests performed during five days in one

of the worldwide recognized test centers — CESI in Italy — were called to demonstrate advantages and capabilities of our newest technologies. Representatives of the leading state power grid operators from India and Italy, colleagues from leading OEMs from France, Germany and Italy came to be the experts at the tests. We appreciate the genuine interest shown to Izolyator's achievements and hope that the dialog about power industry development will not only continue but will form a solid basis for cooperation.

Our leading position in design, manufacture and implementation of modern technologies in power industry has charged us a big responsibility. The 120 years of our company experience proved the importance of unstoping movement while keeping traditions: to strengthen partnerships, to expand presence, to improve professionalism of the plant's team. Today, one's confidence in reliability in is particularly valued: Izolyator's close-knit team makes utmost efforts to reach objectives, so everyone feels responsible for his input. We are confident that our partners feel secure and reliable when dealing with us just as those whom we all are here for — our power consumers.

We would like to thank all our partners for an effective cooperation that we enjoyed and express our hope for successful cooperation in 2017!



The tests and international conference in Italy proved a success!



NATALIA MAZOVA

*International Business
Development Manager*

Izolyator has chosen a course for strong business ties with partners in Europe and Asia. In 2016 we followed it with success and strengthened positions on the power markets already familiar with our products.

Thus, we continued our dialog with the key players in generation and HV equipment production in Vietnam: EVN, TPP Falai, HoaBinh HPC and EEMC, represented by Gong Anh Electrical Equipment Corporation transformer plant. Notably, our promotional activities attracted a local partner: Izolyator granted an official partner status to Vatco to represent its interests on the power products market of Vietnam.

By improving relations with our clients, we are pleased to think that we make an input in the general rapprochement of the two countries. With Izolyator's engagement, an official visit to Russia of a group of Vietnam's state power grid company EVN NPT representatives, led by Dang Phan Tuong, Chairman of the Board of Directors, took place.

Successful cooperation with European partners was made possible thanks to a large work on HV RIP bushings promotion that has been done by our company in the past years. The amount of attention that we were able to attract with the international conference and open tests of high-voltage RIP bushings at CESI in Italy is another result of our work, which was duly appreciated by our partners.

The talks with the partners from Belgium's state power grid company Elia and CG Power Systems Belgium NV were a significant achievement. Elia became the first in Europe to start a transition from high-voltage oil-in-paper bushings to bushings with solid RIP insulation making Izolyator the first supplier of RIP bushings to Belgium. We hope that 2017 will be full of positive events both for us and our partners and marked with achievements on the way to the priority objective — secure power supply to every consumer.



VIETNAM - RUSSIA: A NEW ROUND OF STRATEGIC PARTNERSHIP

Visit of EVN NPT Representatives



Andrey Murov and Dang Phan Tuong at the meeting at FGC UES



EVN National Power Transmission Corporation (EVN NPT) was founded in 2008 with the reorganization of four companies' activity: Power Transmission Company No. 1, 2, 3, 4 and three Project management offices: Northern, Central and Southern. The goals of the company are: to ensure safe, uninterrupted and sustainable transmission of electric power for economic, political, social, national defense activities and national security; to develop EVN capital, invested in EVN NPT; to rationally use available resources with the purpose of profits maximization and acquiring funds for reinvestment in EVN NPT. The main activities are: to effectively realize electric power transmission, to invest in grid development, to operate, maintain and service the network, to render consulting services in regard to construction and investment, monitoring of project realization, training and developing employees for management, operation and maintenance of the power system.

On 10–12 October 2016, a group of representatives of the state power grid company of Vietnam EVNNPT, led by Mr. Dang Phan Tuong, Chairman of the Board of Directors, visited Russia.

The agenda included a meeting with FGC UES JSC top management, a visit to one of the Federal Grid Company's facilities and a meeting with Izolyator management.

In accordance with the agenda, the representatives of EVN/NPT together with the delegation of Izolyator, led by Alexander Slavinsky arrived at the FGC UES Headquarter. Andrey Murov, Chairman of the Board of Directors at FGC UES JSC received the visitors.

The companies' representatives discussed bilateral cooperation and issues of HV grids development. For instance, the sides shared experience in construction and operation of 220–500 kV bulk power networks, application of HV equipment of domestic production in power facilities.

In the course of the meeting, the sides also discussed support measures for manufacturers of electrical engineering products and a possibility for FGC UES to provide an evaluation of the power grid of Vietnam. The Federal Grid Company expressed readiness to provide support both by sharing information and experience in HV networks operation.

FGC UES management confirmed the high quality of Izolyator products basing on the many years of cooperation and recommended Izolyator as a reliable strategic partner for development of the national power networks in Vietnam and other countries.

The visit of EVNNPT's representatives to Russia came as result of large work on Izolyator side: the company is actively engaged in integration processes in the global power industry adhering to a consistent policy of partnerships fostering between leading power companies of Russia and other countries.



Tripartite meeting at FGC UES



Visit to 750 kV Gribovo substation of FGC UES in the Moscow Region

necessary explanations and could witness a first-hand example of the technical perfection, reliability and high operational efficiency of Izolyator HV bushings that are currently operating on the most critical facilities of the federal power grid.

In the conclusion, EVN/NTP's representatives visited Izolyator plant to have a meeting with the wide management representation of the receiving side.

In the conclusion, EVN/NTP's representatives visited Izolyator plant to have a meeting with the wide management representation of the receiving side.

At the presentations made by Izolyator's functional managers, the guests familiarized themselves with the structure and tendencies on the Russian power market, Izolyator's international promotion experience and cooperation results with Vietnam's grid and power equipment manufacturing companies, innovative solutions in design and production of high-voltage insulating equipment.

At the meeting, the partners summarized cooperation results, set the nearest targets and discussed further cooperation plans covering the entire specter of issues connected with a consistent equipping of Vietnam's power facilities with modern reliable insulating equipment.

The hosts made a tour of the Izolyator plant to introduce the guests to the advanced technologies of production and testing of high-voltage



Meeting at Izolyator plant



EVN NPT representatives are being familiarized with Izolyator bushings assembly process

Thus, the company set up business contacts and cooperation with the largest state grids Power Grid Corporation of India Limited in India and Elia in Belgium earlier.

The next item in agenda was a visit to one of the largest in the world new generation substations of FGC UES JSC — 750 kV Gribovo in the Moscow Region, which has 4552 MVA installed capacity.

The guests were received by the substation's managers and operators.

While taking a look on the substation's equipment, the EVNNPT's representatives received all

RIP bushings. The EVNNPT representatives shared a high opinion of the plant's equipment capabilities and production potential.

In the concluding remarks, the sides thanked one another and expressed a strongest intention to develop cooperation. The partners exchanged presents and corporate souvenirs.

The outcomes of the EVNNPT's representatives' official visit to Russia:

- EVNNPT and FGC UES JSC shared experience and discussed further bilateral cooperation and HV grids development;
- based on the long-term cooperation, FGC UES confirmed the high quality and innovative value of Izolyator products recommending it as a reliable and strategic partner for development of the national power grid of Vietnam and other countries;
- the visit to Russia of EVNNPT representatives comes as result of a large organizational, technical and commercial work on Izolyator side, aimed at integration processes in the global power industry;
- during EVNNPT representatives' visit, the partners set targets and plans of long term cooperation development;
- EVNNPT representatives expressed a high opinion on the equipment capabilities and production potential of Izolyator plant;
- all the participants in the meetings expressed an intention to continue and further develop dialog and cooperation.

We wish to thank all the attendees for their attention and deep interest, the high level of events organization, professional and productive dialog as well as the intention to keep walking the way of cooperation development between the power industries of the two countries, Russia and Vietnam!



Alexander Slavinsky and Dang Phan Tuong at Izolyator meeting

BUSINESS TRIP OF FGC UES PJSC AND IZOLYATOR DELEGATION TO HANOI

The business trip of FGC UES PJSC and Izolyator to Hanoi, Vietnam took place in December 2016. During the visit, a number of meetings and talks with representatives of Government offices, power companies, the Trade Mission of the Russian Federation in Vietnam, the Ministry of Industry and Trade of Vietnam, the state power corporation EVN, the state power transmission company EVN NPT, Dong Anh Electrical Equipment Corporation (EEMC), the daughter company of EVN on design and construction of power facilities PECC1 and supplier of power equipment VATCO were held.

The combined delegation included:

From FGC UES PJSC:

- Kirill Lunin, Head of Department, Technology Development Power Equipment;

From NTC FGC UES JSC:

- Timofey Ryabin, Deputy General Director;

From Izolyator:

- Ivan Panfilov, Commercial Director.



Public limited company Federal Grid Company of Unified Energy System (FGC UES PJSC) was founded in the result of power industry reform with the purpose of the national power grid management for its preservation and development. The unified energy system of Russia is recognized as a national property and a pillar of the state stability and security. The key structure of it is the unified national power network, which includes a system of main power transmission lines uniting the regions of the country and representing an element in the state integrity.



R & D Center of FGC UES JSC (NTC FGC UES JSC) carries out scientific research in power industry related fields rendering engineering services, promoting innovations, testing and certifying equipment and designs power networks.

Ministry of Industry and Trade of Vietnam

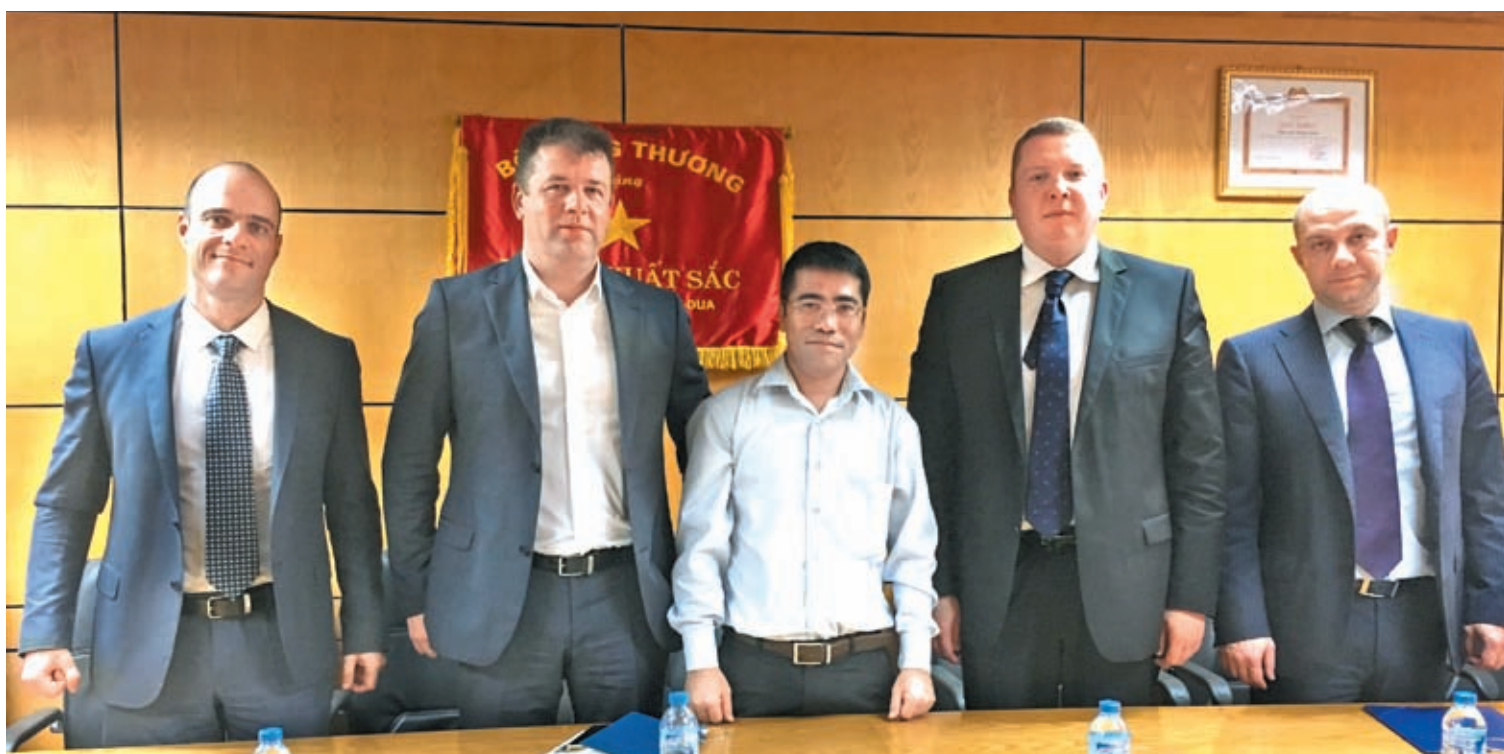
The delegates received an opportunity to meet with Mr. Tang The Hun, Deputy Director, Planning Department at the Ministry of Industry and Trade on 13 December.

Alexander Kardo-Sysoev, Consultant with the Trade Mission of the Russian Federation in Vietnam also took part at the meeting.

The Planning Dpt is charged with the tasks of industry and trade government control, fulfillment of strategies, plans, investment programs and projects that are targeted at the industry development.

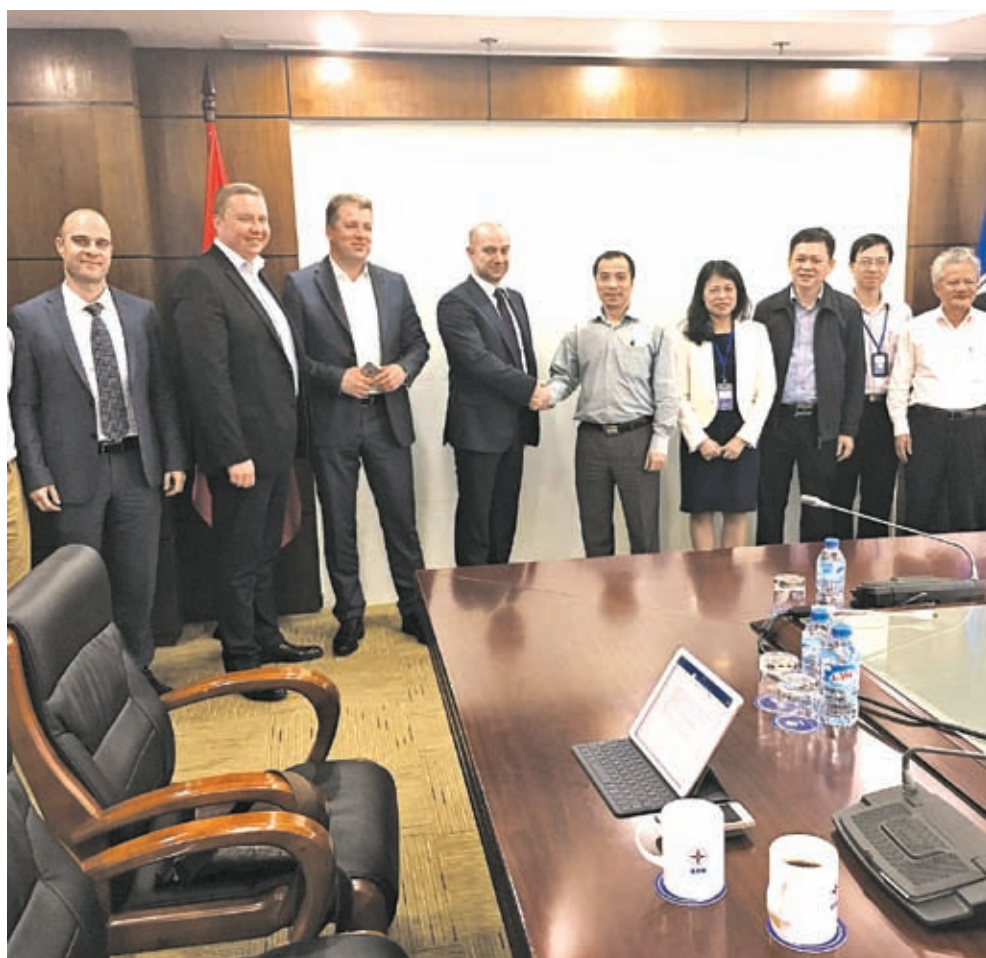
The key topics of the meeting:

- suggestion of the Russian companies to bid on the tender for designing strategy of Vietnam's power industry development up to 2030;
- interest in experience sharing between the countries, implementation of innovative technologies and invitation of Russian companies to the market of Vietnam;
- identification of areas of cooperation between the Russian and the Vietnamese sides.



Meeting at the Ministry of Industry and Trade of Vietnam, L-R: Alexander Kardo-Sysoev, Timofey Ryabin, Tang The Hun, Ivan Panfilov and Kirill Lunin

State Energy Company of Vietnam EVN



Meeting with top management representatives at EVN



Participants of the business visit to EVN



The State Power Company Vietnam Electricity (EVN) EVN is the largest energy company in Vietnam that manages power plants with total installed capacity 9000 MW and 20 thnd km of power lines entering top 5 biggest companies of the country.

EVN management was represented by Mr. Ngo Son Hai, Deputy General Director.

The key topics of discussion were:

- current objectives for EVNNPT set by EVN management;
- targets and plans of power transmission and distribution system development in the 10 year prospect;

- key issues in operation, maintenance of the entire range of power equipment installed in the power transmission and distribution networks;
- experience of innovative equipment application in the power transmission and distribution networks and Vietnam's demands in such equipment application to raise efficiency and cost saving;

- interest of Vietnam in application of Russian power equipment, materials and systems in the power facilities of EVN and EVN NPT;
- interest of Vietnam in Russian companies' bids in the Power industry of Vietnam strategy development tender.

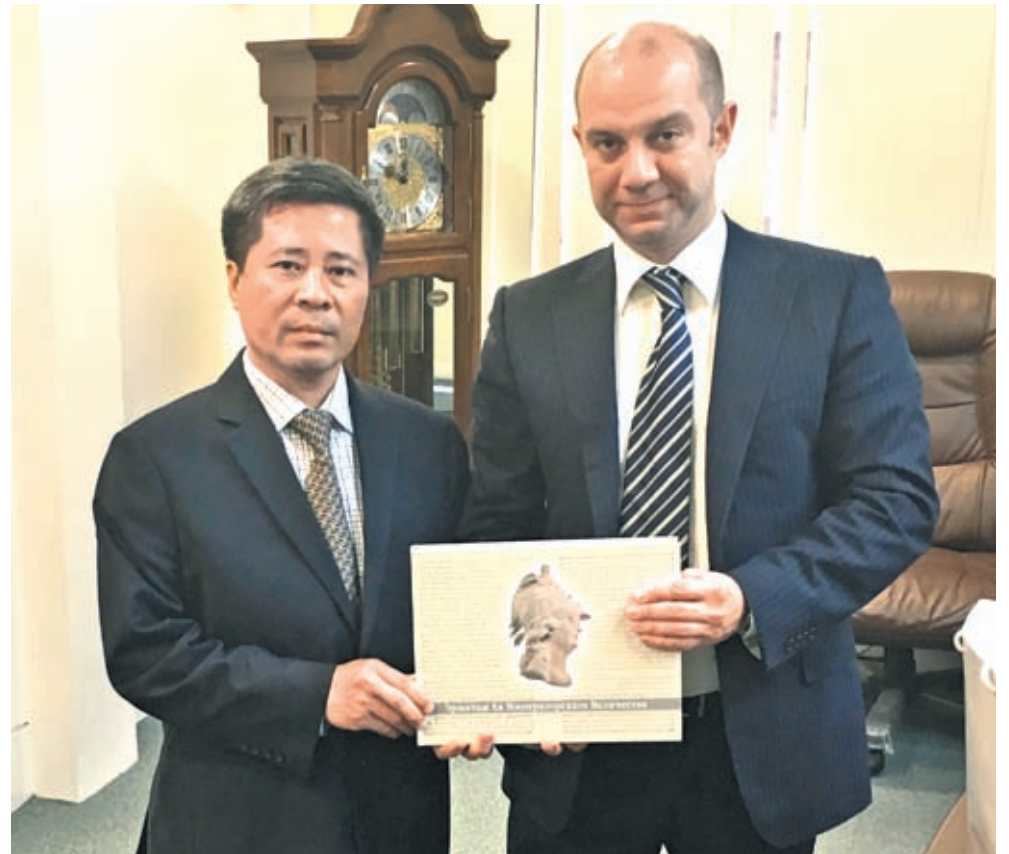
State Power Grid Company of Vietnam EVN NPT



EVN National Power Transmission Corporation (EVN NPT), part of Vietnam Electricity (EVN), was founded in 2008 with the reorganization of four companies' activity: Power Transmission Company No. 1, 2, 3, 4 and three Project management offices: Northern, Central and Southern. EVN NPT owns more than 100 substations and more than 20 thousand km up to 500 kV power lines in Vietnam.



The talks went in a business and friendly atmosphere



Dang Phan Tuong and Kirill Lunin

On EVN NPT side, the visitors were received by Dr. Dang Phan Tuong, Chairman of the Board of Directors and his colleagues.

The key topics for discussion were:

- Russian experience in testing and certification of equipment and approaches to working with HV equipment manufacturing plants;
- problems met during equipment operation and EVN NPT network management;

- Breakdowns and operation modes at emergency situation, measures taken for elimination and decrease of risks.

In the result of talks, the sides reached an agreement on involvement in other large investment projects of EVN NPT connected with deliveries of transformer and switching equipment, communication systems and protection and emergency automation.



EVN NPT meeting attendees, the company HQ building in the background



Participants in the business meeting at EVN NPT headquarter



Meeting at EVN NPT, on the left: representatives of the receiving side



Meeting at EVN NPT, on the right: representatives of the Russian side



PHAM PHUC NGUYEN

Director at Vatco

Cooperation of Vietnam and Russia counts many decades of history. The fact that the OIP bushings made by Izolyator in the Soviet period are smoothly operating in the power facilities of Vietnam today is impressive. We used the opportunity to see with our own eyes how our partners work in their country and share experience. For these reasons the trip to Russia was extremely interesting and useful for Vietnam's delegation offering large prospects for further cooperation.

In 2016 Vatco accepted Izolyator's offer to represent the plant's interests on the power engineering equipment market of Vietnam. In the frame of our partnership agreement, Vatco will provide fresh information on the condition, trend and data of the power equipment market of Vietnam and high-voltage bushings in particular.

The informative meetings with Izolyator representatives allowed us to form understanding of how Russia will realize the strategy of doing business and sales promotion for Russian OEMs in Vietnam. We are prepared to set up direct business contacts, form productive business relations with power grid companies and power equipment OEMs in Vietnam in the frame of our partnership.

It is an obvious fact today that modern and reliable insulating equipment is needed in the power facilities of Vietnam. We view Izolyator as a reliable and strategic partner and wish us all many years of efficient cooperation.

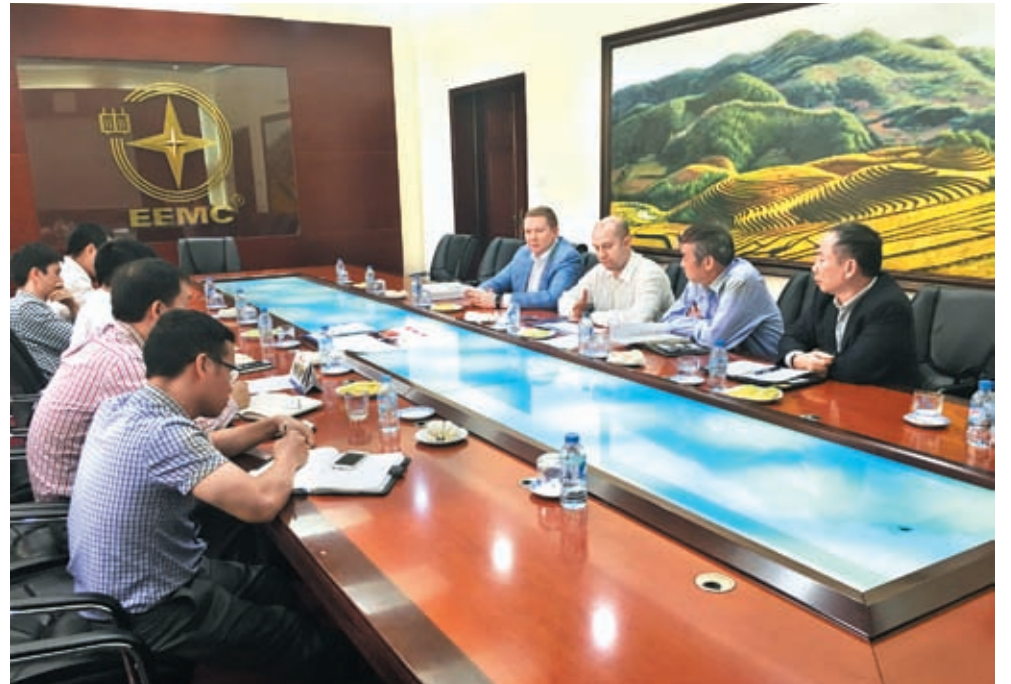
Power Equipment Corporation Dong Anh Electrical Equipment Corporation (EEMC)



Dong Anh Electrical Equipment Corporation (EEMC) has years of tradition and experience of design, manufacture, supply and maintenance of electrical equipment in Vietnam and Asia-Pacific. Presently it is a part of EVN.

The sides discussed the following issues:

- presentation of the Russian companies about the system of power transmission and distribution in Russia;
- areas of strategic development for power systems in Russia;
- system of work with manufacturers of power equipment and strategic goals up to 2030;
- RIP bushings application record in power transmission and distribution systems in Russia;
- the plant presentation and its product range;
- the sides agreed to develop cooperation.



Meeting at EEMC, on the right: representatives of the Russian side



Meeting at EEMC, on the left: representatives of the receiving side



Visit to EEMC plant

Subsidiary of EVN on Design and Construction of Power Facilities (PECC1)



Meeting at PECC1, on the left: representatives of the Russian side



Power Engineering Consulting Joint Stock Company 1 (PECC1) is a leading consultancy in Vietnam providing engineering advisory services and counsel in construction, testing, research as well as many important large scale projects in Vietnam, Laos and the Kingdom of Cambodia.



Meeting at PECC1, on the right: representatives of the receiving side

In the result of the talks the sides agreed on joint bidding in a tender and contract fulfilment in case of winning.

In the result of talks with representatives of Vietnam's companies Vietnam Electricity (EVN), EVN National Power Transmission Corporation (EVN NPT), VATCO, Dong Anh Electrical Equipment Corporation JSC (EEMC) as well as representatives of the Ministry of Industry and Trade of Vietnam, we can confidently say about interest from the Vietnamese partners' side in setting up beneficial partnerships with Russian companies in regard to delivery of power engineering equipment, technologies and services.

In general, the colleagues from Vietnam are of a high opinion on the quality and operational feature of the Russian-made (Soviet) equipment operated in the power facilities for 40-50 years.

DEVELOPMENT OF RUSSIA - VIETNAM COOPERATION IN 2016

New Partner on the Vietnam Market



Industrial Equipment and Material Joint-Stock Company (Vatco) is the leading supplier of materials, equipment, spare parts for Vietnam hydro and thermal power plants built with help from former USSR, as well as strong and reliable provider of power plant equipments originated from developed countries. At the same time, Vatco has been also expanding its development activities into other industrial fields such as environment, automation and training.

Resulting from July 2016 talks decision to sign Partner Agreement with Vatco for Izolyator representation on the market of Vietnam means that Vatco will provide information on current condition, trends and parameters of the power equipment market in Vietnam and high-voltage bushings market.

On the receiving side, from Industrial Equipment and Material Joint-Stock Company (Vatco), Tran Van Son, Chairman of the Management Board;

Pham Phuc Nguyen, Director and Nguyen Viet Hung, Deputy Manager of Technical Depart-



Meeting participants in Vatco

ment took part in the talks. From Izolyator side, Ivan Panfilov, Commercial Director and Dmitry Mashinistov, Head of SVN Service took part in the Agreement conclusion.

With the approval of Izolyator, Vatco will be prepared to set up direct business contacts with consumers of high-voltage bushings — power and industrial enterprises of Vietnam — and promote long term cooperation with them.

In turn, Izolyator assumes obligations to deliver all required information about RIP bushings design and technical features and 15 year operational record in various geographic and climate conditions. The company will also organize Vatco representatives' training at Izolyator plant and promote business contacts set up, direct exchanges and cooperation with leading power companies of Russia and Vietnam.

We wish to thank Industrial Equipment and Material Joint-Stock Company for the invitation and a strong interest in active cooperation for the good of the power industry of Vietnam and its future development!

Izolyator Bushings Have Operated in Vietnam for More Than 30 Years



Participants of the meeting at Hoa Binh HPC. In the background: transformer with Izolyator bushings, 30 years in operation



220 kV RIP bushings delivered by Izolyator to Hoa Binh in 2016



Hoa Binh hydropower plant - Hoa Binh Hydropower Company (Hoa Binh HPC) is the largest in Vietnam and South East Asia on par with Son La HPP. The power plant is located on the river Da in Hoa Binh province.

During the visit to Hoa Binh HPC, where Izolyator OIP bushings have operated for well over a quarter century, the partners discussed possibility of technical condition evaluation of every bush-

ing in operation by running analysis of its electric and physical-chemical parameters provided by Hoa Binh HPC. In the result of the evaluation, Izolyator submitted an official report with recom-

mendations on their operation and replacement with RIP bushings.

Meeting at Vietnam Oil and Gas Group



Vietnam Oil and Gas Group is a state-owned company with international transaction name Petrovietnam (PVN). Petrovietnam is a strong economic group in Vietnam known worldwide. Petrovietnam has the main functions and tasks of investing in subsidiaries and affiliates; implementing petroleum activities and signing contracts with the organizations, individuals operating in oil extraction; manage and supervise the petroleum/hydrocarbon exploration and production activities following contracts with petroleum contractors and subsidiaries, organizations and other individuals; Implement other activities the Government entrusts directly to PVN.



PVN meeting participants

Izolyator made a corporate presentation and showcased advantages of RIP technology with positive operation references from the largest power companies.

On PVN side the visitors were received by Tran Toan Thang, Deputy General Manager / Power Division and Bui Minh Tuan, Manager of Thermal Power Project Department / Power Division.

The sides discussed possible cooperation directions, for instance, forms of Izolyator involvement in such PVN projects as thermal power plant Long Phu — 1 erection.

PVN representatives provided requirements to purchased power equipment that Izolyator innovative products fully correspond to.

We would like to thank Petrovietnam for their invitation and a productive dialogue!

**YAROSLAV SEDOV**

*Business Development Manager
at Izolyator*

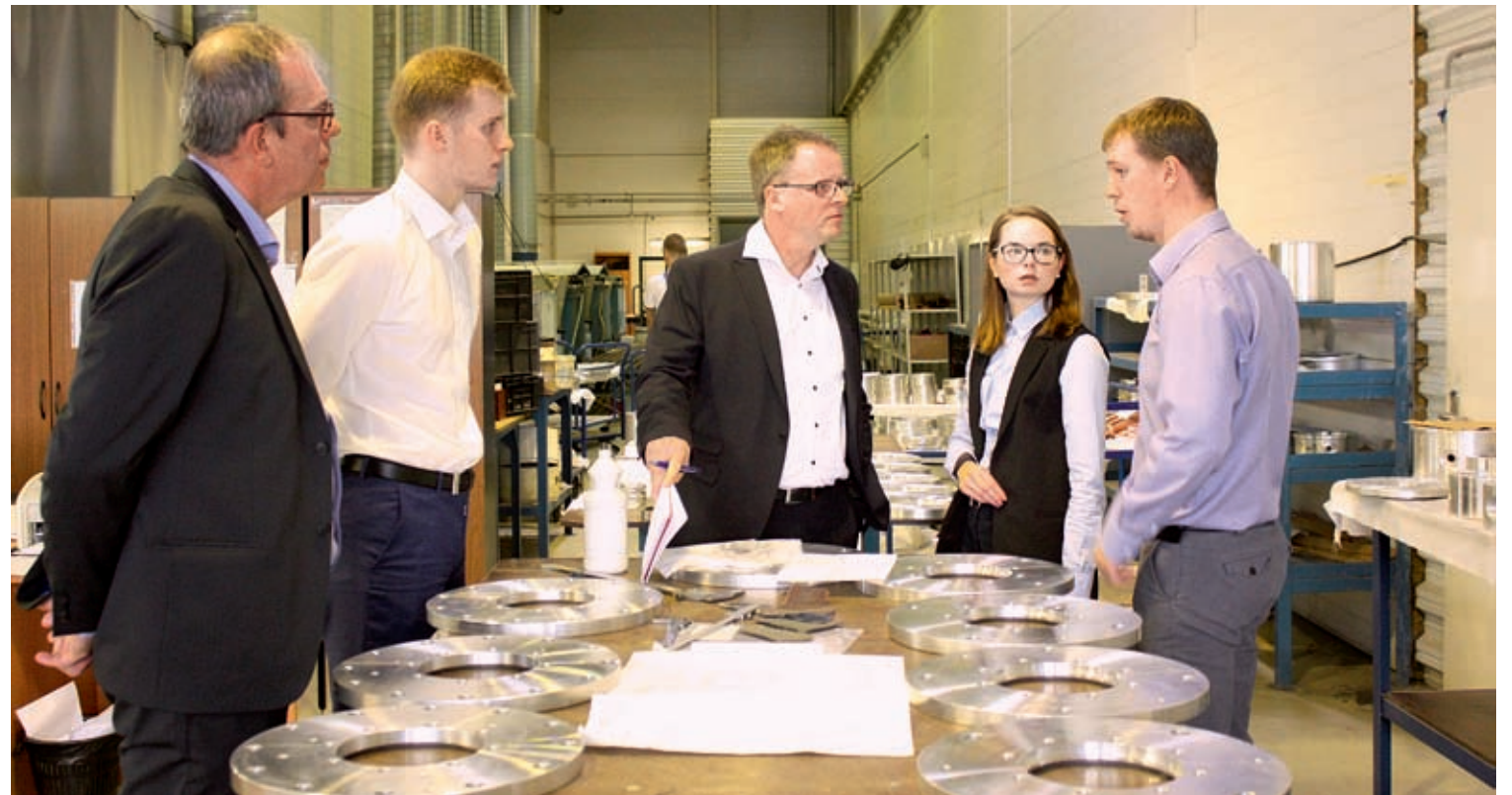
The large work on RIP bushings promotion in the past years allowed us to organize an international exhibition in June 2016 aimed at orienting our European partners who still use OIP bushings to RIP technology. We did not only discuss global trends in power industry and told about our company innovations and achievement, but also demonstrated capabilities of our equipment over a series of seismic tests.

We emphasize that our experience in operation of HV RIP bushings of various applications allows us to find optimal solutions for our partners, so the partners who attended the event had an opportunity to witness it. We were especially pleased with our partners taking roles of experts at the tests. We received a lot of feedback reflecting genuine interest to what we do.

We aim at such delivery when fulfilling projects that they could be a basis for a long term interaction. It is pleasant to see already established relations getting impetus for a new round of development. We are proud that Izolyator became the first supplier of HV RIP bushings to Belgium. At the same time, we do not stop and keep going, e.g. in the framework of our cooperation with the Belgian state power grid company Elia and CG Power Systems Belgium NV during the year we delivered under several important for our company orders. We think it is a great result.

On behalf of Izolyator, I would like to thank our partners for the fruitful cooperation and wish them to stay open to everything new, share information and continue our partnership.

COOPERATION WITH LEADING EUROPEAN COMPANIES



Production qualification of Izolyator plant

Eventful Visit of Belgian Delegation to Moscow



The audit scope included the entire production process of high-voltage bushings



Inspection of Izolyator high-voltage bushings

On 19 April 2016 in Moscow, there was a meeting of the representatives of the state Belgian power grid Elia and the Federal Grid Company of Russia with participation of CG Power Systems Belgium NV and Izolyator.



CG Power Systems Belgium NV (formerly Pauwels Trafo Belgium NV) with manufacturing units in Belgium, Ireland, USA, Canada and Indonesia is a developer of innovative, high-quality, reliable products and turnkey solutions for a wide range of power applications.



Elia is Belgium's transmission system operator and a key player on European energy market. Elia operates a system of 30 kV to 380 kV power lines with over 8000 km outstretch including underground cable networks throughout Belgium.

The meeting was organized with an active engagement of Izolyator in the frame of international cooperation and new partnerships promotion.

The visit of the representatives of the Belgian companies began with a trip to Izolyator manufacturing facility where the guests saw the plant, audited the production system, inspected high-voltage tests of finished equipment and discussed trilateral cooperation development.

PLANT'S PRODUCTION PROCESS AUDIT

Pavel Kiryukhin, Deputy Chief Designer at Izolyator familiarized the representatives of the Belgian delegation with the details of production process and quality control on all production stages of high-voltage bushings. They met with designs and modern production technologies of high-voltage bushings with hard internal RIP insulation.

In the result of the successful production audit, Bert Wouters, Expert HV Substations TGX / Technical Gov-

ernance & expertise at Elia appreciated highly the reliability of Izolyator bushings and showed confidence on their applicability for Elia's power grid facilities.

Izolyator plant will be included in the reliable supplier list of Elia.

Rudy Van Den Bosch, Quality Manager at CG Power Systems Belgium NV marked the high level of the plant's technological infrastructure and product quality that meets all relevant international standards' requirements.

INSPECTION OF HIGH-VOLTAGE BUSHINGS TESTS

Representatives of the Belgian companies inspected the second stage of type tests ran on Izolyator transformer 100 and 172 kV bushings made for operation in Elia's power grid.

Izolyator's Alexander Novikov, Quality Director joined the test team while Dmitry Ivanov, Head of Test Center managed the testing.

The tests results showed that the bushings features correspond to all international standards.

MEETING AT FGC UES AND TALKS ON THE PROSPECTS OF INTERNATIONAL COOPERATION

The business visit agenda continued with the Belgian delegation's talks at the Federal Grid Company of Unified Energy Systems of Russia headquarter where an official meeting with participation of FGC UES and Izolyator represented by Alexander Slavinsky and Ivan Panfilov took place.

Nikolay Shvets, Deputy Chairman of the Board of Directors at FGC UES PJSC headed the delegation of the receiving side.

The power grid companies of Russia and Belgium shared experience of high-voltage equipment operation on power grid facilities of the two countries and discussed plans of power grid infrastructure development by widely using innovative technologies. The sides shared information of the structure and key indicators of the generation, transmission and

distribution systems of electric power in Russia and Belgium.

The specialists of the Belgian companies and Izolyator plant told about their activities and international cooperation, illustrating HV RIP bushings application on European grid facilities. Belgium through its state power grid company Elia became the first in Europe to initiate a transition program from HV OIP bushings to HV RIP bushings, while Izolyator became the first supplier of that type of bushings under the program.

Izolyator is a regular supplier of high-voltage bushings to power grid facilities of the Unified national (all-Russian) power system. It has positive conclusions of FGC UES's attestation commission.

Based on the long term successful cooperation with Izolyator plant and the high quality of its products, FGC UES confirmed intention to recommend Izolyator as HV bushings supplier to the power system of Belgium and Europe in general.



Public limited company Federal Grid Company of Unified Energy System (FGC UES PJSC) is a subsidiary of Rosseti PJSC founded in the result of power industry reform with the purpose of the national power grid management for its preservation and development.

At the end of the meeting, all the participants expressed their interest and firm intention to continue activities in development of the Russia-Belgium coordination in power industry, including further exchanges of experience in operation of high-voltage bushings with hard internal RIP insulation made by Izolyator.

We would like to thank representatives of Elia, CG Power Systems Belgium NV and FGC UES PJSC management for the high opinion of Izolyator's activities as well as the demonstrated trust with innovative power equipment supplies to the Russian and European power markets!

On the Global Level



Participants of the international conference dedicated to the 120th Anniversary of Izolyator, organized in Italy



Ivan Panfilov is making a presentation to the conference audience - representatives of the world's leading power grid and electrical engineering companies



Participants of the open seismic tests of Izolyator bushings at CESI S. p. A. in Italy

In June 2016, Izolyator carried out open tests of own made high-voltage bushings and an international conference dedicated to the 120th Anniversary of the company, organized in Italy. The tests were performed at CESI S. p. A. — one of the world recognized test laboratories.

On those days, Izolyator carried out a series of successful seismic tests in presence of international experts — representatives of the leading power grid and electrical engineering companies of the world.

420 kV RIP transformer bushings were put to tests. The main objective was to confirm

the bushings' conformity to the requirements of the customer — Power Grid Corporation of India Limited and the standards of the International Electrical Commission.

During the series of tests the high-voltage bushing withstood a seismic load of more than 9 on MSK-64 scale.

Absence of mechanical damage and stability of electric parameters of the main insulation of the bushing before and after the tests once again demonstrated the high quality and reliability of HV RIP bushings design, developed and manufactured by Izolyator company.

According to the experts, the event was not only meaningful for the RIP design promotion, but for development of the world's power industry in general.

Izolyator organized and held an international conference, which became a special event in celebration of the company Anniversary. International experts shared unique experience in design, manufacture, operation and maintenance of high-voltage bushings with RIP insulation.

Besides, the participants of the event discussed issues of present interest in development of generation, transmission and distribution of electric power as well as modern trends in the global power industry in general.

The conference went in the atmosphere of a very open and interested dialog.



Izolyator HV bushing on a test rack at CESI S. p. A.

CESI

CESI is an independent center of expertise and a global provider of technical and engineering services to customers throughout the energy value chain, including business and technical consultancy, engineering and operational support. The center acts as owner's engineer and provides qualified third-party opinion to power utilities worldwide. Through its top-class modern testing facilities located in Milan, Berlin (IPH GmbH) and Mannheim (FGH GmbH), CESI is among the leading international organizations providing measurements and inspection, testing & certification and design review services to the global power industry.



GIULIANO BERTOLAZZI

Partner of Izolyator in Europe

Izolyator team members once again demonstrated their professionalism, responsibility, experience and proved that their work on successful and quality promotion of products and new technologies on the European market find a serious response both with old and new partners. Business visits to a number of European countries used to reach agreement on further partnerships development and formulate plans on practical interaction were comprehensive and productive.

Ultimately, they new quality of the dialog was revealed at the International conference with tests of 420 kV high-voltage bushings with solid RIP insulation. The event sparked interest with a wide audience of invited specialists representing power grid companies and power engineering products manufacturers from France, Italy, Germany and India.

I am confident that the plant with a 120 years history equipped with the most advanced machinery and ran by passionate professionals has all what it needs for development and conquering new summits. The prospects that are opening for Izolyator plant today are based on the highest quality of its products, unique technologies and the highest qualification of personnel.

I wish to thank our European partners for their intention to international cooperation expansion, interest and productive joint activities. I am confident we will see success of our joint projects and will be glad to make an input in their development.

WE VALUE OUR PARTNERS ABOVE ALL!

Audit Proves a Success



The Terna Group (Terna S. p. A.) is the first grid operator for electricity transmission in Europe. Through Terna Rete Italia the Group safely manages the National Transmission Grid with over 72,000 km of HV lines. Terna Rete Italia is the company belonging to the Terna Group that deals with the national electricity grid's operation, maintenance and development fully respecting the environment and communities.



Getra is an Italian Group, a leader in design, manufacture and supply of Power Transformers, Distribution Transformers and Grid Solutions. It was established in 1949 and nowadays it has a track record of 250.000 Transformers Supplied in Europe, America, Asia and Africa. With five Companies (Getra Power S.p.A., Getra Distribution S.r.l., Getra Service S.r.l., Getra Engineering & Consulting S.r.l. and Getra Ecopower), two Plants featured with the most advanced technologies for Production & Testing, two Branches in Africa and Middle East, Getra Group covers and accomplishes the needs of an increasingly dynamic and developing Global Market with a complete range of tailor made, efficient and high quality solutions.

Anna Maria Fabretto represented Terna S. p. A. On behalf of Getra S. p.A. industrial group three auditors arrived:

- Giuseppe Lucci, Head of Procurement,
- Fabrizio Ferrari, Quality Manager,
- Angelo Vitiello, Engineer.

Izolyator is Official Supplier to Getra S. p. A.

Izolyator became an official supplier to the Italian industrial group Getra S. p. A. having received an official confirmation letter on the successful result of the qualification audit of 25 February 2016

and listing confirmation among Getra S. p. A. qualified suppliers.

We wish to thank Getra S. p. A. for their high appreciation of Izolyator plant and the quality of its products!



Qualification audit of Izolyator plant by the industrial group Getra S. p. A. with participation of Terna S. p. A. representative

On Izolyator side the following colleagues made provisions for the audit:

- Alexander Novikov, Quality Director,
- Vladimir Ustiniov, Deputy Quality Director,
- Dmitry Ivanov, Head of Test Center,
- Natalia Mazova, International BDM,
- Yaroslav Sedov, BDM.

The auditors received full access to all production cycle technologies: from early stages of design to finished goods shipment. All relevant technical

documentation was provided immediately upon request. The auditors received full and complete replies and explanations on all issues of interest.

In the result, the audit ended with a successful result with Italian specialists stating unconditional conformity of the plant to the best world's standards.

We wish to thank Terna S.p.A. and Getra S.p.A. for their high opinion on Izolyator plant as a result of the audit.

Developing Cooperation With Amnest Group



Representatives of Amnest Group at the Test Center of Izolyator plant getting familiarized with the production facility

GETRA
GETRA POWER SpA
Power Transformers
Marcianise, 31/03/2016

"To whom it may concerns"

Object: Qualification Process

We hereby confirms to have successfully completed the Qualification Process relating to the evaluation of IZOLYATOR COMPANY (MASSA LLC).
"Izolyator Company" was included in the GETRA's Qualified Suppliers List (Ref. doc. RSF 02-16) and it's authorized to provide RIP and OIP type Bushings.

Best Regards

F. Ferrari
(Quality and Environment Manager GETRA S.p.A.)

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GETRA S.p.A.

Certificate of conformity
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Abdulaziz Mohammed Alnamlah Holding Group Company (AMNEST) was established in 1996 by Eng. Abdulaziz Bin Mohammed Al Namlah as a family Group Company under which 14 companies do business in various sectors; industrial sector, services sector, trading sector, construction and contracting, and real estate development as well.

In May 2016, representatives of Abdulaziz Mohammed Alnamlah Holding Group Company, Saudi Arabia paid a working visit to Izolyator plant.

In Izolyator the guests were received by: Ivan Panfilov, Commercial Director, Andrey Shornikov, International BDM, Yaroslav Sedov, BDM.

During the visit, Izolyator plant's production capacities were presented. The parties spoke about cooperation and joint projects in production and sales of innovative electrical engineering products.

Visit of GE Grid Solutions Representative



Examining assembly station of 220–1150 kV bushings, L-R: Steffen Breuer, Alexander Slavinsky, Yaroslav Sedov, Natalia Mazova and Vladimir Ustinov



GE Grid Solutions is serving customers globally with over 20,000 employees in approximately 80 countries. GE Grid Solutions helps enable utilities and industry to effectively manage electricity from the point of generation to the point of consumption, helping to maximize the reliability, efficiency and resiliency of the grid.

In August 2016, Dr. Steffen Breuer, Commercial Director Eastern Central Europe, Central Europe Region, GE Grid Solutions visited Izolyator.

The visitor was received by Alexander Slavinsky, Chairman of the Board of Directors and his colleagues Vladimir Ustinov, Deputy Quality Director, Natalya Mazova, International BDM and Yaroslav Sedov, BDM.

The sides exchanged opinions about the regional power equipment markets condition, trends and development forecasts agreeing that the main direction of corporate development in modern conditions is a long term partnership on the basis of joint activities to introduce and

implement innovative technical and engineering solutions in power industry.

On the eve of the 46th Session of the International Council on Large Electric Systems — CIGRE — a special focus in the talks was given to interaction between GE and Izolyator within this largest international non-governmental and non-commercial organization in power industry. Alexander Slavinsky represents Russia in the Study Committee CIGRE SC D1 and leads the Study Committee D1 of the Russian National Committee in CIGRE (RNC CIGRE) "Materials and emerging test techniques". Izolyator is a member organization of RNC CIGRE with a status of the Leading science and engineering partner of RNC CIGRE.

The visit agenda included a tour of Izolyator plant that familiarized Steffen Breuer with the design and modern production technologies of high-voltage RIP bushings. Dmitry Ivanov, Head of Test Center at Izolyator showed the guest the test facility equipment and its capabilities.

Steffen Breuer praised innovative technical solutions, advanced equipment and production potential of Izolyator as meeting the most modern perceptions of high-tech power equipment OEM with global operations.

Visit of Tempek Foreign Trade Co Representatives



Tempek Foreign Trade Co. represents some of the well-known manufacturers in distribution & power transformer protection and measurement equipment of the best quality in Turkey and in other countries.

Representatives of Tempek Foreign Trade Co. visited Izolyator plant on 22 November 2016.

On Izolyator side, the guests were received by Natalia Mazova, International BDM and Yaroslav Sedov, BDM.

The sides entered talks about possible directions of cooperation with hosts offering a plant tour after the official part — to introduce the visitors with designs and modern production and test technologies of high-voltage bushings with solid RIP insulation.



Representatives of Tempek Foreign Trade Co and Yaroslav Sedov (R) at the plant's Test Center

GE Grid Solutions's Audit



Participants of the audit at the Test Center of Izolyator, L-R: Alexander Novikov, Evgeniy Trifonov, Basri Gozusulu, Yaroslav Sedov and Victoria Loshchinina

GE Grid Solutions ran Izolyator production facility audit on 4 October 2016.

GE Grid Solutions is a global and strategically important partner to Izolyator whose sales team had been developing relations with it over several years.

Basri Gozusulu, Regional Supplier Quality Manager (EMEA, Turkey, Russia) | Lead Auditor Program Manager and Evgeniy Trifonov, Lead commodity management specialist at Alstom Grid JSC (Russia) arrived at the plant with an audit.

Izolyator employees actively engaged in audit together with their colleagues:

- Alexander Novikov, Quality Director and quality department staff,
- Dmitry Abbakumov, Deputy Commercial Director,
- Julia Tyurina, HRM,

- Yaroslav Sedov, Business Development Manager,
- Victoria Loshchinina, Sales Manager,
- Boris Sobelman, HSE specialist, health and safety systems, environmental management, chemicals handling were audited.

The audit was successful. The auditors specially appreciated the level of industrial standards and operating culture, which appeared to be the highest of all among recent audits.

The audit resulted in receipt of Certified GE Grid Solutions supplier status by Izolyator. The status is valid for all branches of GE Grid Solutions around the world.

We would like to thank the auditors for their work and appreciation of the most important aspects of the production process!

Visit of Izolyator Partner in Europe



The business meeting at Izolyator plant, L-R: Ivan Panfilov, Victoria Loshchinina, Natalia Mazova, Yaroslav Sedov and Giuliano Bertolazzi

In December 2016, Giuliano Bertolazzi, the Izolyator's partner in Europe, visited Izolyator plant.



- The visitor was received by:
- Ivan Panfilov, Commercial Director;
 - Natalia Mazova, International BDM;

- Yaroslav Sedov, BDM;
- Victoria Loshchinina, Sales Manager.

The partners summarized results of the large and successful commercial work done in 2016 together with the leading European energy and industrial companies. At the second part of the meeting, the partners prospected activities and set international business development targets.

**ANDREY SHORNIKOV**

International Business Development Manager at Izolyator

The main competition in one's life, be it a human or a company, is competing against yourself. We can say in 2016 Izolyator showed a great result in a contest of this type. The year was rich in events and achievements, productive meetings and accomplished projects.

The first half of 2016 was remarkable due to confirmation of successful tests of HV RIP bushings by India's PowerGrid. The bushings were designed and made for PowerGrid. The colleagues from India visited our plant and carried out type tests of the products. This event was followed another one — of truly international scope — seismic tests, which we ran in one of the world's leading test laboratories CESI S. p. A. Besides PowerGrid inspectors, experts from power grid companies and transformer plants from European countries participated in the tests.

I would like to draw your attention to the final stage of the acceptance tests of the 420 kV 1250 A RIP bushings. It was preceded by the electric tests of the bushing under rain at the All-Russian Electrical Engineering Institute named after V.I. Lenin. All the tests of our high-voltage bushings went successfully proving good prospects of our technologies promotion.

We hope to continue cooperation with our partners. Today, the market is developing and growing giving chances for development to all manufacturers including our company. Izolyator, however, has serious advantages: modern technologies building on decades of experience.

Transition to RIP insulation is a global trend, therefore we expect a growing number of orders. In the New Year I would like to wish our partners all the best and prosperity. We are always prepared to render technical support starting from equipment installation and ending with technical seminars for our partners' staff.

INDIA - RUSSIA: DEVELOPMENT OF A LONG TERM COOPERATION

Meetings at Power Grid Companies in India



Meeting with PowerGrid management, L-R: Ajai Kumar Vaish, Ivan Panfilov, I.S.Jha, Chairman of the Board, Andrey Shornikov and Ashok Singh



Izolyator's conference attendees at PowerGrid



PowerGrid Corporation of India Limited (PowerGrid) is an India-based state company engaged in construction, operation and maintenance of interstate transmission system (ISTS). The company's core business is transmission of bulk power across the states of India. The company also renders telecom and consultancy services. The telecom business is part of PowerGrid's transmission infrastructure across the country. As regards consultancy services business unit, it includes all projects in engineering, procurement and construction within and outside India: electrical power transmission and distribution by state-owned and private utilities, energy efficiency, smart grid and training. The Company owns and operates transmission network of about 106.804 Ckm of Extra High Voltage (EHV) transmission lines, 184 EHVAC & High Voltage Direct Current (HVDC) Substations and 205 923 MVA transformer capacity.

Izolyator had a meeting and organized a conference at the State Power Grid Company Power

Grid Corporation of India Limited in February 2016 in Gurgaon.

Izolyator was represented by:

- Ivan Panfilov, Commercial Director;
- Andrey Shornikov, International Business Development Manager;
- Dr. Ashok Kumar Singh, Partner in India.

The visitors were received by:

- Prem Kumar Gupta, General Manager (CMG);
- Kailash Rathore, General Manager;
- Anurag Srivastava, Dy. Manager (Material Department).

Besides, meetings with HV bushings operators and representatives of legal and operations departments of PowerGrid took place.

The sides discussed possibilities of RIP bushings of new designs and classes development and production in required quantities for operation at PowerGrid facilities. The partners discussed all aspects of current cooperation and prospects of business development.

On 18 February, our colleagues gave a conference "Key Facts About Izolyator company. Summary of activities, plans and suggestions". Power-

Grid's staff responsible for OEMs cooperation took part in its work.

The conference went in the atmosphere of mutual interest and involved a broad discussion of the offered topics with Ivan Panfilov giving detailed answers to the questions from the audience. Izolyator representatives received official certificates with confirmation of successful type tests of HV bushings for voltage classes 52, 245 and 420 kV.

The main outcomes of the conference are suggestions on:

- efficient utilization of Izolyator's unique experience in RIP technology and cooperation with largest grid companies;
- work optimization with Indian transformer plants;
- design and production set up of new bushings at Izolyator plant that would be operated at PowerGrid facilities.

We would like to thank Power Grid Corporation of India Limited for their invitation, a warm welcome and a high level of conference organization!



Partner of Izolyator in India Dr. Ashok Singh (L) and Vikram Singh Bhal, Deputy General Director at PowerGrid



Meetings at PowerGrid: strengthening business relations

A group of Izolyator representatives led by Ivan Panfilov, visited power grid companies APTRANSSCO and TSTRANSCO in in November in India.

The group included Andrey Shornikov, International BDM and Dr. Ashok Singh, Izolyator partner in India.



The Transmission Corporation of Andhra Pradesh Limited (APTRANSCO) was founded in the result of India's power industry reform. Initially, the power company of Andhra Pradesh State APSEB, which came into existence in 1959, was responsible for generation, transmission and distribution of electricity. In 1998, under Electricity Sector Reforms agenda, the State Government promulgated APSEB division into a generating company (APGENCO), a transmission company (APTRANSCO) and four distribution companies (APDISCOMs).

On behalf of Transmission Corporation of Andhra Pradesh Limited Izolyator representatives were received by:

- S. Subrahmanyam / Director Projects;
- K. Vijayanand / Chairman & Managing Director.

Izolyator presented its products and discussed possibility of high-voltage bushings supply to APTRANSCO as part of transformers by Indian manufacturers.



Meeting with APTRANSCO management



The Transmission Corporation of Telangana Limited (TSTRANSCO) was founded in the result of India's power industry reform. Initially the power company of Andhra Pradesh State APSEB, which came into existence in 1959, was responsible for generation, transmission and distribution of electricity. In 1998 under Electricity Sector Reforms agenda, the State Government promulgated APSEB division into a generating company (APGENCO), a transmission company (APTRANSCO) and four distribution companies (APDISCOMs). In 2014 APTRANSCO was divided into regional network companies: TSTRANSCO and APTRANSCO.

In the Headquarter of Transmission Corporation of Telangana Limited the guests were received by:

- D. Prabhakar Rao / Chairman & Managing Director;
- T. Jagath Reddy / Director Transmission.

Izolyator representatives introduced product range and discussed possibility of HV bushings delivery to TSTRANSCO via transformer plants of India.



Meeting with TSTRANSCO management

SUCCESSFUL COOPERATION WITH INDIAN TRANSFORMER MANUFACTURERS

Toshiba Transmission & Distribution Systems (India) Pvt. Ltd.



Participants in Izolyator seminar at TTDI



Attendees of the business meeting at TTDI

TOSHIBA

Toshiba Transmission & Distribution Systems (India) Pvt. Ltd. (TTDI) produces transformers. The company was incorporated in 2013 and is based in Medak, India. Toshiba Transmission & Distribution Systems (India) Pvt. Ltd. operates as a subsidiary of Toshiba Corporation. Toshiba Transmission & Distribution Systems group is a world leader in the supply of integrated solutions for energy Transmission & Distribution.

In February 2016, Izolyator held a meeting and a seminar at Toshiba Transmission & Distribution Systems (India) Pvt. Ltd in Hyderabad.

Izolyator was represented by:

- Ivan Panfilov, Commercial Director,
- Andrey Shornikov, International BDM,
- Dr. Ashok Kumar Singh, Partner in India.

The guests were received by:

- Dr. Katsutoshi Toda, Chairman & Managing Director,
- Kolla Sharat Chandra, General Manager (Power Transformers Division);
- Atmaram Shinde, Procurement Strategy (Corporate and Power Transformers);
- K. V. Ramakrishna, Manager — Quality (Power Transformers Division).

Specialists from TTDI's commercial and technical divisions also attended.

The delegates made acquaintance with Stefano Punte, Project Engineer (Engineering Dep) at Toshiba Transmission & Distribution Europe S.p.A.

The sides discussed possibilities of HV bushings development according to TTDI technical requirements, nearest prospective projects that Izolyator can be considered by TTDI as a potential supplier.

TTDI has experience of transformers with Izolyator 220 kV bushings delivery. It was shipped to Sochi, Russia to be used on power facilities of Federal Grid Company of Unified Energy System.



Meeting with TTDI management, 2nd on the left: Dr. Katsutoshi Toda

Izolyator gave seminar introducing the company and products, unique experience in development, production and supply of HV RIP bushings of various voltages. Seminar attendees received detailed technical information and answers to all questions regarding RIP technology design and operation features.

In June 2016, a group of Izolyator representatives led by Ivan Panfilov, Commercial Director visited Toshiba Transmission & Distribution Systems (India) Pvt. Ltd. in Gurgaon, India.

Izolyator was represented by:

- Ivan Panfilov, Commercial Director,
- Andrey Shornikov, International BDM,
- Dr. Ashok Kumar Singh, Partner in India.

The guests were received by Dr. Shunji Chigusa, General Director / Transformer Division.



TTDI manufacturing facility (photo from official webpage of TTDI in Facebook)

The sides spoke about potential deliveries of Izolyator high-voltage bushings.

A group of Izolyator representatives led by Ivan Panfilov visited Toshiba Transmission & Distribution Systems (India) Pvt. Ltd. in India in November 2016.

Izolyator delegation included Andrey Shornikov, International BDM and Dr. Ashok Singh, Partner of Izolyator in India.

On behalf of Toshiba Transmission & Distribution Systems (India) Pvt. Ltd. the guests were received by:

- Dr. Katsutoshi Toda / Chairman & Managing Director;
- Sharat Chandra / Sales and Marketing Head;
- Anil Kumar / Purchase and Marketing.

The visitors made a presentation about Izolyator and its products. The sides discussed TTDI's demand in Izolyator high-voltage bushings in the near time and long term prospect.

We would like to thank Toshiba Transmission & Distribution Systems (India) Pvt. Ltd for their invitation and efficient cooperation!

Bharat Heavy Electricals Ltd.



Bharat Heavy Electricals Ltd. (BHEL) designs, manufactures, tests, installs and services a product mix of more than 180 articles for such key industries as power, oil and gas, defense and railway transportation, etc. It is an industrial leader in India with presence in 76 countries.

In February 2016, Izolyator representatives visited Bharat Heavy Electricals Ltd in New Delhi in India.

Izolyator was represented by:

- Ivan Panfilov, Commercial Director;
- Andrey Shornikov, International Business Development Manager;
- Dr. Ashok Kumar Singh, Partner in India.

The guest were welcomed by:



Participants in BHEL meeting

- Akhil Joshi, Executive Director (TL & JV and M & A);
- Shakil Kumar Manocha, General Manager (Technology Licensing & Joint Ventures);
- Ravi Joshi, Senior Manager (Technology Licensing & Joint Ventures);
- Shivang Bhushan, Sr. Engineer (TL & JV);
- Ritesh Yadav, Sr. Manager (Technology Licensing & Joint Ventures),
- V.K. Bassi,
- Ritesh Yadav.

The sides discussed possible directions and forms of cooperation development and measures to optimize practical coordination. In view of the latter, BHEL formed a working group to increase efficiency of joint activities.

We wish to thank Bharat Heavy Electricals Ltd for the invitation and cooperation, and always a warm welcome!

Transformers & Rectifiers (India) Ltd



Transformers & Rectifiers (India) Ltd (T & R), founded in 1994, makes power equipment including a wide range of transformers for domestic and global markets.

In June 2016, a group of Izolyator representatives, led by Ivan Panfilov, Commercial Director visited Transformers & Rectifiers (India) Ltd in Ahmedabad.

Izolyator delegation included Andrey Shornikov, International BDM and Dr. Ashok Singh, Partner of Izolyator in India.

The sides discussed T&R demands in HV RIP bushings for Power Grid Corporation of India Limited.



L-R: Ivan Panfilov, Mamtara, MD at T&R and Andrey Shornikov

We would like to thank Transformers & Rectifiers (India) Ltd for the invitation and a productive dialog!

In November 2016, a group of Izolyator representatives visited Transformers & Rectifiers (India) Ltd.

On behalf of T & R the guests were received in the city of Ahmedabad by:

- Saumil Shah / General Manager/Procurement;
- Vivek Raval / Manager Procurement.

The sides discussed issues of present interest in current cooperation and outlined future prospects.

TBEA Energy (India) Private Limited



Meeting at TBEA India



At the meeting in TBEA India the sides established business contacts



TBEA is an enterprise group which is accredited by Chinese government, to be engaged in foreign economic and technical cooperation and to undertake national external assistance projects in four industrial fields: Transmission, Transformation, New Energy and Advanced Materials. TBEA is the core enterprise of CHINA's major Electrical Equipment manufacturing industry, and is the first listed Transformer enterprise of China.

In November 2016, a group of Izolyator representatives visited TBEA Energy (India) Private Limited.

On behalf of TBEA India in Vadodara:

- Sanjeev Kumar / Assistant Manager/Product Design;

- Satyam Dewangan / AGM (Procurement);
- Kunal Kumar/ Senior Manager — Product Design;
- Sujeet Singh / CEO;
- Tarun Sharma / HEAD SCM;
- Pareshkumar Patel / Engineer — Purchase.

Izolyator presented its innovative products and set up business ties. The sides discussed design features and operational aspects of Izolyator HV RIP bushings.

GET & D India Ltd.



GET & D India Ltd. engages in the power transmission and related activities in India and internationally. The company manufactures long distance transmission equipment, such as switchgears for air insulated substations or gas insulated substations, circuit breakers, power transformers, and instrument transformers.

Izolyator visited GET & D India Ltd. in Ahmedabad, where they were received by Nitesh Pandey / Unit supply Chain Manager / Large Transformer.

After business contacts were set up and Izolyator gave presentation of its innovative products, GET & D India Ltd showed great interest to Izolyator HV RIP bushings.

We would like to thank the Indian companies for the invitation and a warm welcome!



Meeting participants at GE T&D India Ltd

**ASHOK SINGH***Izolyator Partner in India*

World class operation is what makes Izolyator stand out. In 2016 we held meaningful and productive meetings both with representatives of the state energy company Power Grid Corporation of India Limited and representatives of power equipment OEMs in India. All those meetings were marked with interest to the company and its products.

In November 2016, we received an opportunity to tell about Izolyator products advantages to potential partners. We gave presentations and clarified cooperation prospects. Personal contacts, live meetings are precious moments that show attention, openness and interest in partnerships development.

Of course, the key achievement in 2016 was successful seismic tests of 420 kV RIP bushings, equipment which was designed and made for Power Grid Corporation of India Limited. These tests were carried out at the independent test center CESI S. p. A. in Italy. Tests of such level aren't an easy task, but everything was organized according to the world standards to demonstrate Izolyator partners the highest quality level and professionalism of specialists.

I am confident that in 2017 Izolyator will continue its movement towards leadership in design, production and implementation of modern technologies in power industry. I am glad to be a part of this process.

HIGHEST WORLD STANDARDS OF OPERATION

Meetings at TRAFOTECH Workshop Seminar



TRAFOTECH is the International Conference on Transformers, held once in four years, under the auspices of Indian Electrical and Electronics Manufacturers Association (IEEMA), the apex national body representing the electrical manufacturing industry in India.

TRAFOTECH conferences provide a common platform for transformer designers, R & D personnel, Academicians, Manufacturers and Users to discuss state-of-art of technology and emerging trends.

At the seminar several business meetings with representatives of Indian grid and industrial companies management were held: Power Grid Corporation of India Limited, Transformers & Rectifiers (India) Ltd, Gujarat Energy Transmission Corporation Limited and Easun — MR.



Power Grid Corporation of India Limited (PowerGrid) is an India-based state company engaged in construction, operation and maintenance of interstate transmission system (ISTS). The company's core business is transmission of bulk power across the states of India.

Power Grid Corporation of India Limited was represented by R. P. Sasmal / Director (Operations)

During the meeting with representatives of Indian transformer plants, R.P. Sasmal confirmed the high engineering level and quality of Izolyator high-voltage bushings.

Mamtora, Managing Director represented Transformers & Rectifiers (India) Ltd at the seminar.

Strategy of cooperation development was discussed at the meeting.

Surinder Kumar Negi, Managing Director represented Gujarat Energy Transmission Corporation Limited.



Gujarat Energy Transmission Corporation Limited (GETCO) is an electrical power transmission company in the state of Gujarat, India. The company is now a subsidiary of Gujarat Urja Vikas Nigam Limited.

The sides established contact and discussed technical side of HV RIP bushings application. Surinder Kumar Negi found possible to have such bushings installed in the power grid facilities.

Easun — MR was represented at the meeting by:

- Shrikant Potnis / CEO;
- R. Prakash / Country Head.

The sides discussed results of cooperation and its further expansion in the near future.



Easun — MR (EMR) is an Indo-German Joint Venture with the Maschinenfabrick Reinhausen GmbH (MR) and the Easun Group of India. Maschinenfabrick Reinhausen GmbH, the joint venture partner in EMR are the technology leaders in Voltage regulation equipment.

We would like to thank the Indian companies and all the participants in the meetings for the productive dialog and strive for cooperation.

*R-R: Ivan Panfilov, Jitendra W Mamtora (T&R), Andrey Shornikov and Ashok Singh**L-R: Ashok Singh, Andrey Shornikov, Surinder Kumar Negi (Getco) and Ivan Panfilov**Meeting with EMR management*

VIII BRICS Forum



The 8th annual BRICS conference took place on October 15–16, 2016 in the Indian state of Goa and was attended by the five countries' leaders, who discussed a plan for cooperation in the near future as well as a wide range of political, economic and security issues. A number of bilateral meetings between the BRICS presidents took place on the sidelines of the Goa summit. BRICS is an association of five developing economies which comprise over one third of the world's population. The BRICS member-states (China, Russia, Brazil, India and South Africa) have a combined nominal GDP equivalent to approximately 20 percent of the gross world product.

Dr. Ashok Singh, Izolyator's Partner in India, took part in the 8th BRICS Forum in India.

Ashok Singh had several meetings with representatives of state bodies and business circles of BRICS countries at the Forum. Such issues as current international cooperation development were discussed at those meetings.



Ashok Singh (4th on the R) among delegates of the Russian Embassy in the Republic of India.

We have
supply record
ALL OVER
the world



Ashok Singh at the meeting with representatives of financial community, 2nd on the R — Andrey Kostin, President, Chairman of the Board, Member of Supervisory Board at VTB PJSC

The Tests are Passed!

The state Indian power grid company Power Grid Corporation of India Limited carried out five inspection of high-voltage bushings tests at Izolyator plant in 2016.

RIP bushings specially designed and made by Izolyator for installation in Crompton Greaves Limited transformers are to be used for operation in PowerGrid's facilities.

Our colleagues, inspecting engineers, visited the plant at different times:

- Himanshu Agarwal
- Sankaran Namboodiri
- Rajendra Kurava
- Richik Manas Das
- D.S. Singh

Izolyator's Dmitry Ivanov, Head of Test Center managed the tests. His colleagues from quality and sales departments and other divisions actively engaged in the provision of the testing.

All the tests and inspections went successfully having confirmed the high quality of Izolyator products.

We would like to thank all inspecting engineers for a highly qualified input and cooperation!

We appreciate Power Grid Corporation of India Limited for the high opinion about the quality of Izolyator products and cooperation that brings tangible results!



The tests and inspection went successfully! In the center - Inspecting Engineer of PowerGrid Richik Manas Das

**MAXIM OSIPOV***Head of CIS Sales*

2016 will be remembered by our activity in tenders and products deliveries in close cooperation with our partners. The CIS is a specific territory as the countries entering the Commonwealth are tied with many years of joint activities in power industry among others. So we should keep developing those relations.

Speaking about achievements in 2016, it is necessary to emphasize that we always aim at developing dialogs. Thus, in 2016 we strengthened our relations with our regional partner in Kazakhstan — Kentau transformer plant, the only to make transformers in the country. Besides, we value personal meetings and it is important that we visited our partners personally and received them with a return visit at Izolyator plant. We took part in a tender announced by the system operator of the unified power system of Kazakhstan KEGOC: as of now the delivery has been made in full.

Another important direction of our work is connected with the Georgian state power grid. We have actively developed our cooperation since 2015, so today, one can say there is stability in our relations.

We are in touch with the partners in Uzbekistan. The efficient interaction with power companies from neighbouring countries is one of our primary objectives. In the new year we will keep familiarizing power engineers and manufacturers with our product range, new designs and technologies building long term cooperation. We are always open to a constructive dialog!

On behalf of Izolyator and on my behalf, I wish our partners stability and uninterrupted operation, well-being and development in the new year.

On our part, we will do everything to make this year another solid step towards efficient partnership.

CIS COUNTRIES: KEY EVENTS OF THE YEAR

Visit of BelEnergoContract Representatives



The Republic of Belarus is an export-oriented state with a well-developed production sector, services sector and agriculture. Belarus is among CIS leaders in chemistry and petrochemistry, agricultural and automobile construction, agriculture, light industry, individual branches of the information and communication technologies industry.

In June 2016, Alexander Shchepkov, Deputy Director at the Unitary enterprise BelEnergoContract and Izolyator's partner in Belarus visited Izolyator plant.

Maxim Osipov, Head of CIS Sales and Victor Kiryukhin, Head of Design Bureau received the guest.

The hosts introduced the production capacities of the plant to the visitor and had talks about cooperation of the two companies.

*Izolyator plant tour, L-R: Victor Kiryukhin, Alexander Shchepkov and Maxim Osipov*

Meeting With a Partner in Belarus

*At the conference table at Izolyator plant, L-R: Ali Churaev, Maxim Osipov and Alexander Slavinsky*

In September 2016, Ali Churaev, Izolyator Partner in Belarus visited the plant.

The guest was received by Alexander Slavinsky, Chairman of the Board of Directors and Maxim Osipov, Head of CIS Sales.

The sides discussed the current market situation and major trend in power industry and on the market of high-voltage equipment of Belarus citing good progress in joint activities. The key topic of the talks was the strategy of further cooperation on the basis of mutually beneficial and long term business relations with Belarus power industry companies.

Both sides expressed intention to carry on with active development of partnerships outlining a number of practical steps in that direction.

Tests Inspection by Mozyr Oil Refinery



Mozyr Oil Refinery JSC produces an extensive range of petroleum products including motor gasolines, diesel oil, domestic heating oil, fuel oil, roofing petroleum bitumens, construction petroleum bitumens, road petroleum bitumens, LPGs for household use and LPGs meeting PN-EN 589:2009, vacuum gasoils, commercial sulphur, ecologically improved kerosene, petroleum benzene. Being an export-oriented enterprise, Mozyr Oil Refinery JSC supplies abroad up to 80% of the total products output. A favourable geographic location of the refinery, proximity of oil and product pipelines, multiple rail- and motorways make products available for consumers in the Ukraine, Moldova, Hungary, Romania, the Netherlands, Slovakia, Czech Republic, Poland, Baltic countries, Italy, Great Britain, Russia etc.

In October 2016, Mozyr Oil Refinery inspected 110 kV HV wall bushings tests at Izolyator plant.

Three Mozyrsky refinery representatives accompanied by Ali Churaev, Partner of Izolyator in Belarus, arrived for the inspection.

Dmitry Ivanov, Head of Test Center at Izolyator managed the tests. His colleagues actively en-

*Participants of HV bushings tests inspection by Mozyr Oil Refinery at Izolyator's Test Center*

gaged in provision of the inspection:

- Maxim Osipov, Head of CIS Sales;
- Alexander Novikov, Quality Director;
- Vladimir Ustinov, Dpty Quality Director;
- Pavel Kiryukhin, Dpty Chief Designer;
- Dmitry Karasev, Sales Manager.

All the tests and the inspection went success-

fully proving the high quality of Izolyator products.

The tests were continued with a plant tour and talks about cooperation development.

We appreciate Mozyr Oil Refinery for cooperation and high appreciation of Izolyator products!

Meeting With the Partner in Kazakhstan



Murat Botabaev (L) and Maxim Osipov at a substation in Kazakhstan



Covering an area of 2.724 million square kilometers, Kazakhstan has the ninth largest territory in the world. In the north and the west, the country shares border with Russia (7,591 km). Kazakhstan also has significant oil and gas resources and holds the 9th place in the world in proven oil reserves, most of which are located in the western regions. In addition, the country's uranium and coal deposits are the 2nd and the 8th largest in the world respectively.

In November 2016, Maxim Osipov, Head of CIS Sales at Izolyator visited Kazakhstan where he was received by the plant's partner in the country Murat Botabaev, Director at ASA-snab TOO.

The partners summarized interim results of 2016 and spoke about cooperation plans in 2017.

We wish to thank Murat Botabaev for the warm welcome and efficient cooperation!

Visit of Partners in Kazakhstan

In May 2016, Izolyator partners in Kazakhstan — representatives of DOC Co. LTD — visited our plant for the first time.

DOC Co. LTD was represented by Nurlan Sarbalin, Executive Director and Stanislav RyapISOV.

On Izolyator side the guests were received by:

- Victor Kiryukhin, Head of Design Bureau;
- Dmitry Karasev, Sales Manager.

The sides had talks on the issues of current co-operation and further activities plan.

During the plant tour, the guests familiarized themselves with the design and modern production and testing technologies of high-voltage bushings with RIP insulation.



By the internal insulation winding machine for 220 – 1150 kV bushings, L-R: Dmitry Karasev, Nurlan Sarbalin, Victor Kiryukhin, Maxim Osipov and Stanislav RyapISOV

Seminar for KEGOC Specialists



Joint Stock Company "Kazakhstan Electricity Grid Operating Company" (KEGOC) was established according to Government Resolution of the Republic of Kazakhstan in 1996. KEGOC JSC was appointed the System Operator of the Unified Power System of the Republic of Kazakhstan (UPS of Kazakhstan), and its main task is to maintain steady operation of UPS of Kazakhstan and reliable control of the National Power Grid pursuant to current engineering, economic and ecological requirements within the government policy.

In November 2016, Izolyator gave a seminar for technical specialists of the Kazakhstan Electricity Grid Operating Company (KEGOC).



Attendees of Izolyator seminar at Aurora SS operated by KEGOC

Maxim Osipov, Head of CIS Sales and Dmitry Mashinistov, Head of SVN-Service at Izolyator gave the seminar.

The audience learned about various aspects of diagnostics and operation of HV RIP bushings. The seminar went in the atmosphere of keen interest from the receiving side in form of an open dialog.

The seminar attendees also visited Aurora SS of KEGOC where Izolyator-made 220 and 500 kV bushings delivered at different times in the past continue to operate securely.

We would like to thank the Kazakhstan Electricity Grid Operating Company JSC for the invitation and seminar organization at the high level!

Talks With Representatives of Kentau Transformer Plant



Kentau Transformer Plant JSC (KTZ JSC) makes modern highly productive equipment allowing for efficiency increase of industrial enterprises. The key strategy of Kentau transformer plant is supplying the best electric engineering products to the market that meet consumer demands in quality, price, delivery terms and service support. The high quality and reliability of the products is possible due to application of modern and highly efficient equipment from leading western and European brands.

In September 2016, representatives of Kentau Transformer Plant Adilbek Tajibaev, Chief Designer Power Transformers 35–110 kV and Askar Kobdikov, Procurement Manager visited Izolyator.

Victor Kiryukhin, Head of Design Bureau and Dmitry Karasev, Sales Manager received the guests at Izolyator plant.

The hosts arranged for a plant tour, so the guests familiarized themselves with the design and modern production and testing technologies of high-voltage bushings with solid RIP insulation.

Thank you Letter of Kentau Transformer Plant



Kentau Transformer Plant #1381 dated 21 November 2016

TO: Alexander Slavinsky, Massa Ltd (Izolyator) Chairman of the Board of Directors

Thank you Letter

Dear Alexander Zinovievich,

Kentau Transformer Plant would like to thank Massa Ltd for the positive experience of cooperation in respect to high-voltage bushings delivery.

Hereby we confirm that the high-voltage bushings made by Massa Ltd (Izolyator Company) delivered to Kentau Transformer Plant JSC are of a high quality and have all necessary technical datasheets and certification.

All technical specifications and contracts addenda questions received fast response, which speaks for the high professional level of the management, sales and technical specialists of Massa Ltd.

Since the moment of power transformers production start, we have successfully developed partnership between Kentau Transformer Plant JSC and Massa Ltd and that fact allows us to recommend Izolyator as a reliable partner and manufacturer of high-voltage equipment.

We have no complaints on the quality of this product.

Sincerely,
Chairman of the Board of Directors
KTP JSC

H.K. Kozhabaev



At the assembly shop of Izolyator plant, L-R: Victor Kiryukhin, Askar Kobdikov, Adilbek Tajibaev and Dmitry Karasev

Talks With Izolyator Partner in Uzbekistan



The Power Industry of Uzbekistan is a base industry of the national economy of the republic. With its solid production and scientific engineering potential, it has a substantial impact on development of the country economy. The unified power grid of Uzbekistan fully meets demands in electric power from economy and population. Uzbekistan has become the biggest power state in Central Asia. The main energy producer in the country is Uzbekenergo JSC, specific body in charge of power grid operation that ensures a safe and reliable functioning of the unified power network and satisfaction of consumers demands in electric power. The leading enterprise of electric engineering sector in Uzbekistan is Chirchiq transformer plant that make transformers and package transformer substations for 6, 10, 35 and 110 kV voltage classes with 25 – 63 000 kVA capacity.

Armen Bunyatyan, Izolyator's partner in Uzbekistan visited Izolyator plant in February 2016.

Maxim Osipov, Head of CIS Sales and other Izolyator colleagues received the visitor.

The partners indulged into a thorough discussion of cooperation prospects expressing intention to actively develop beneficial business relations with leading Uzbek power industry companies and OEMs.



Armen Bunyatyan at the talks at Izolyator plant



Photo from official website of Chirchiq transformer plant JSC

Thank you letter of Chirchiq Transformer Plant

The Joint Stock Company Chirchiq Transformer Plant was founded in 1942 and for more than 70 years has operated on the market of machine building producing transformers and package transformer substations for 10,35,110 kV voltages and 25 to 63000 kVA capacity and providing technical service and maintenance of different complexity of power transformers of up to 500 kV voltage and to 125000 kVA capacity. Chirchiq transformer plant is a leading enterprise of the electrical engineering industry of the Republic of Uzbekistan.



The original Thank you letter in Russian

Chirchiq Transformator Zavodi JSC
1 Dec 2016 #1468/522-12

TO: S. Moisseev, General Director
Massa Ltd.

Thank you Letter

Dear Sergey Borisovich,

For more than 45 years Chirchiq Transformator Zavodi JSC has successfully cooperated with Izolyator (Massa Ltd) in respect to high-voltage bushings supply.

During those years, Izolyator proved a reliable and responsible partner. All products delivered to Chirchiq Transformator Zavodi JSC fully met technical specifications in the manufacturer's certificate of quality and arrived with no defects. There are no complaints and reclamations on the operating facilities.

Throughout our long term cooperation, all technical specifications and contracts addenda questions received fast response, which confirms the high professionalism of all divisions of Izolyator company.

Chirchiq Transformator Zavodi JSC recommends Massa Ltd as a reliable partner and manufacturer of high quality equipment.

We hope to continue our fruitful and mutually beneficial cooperation.

Sincerely,
Temporary Acting Director

A.E.Konyshv



Chirchiq transformer plant designed and made special purpose transformers for the TV tower in Ostankino in Moscow and the launch facility of the Soyuz-Apollo space program (photo from official website of Chirchiq transformer plant webpage)

Meeting With Partners in Ukraine



Power industry plays a very important role in the economy of the Ukraine. Approximately half of all primary fuels (coal, oil, gas, uranium) which is mined and imported by the Ukraine, as well as energy of some rivers is used for production of electricity and heat. Power industry development stimulates development of new industrial hubs. Some industries are drawn to the sources of cheap electric power, such as e.g. non-ferrous metallurgy. The power in the Ukraine is produced mostly at CHPPs, HPPs, PSPPs and NPPs. Usage of ecologically friendly power sources is planned in the future. The Ukraine possesses all opportunities for using alternative and nontraditional energy sources, for instance wind, solar and thermal energy.

In October 2016, Izolyator was visited by its partners in the Ukraine: Igor Grabko and Vasily Krupko.

Alexander Slavinsky, Chairman of the Board of Directors and Maxim Osipov, Head of CIS Sales at Izolyator received the guests.

The partners summarized interim results of successful cooperation in 2016 and spoke about prospects and strategic areas of cooperation in the next year.



The meeting with the partners in the Ukraine at Izolyator plant, L-R: Alexander Slavinsky, Maxim Osipov, Vasily Krupko and Igor Grabko

ArcelorMittal Kryvyi Rih Representatives See the Plant



Public Joint Stock Company "ArcelorMittal Kryvyi Rih" is one of the leaders among the largest enterprises of Mining and Steel Complex of Ukraine and part of the international company ArcelorMittal, the world's steel producer #1 and one of the largest foreign investors in the country. ArcelorMittal Kryvyi Rih PJSC is a full-cycle steel plant, which consists of the coke and by-product plant, ore mining (open pits and underground ore mining) and steel production.

In November 2016, Yuri Kuzmenko, representative of the Ukrainian ore mining and smelting integrated plant ArcelorMittal Kryvyi Rih visited Izolyator plant.

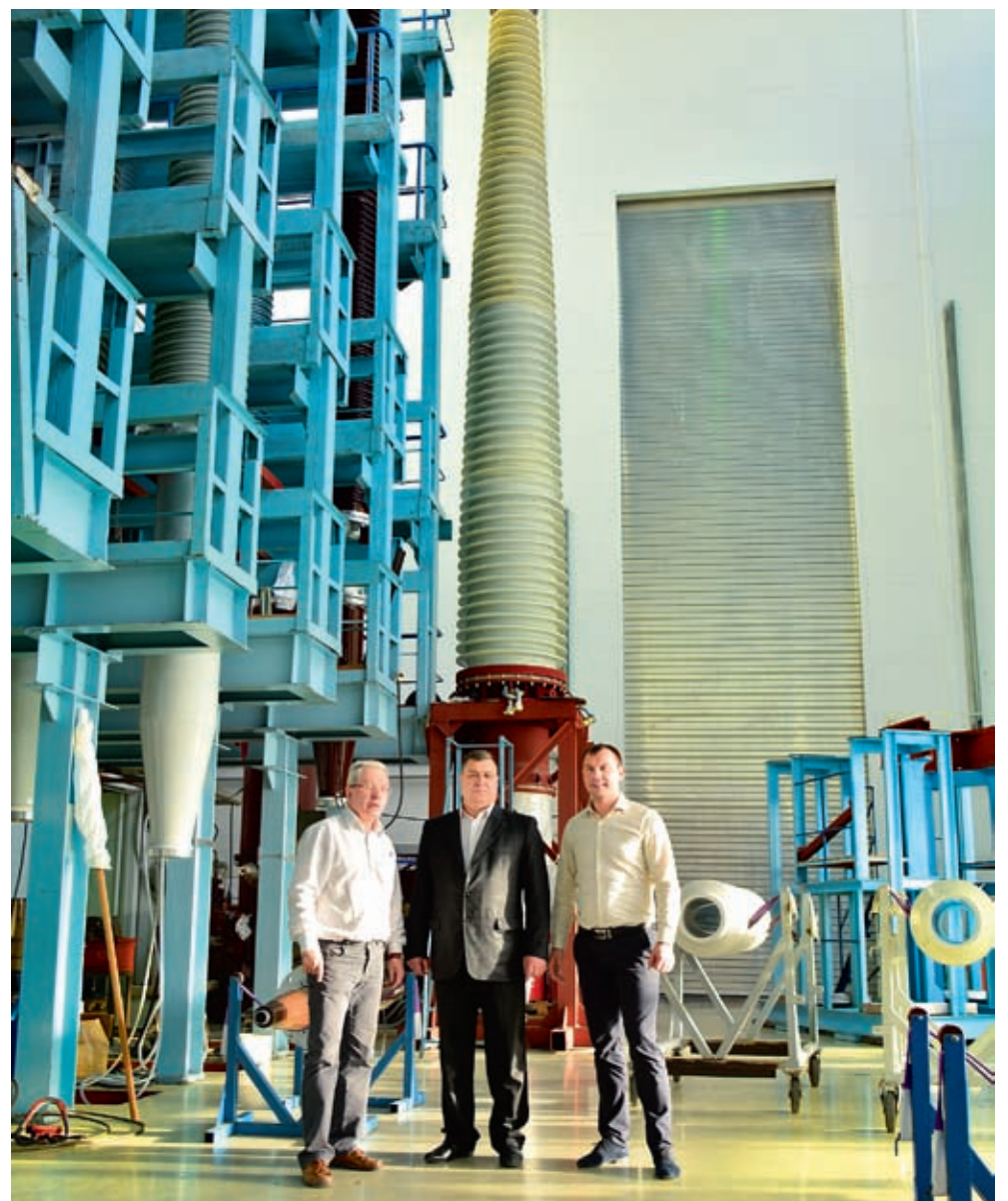
Dmitry Mashinistov, Head of SVN Service and Dmitry Karasev, Sales Manager received the guest.

The hosts arranged for a plant tour familiarizing the visitor with the design and modern production and testing technologies of high-voltage bushings with solid RIP insulation.



At the Test Center of Izolyator plant, L-R: Dmitry Karasev, Yuri Kuzmenko and Dmitry Mashinistov

Visit of Izolyator's Partner in Moldova



At the assembly shop of Izolyator plant, L-R: Victor Kiryukhin, Ivan Lupashkov and Maxim Osipov. In the background — 1150 kV bushings prepared for tests



The vision of the Republic of Moldova on the energy system development is presented in the Energy Strategy of the Republic of Moldova until 2030, approved by Government Decision no. 102 of 05.02.2013. The white-paper presents specific indicators for the development of the energy sector in the Republic of Moldova in order to provide the necessary basis for economic growth and social wellbeing. In this document, the Government of the Republic of Moldova presents the vision and identifies the strategic opportunities of the country in a rapidly changing energy context in the geopolitical space that includes the region of Central, Eastern and South Europe, Russia and the Caucasus region.

In December 2016, Ivan Lupashko, Izolyator's partner in Moldova visited the plant.

Maxim Osipov, Head of CIS Sales and Victor Kiryukhin, Head of Design Bureau at Izolyator received the guest.

The hosts arranged for a plant tour introducing the partner to modern production and testing technologies of high-voltage bushings with solid RIP insulation.

The partners summarized results of successful activities in 2016 and spoke about further plans for the coming year at the meeting.



SC D1 RNC CIGRE Activities Continued

SC D1 RNC CIGRE Materials and Emerging Test Techniques was created on the basis of Izolyator plant as a regular collegial body reporting to the Technical Committee of the RNC CIGRE. Izolyator plant received a status of the Leading scientific and engineering partner to RNC CIGRE. The agreement was concluded for the period of five years from 11 February 2016 till 10 February 2021. Dr. Alexander Slavinsky, Chairman of the Board of Directors at Izolyator headed the SC D1. The D1 study committee deals with theoretic research in electric insulating materials application in high-voltage equipment.

The 2016th will be remembered by a number of important events in the SC D1 activities.

First, the composition of the committee was finalized with 6 member societies, 21 individual members (6 individual RNC CIGRE members and 15 Russian power industry specialists).

Several groups of expertise were formed and group leaders appointed to specialize in research directions:

EG1 Insulating liquids in dielectric systems. Group leader — M.Lukyanov;

EG2 Solid dielectrics. Group leader — T.Shadrin;

EG3 Insulation systems diagnostics. Group leader — A.Monastyrsky;

EG4 Insulators and high-voltage bushings. Group leader — V. Ustinov.

EG5 Measurements at insulation testing. Group leader — T.Dubrovskaya.

During the year, the study committee had 4 meetings. The study committee's section in the official RNC CIGRE webpage was created in accordance with the international website of CIGRE with detail information on the committee's activities. The main SC D1 news are also updated on Izolyator corporate webpage and its information partner Energoexpert Magazine.

Let us recollect other events of 2016.

OUTGOING EXCURSION CLASSES AT IZOLYATOR PLANT

During the year Izolyator hosted several seminars on the study committee's topics for representatives of power grid and utility companies and OEMs.

Under the auspices of the study committee Izolyator held an excursion for listeners of the President's training program for engineers "Energy efficiency and power saving in power facilities design" dedicated to the topic of "Modern energy efficient equipment for power grid facilities and its application in design and operation processes".

Representatives of MRSK Center JSC, MRSK South JSC and Kubanenergo JSC attended the event.



Attendees of the excursion for listeners of the Presidential professional training program of engineers

With the purposes of talent pool formation from students and young specialists, magister students of technical universities and the Power faculty of MPEI, the study committee gave a seminar «Production and testing of high-voltage bushings at the manufacturing facility and their operational features».



MPEI Power faculty students on a plant tour

TAKING PART IN RUSSIAN EXHIBITIONS AND CONFERENCES

In 2016, the specialists of the study committee actively engaged in exhibitions and conferences organized in Russia, such as:

- Acoustic and vibrational methods in power equipment diagnostics Conference (April 2016, Kyshtym, Chelyabinsk region).



Participants of the Acoustic and vibrational methods in power equipment diagnostics Conference

- Scientific and practical conference 'Petroleum oils in power industry and issues of application and quality control. May 2016 NIU MPEI, Moscow.



Petroleum oils in power industry: issues of application and quality control 2016 Conference

- Participation in Diagnostics of technical condition of power equipment installed in HPPs seminar given to the electrical equipment, branches and monitoring services workers.



Bureyskaya HPP (photo courtesy press service of RusHydro PJSC)

- Participation in the round table dedicated to the topic of the National Association of Test Centers (NATC) creation in Russia, which was held as part of Modern trends in power distribution Exhibition and Forum agenda was held in the training center of Lenenergo PJSC. FIC PJSC (enters Rosseti) organized the event on 26 July 2016.



The round table dedicated to the topic of creation of the National Association of Test Centers of Russia

- Izolyator's participation the Rugrids-Electro 2016 International Forum, which was held on 18-19 October 2016 at the World Trade Center in Moscow. Izolyator as a leading partner of RNC CIGRE invited SC D1 RNC CIGRE members, editorial office of Energoexpert Magazine, Forum participants and its partners to attend a corporate event «Izolyator plant: the 120 year of innovation and high-voltage bushings production for the power industry».
- In the frame of the event Izolyator organized SC D1 RNC CIGRE working meeting. Vladimir Ustinov, coordinator of the committee and Deputy Quality Director at Izolyator made a short report on the outcomes of the 46th CIGRE session in Paris and RSEEC Conference in Bucharest. He offered topics for discussion on the expert's choice, which were connected with SC D1 research fields.



Participants of the SC D1 RNC CIGRE meeting held at Izolyator plant

- On 23 November 2016, representatives of SC D1 RNC CIGRE provided expertise in evaluation of the students' works submitted for the Power industry Olympic games named after A.F. Dyakov on the basis of the State Power University in Ivanovo.



Work of commission to evaluate the students' works submitted for the International student contest in power engineering named after A. Dyakov.

- Izolyator took part in the XXIV TRAVEK Conference: "Prospects of power industry and high-voltage equipment development. Commutation technique, converter equipment, microprocessor control and protection systems." TRAVEK International Association that was held on 8 - 9 November 2016.



XXIV Conference of TRAVEK international association

- On 6 - 9 December, Izolyator took part in the work of the XIX international exhibition Electric Networks of Russia 2016. During the exhibition, the organizers made a round table «Innovative technologies in power grid of the country». The D1 committee offered a report «Summarizing global trends in development and application of insulating materials. The committee representatives also spoke during the III scientific and practical conference «Control over technical condition of equipment at power facilities».



Round table "Innovative technologies in power system of the country"

INTERNATIONAL COOPERATION

- SC D1 representatives took part in the 46th CIGRE Session in August 2016. Alexander Slavinsky, SC D1 RNC CIGRE chairman joined FGC UES PJSC delegation, led by Andrey Murov, Chairman of the Board during the tour of the technical section of CIGRE exhibition. He also facilitated business meetings to discuss experience sharing with the energy companies Terna (Italy) and Elia / CG Power system Belgium NV (Belgium) taking an active part in them.



Alexander Slavinsky and Vladimir Ustinov are participants of the CIGRE Session.

- South East European conference (REEC 2016) held on 10-12 October in Bucharest, Romania became a bright event. Vladimir Ustinov, study committee coordinator joined the discussions of the reports on criteria of oils selection as a means of insulation in high-voltage measuring transformers; cross-flows of electric energy between Romania, Ukraine-Moldova-Hungary. He spoke about the experience of the Russian scientists with oils selection and application of the experience of Russia's unified power system with cross flows integration.



Participants of the RSEEC 2016 Conference

SUMMARY SITTING AT FGC UES

- In December 2016, there was a sitting of leading science and technology partners of study committees of the Russian National Committee of CIGRE held at the Federal Grid Company. The meeting was chaired by the Head of FGC UES, Chairman of the Russian National Committee at CIGRE Andrey Murov. The organization summarized results of activities in 2016 and considered development plans of the Association in connection with the international arrangements reached at the 46th CIGRE Session in Paris. Alexander Slavinsky, SC Chair made a report on the Study Committee's activities during 2016.



Final meeting at FGC UES of the leading scientific and engineering partners of study committees of RNC CIGRE

**OLEG BAKULIN**

Director on Partner Relations at Izolyator

For Izolyator, the last year proved rich in meaningful events. Memorandum on Cooperation between Rosseti PJSC and Izolyator signing, which happened at the RUGRIDS-ELECTRO venue. The memorandum concentrates around training topics: installation, operation and emergency works on high-voltage bushings. The main task for power engineers is not only to be able to fix the faults, but also to be able to prevent them.

We always emphasize that we are always open to dialog, so our cooperation never ends at the equipment delivery moment: warranty and post-warranty service, staff training, seminars for partners — those are an important part of our work.

Interaction with Rosseti PJSC in 2016 was very productive in general: in April we took a decision on joint tests, which were then carried out throughout the entire year. Besides, we revised and approved the new manuals.

In the modern world where time is one of the biggest values, it is imperative to keep promises and be punctual when fulfilling your obligations. Meeting delivery deadlines is an important part of our work that directly influences efficiency of our partners. So we carefully follow the project schedules.

In 2016 we successfully carried out several deliveries on time — that kind of standard will be used in the future.

In 2017 our main wish for our partners is there fault-free operation. Every year equipment gets more and more complicated, so we, on our side, do everything to make it reliable.

Memorandum on Strategic Cooperation With Rosseti PJSC

In October 2016, in the framework of the V Rugrids-Electro 2016 International Forum, a special event “Izolyator plant: the 120 years of experience in innovations and high-voltage bushings production for the power industry” was held for Izolyator partners. The chosen format for the event was unusual: Izolyator organized a plenary discussion at the Forum and then made a tour directly to the manufacturing facility of the company.

Rosseti PJSC management, representatives of power grid companies and electrical engineering plants from Russia and the CIS countries took part in the panel discussion. Roman Berdnikov, 1st Deputy General Director at Rosseti PJSC addressed the audience with the opening speech. He marked the invaluable contribution of Izolyator plant in the development of Russian and global power industry and pointed out that cooperation between Rosseti PJSC and Izolyator had been rapidly developing over the past several years. The sides signed several Memoranda on cooperation in regard to innovative projects to create new types of high-voltage bushings directed at mutually beneficial partnership with

the ultimate goal of efficient and fault free operation of domestic products on the power facilities of the Unified national electric network. In the conclusion of his speech, Roman Berdnikov also congratulated Izolyator staff with the remarkable date — the 120th anniversary since the plant foundation and wished to keep the plant's standards high by creating competitive products and making input in development of the national power grid.

Alexander Slavinsky, EngD, Chairman of the Board of Directors at Izolyator, made the key report “A century-long experience of leadership and the strategy of Izolyator”. He marked that Izolyator plant is one of the few companies that remained loyal to their proud history and traditions.

In his speech, Alexander Slavinsky spoke about cooperation with Rosseti PJSC saying that more than 250 000 Izolyator HV bushings are currently operating in the facilities of the company, including 50 000 RIP bushings. Thanks to that, Russia possesses the largest experience of mass operation of HV RIP bushings of various applica-

tions. Nikolay Drozdov, Leading Expert Innovations and Development at Rosseti PJSC made a report on HV RIP bushings operational experience in Rosseti PJSC facilities”. Nikolay Drozdov stressed the fact that Rosseti PJSC is not only the largest client of the plant, but it closely cooperates with it in order to perfect designs of high-voltage bushings, improve their quality and operational features. Presently, Rosseti PJSC has approved all bushings type for voltages ranging from 24 to 750 kV.

The panel discussion continued with the signing ceremony of the Memorandum on Cooperation between Rosseti PJSC and Izolyator. On Rosseti side, Roman Berdnikov, Board Member, 1st Deputy General Director and on Izolyator side, Alexander Slavinsky, EngD, Chairman of the Board of Directors signed the agreement.

After the plenary discussion, the partners and customers congratulated Izolyator.

After the signing ceremony, all the participants and guests of the Forum visited Izolyator plant where they were introduced to innovative designs and main stages in production of high-voltage bushings including the unique production technology of RIP bushings.



Signing of the Memorandum on cooperation between Rosseti PJSC and Izolyator



Alexander Slavinsky's speech dedicated to the 120th Anniversary of Izolyator plant

At the end of the plant tour, Izolyator presented the partners and customers with souvenirs and thank you letters for many years of cooperation and partnership.



The Public listed company Rossiiskie Seti (Rosseti PJSC) is power networks operator in Russia, one of the biggest power grids in the world. The company manages 2.3 mln km of power networks, 490 thnd substations with transformer capacity exceeding 761 GVA. In 2015 net electricity supply to consumers reached 720 bln kWh. The headcount of the group of companies is 216 000 people. The structure is made of 37 daughter companies including 14 interregional grid companies.



Participants of the jubilee event during the plant tour at Izolyator

Awarding our Partners With Thank you Letters and Corporate Presents



Interregional Distribution Grid Company of North-West



Rosseti PJSC



Ekaterinburg power grid company



Izolyator's Partners in Belarus



Izolyator's Partner in Ukraine



Izolyator's Partner in Belarus

COOPERATION DEVELOPMENT WITH THE LARGEST RUSSIAN COMPANIES

Electrical Engineering Council of Rosenergoatom Concern



ROSENERGOATOM

Rosenergoatom Concern JSC is one of the largest power generation companies in Russia, and Russia's only to function as a nuclear plant operator. Rosenergoatom has integrated active nuclear power plants, project management of nuclear plants under construction, facilities construction management, Science and Engineering Center, a science research center for NPP emergency response activities, a project design branch, and a technology branch company. The core businesses of Rosenergoatom are generation of electrical and thermal energy by its nuclear plants and their operational management as well as storage of nuclear and radioactive materials and waste management through procedures legally regulated in the Russian Federation.

Izolyator took part in a sitting of Electrical Engineering Council of Rosenergoatom Concern dedicated to the topics of power equipment reliability increase, which was held in the Moscow Region on 12-13 October 2016.

Izolyator was represented by:

- Alexander Slavinsky, Chairman of the Board of Directors, Oleg Bakulin, Director on Partner Relations, Alexander Savinov, Strategic Sales Director, Pavel Kiryukhin, Deputy Chief Designer.
- Pavel Kiryukhin made a report "New types of high-voltage bushings and their testing", which was actively discussed by the audience.

We would like to thank Rosenergoatom Concern JSC for the invitation and opportunity to join the work of the electrical engineering council!



Photo from Rosenergoatom Concern's webpage

Production Verification by Rosenergoatom Concern



Production verification by Rosenergoatom Concern's commission

During two days in November, Rosenergoatom carried out production verification of Izolyator manufacturing facility as part of high-voltage bushings production certification for class 4 safety.

Rosenergoatom commission included:

- Arcady Belousov, Lead expert, OEM dpt, commission chairperson, Evgeny Pankov, Lead expert, OEM dpt, member, Oleg Panshin, Head of electrical engineering equipment dpt at a branch.

Izolyator employees took an active part at the inspection:

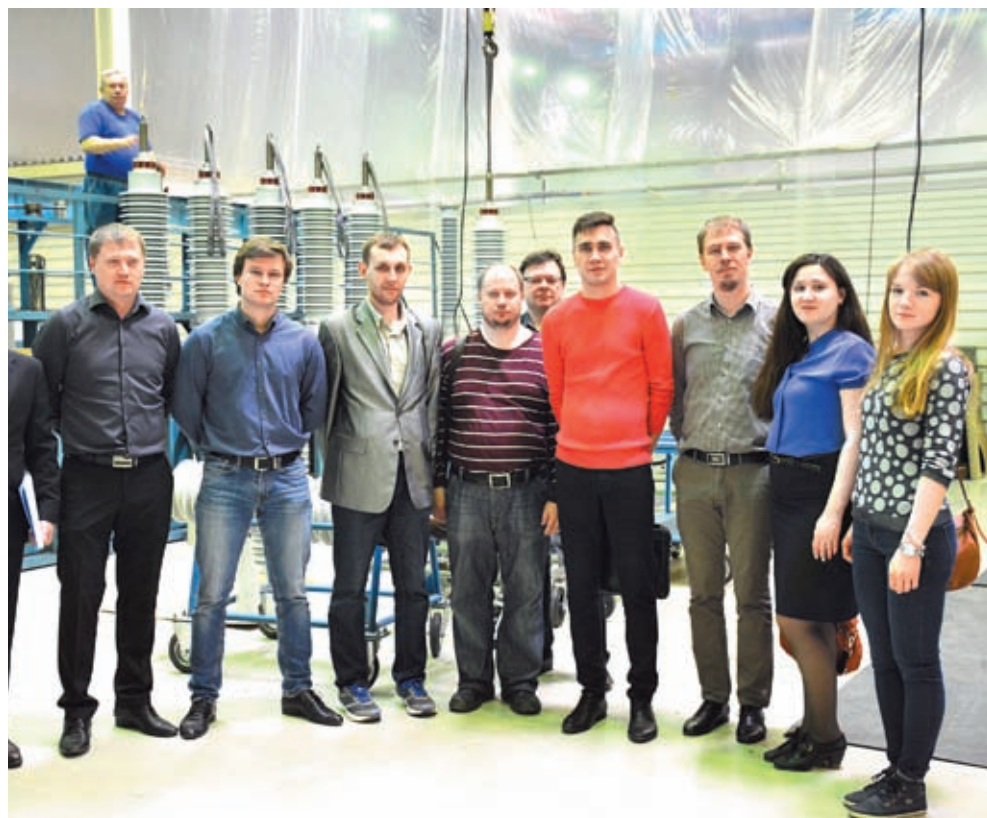
- Alexander Novikov, Quality Director;
- Vladimir Ustinov, Dpty Quality Director;
- Vladimir Romanov, Head of Procurement;
- Dmitry Ivanov, Head of Test Center;
- Svetlana Kryuchkova, Dpty Chief Process Engineer and other staff members.

The audit went successfully. All required documents were provided immediately upon request in full.

Visit of Atomenergoproekt Representatives



Atomenergoproekt JSC is a Rosatom State Corporation engineering company, general designer and general contractor under nuclear power plants erection contracts. It is more than 3000 highly-qualified professionals ensuring effective company operation as an engineering company whose domain of activity spreads not only across Russia but internationally.



Participants of the plant tour for Atomenergoproekt representatives at the assembly shop of Izolyator plant

In April 2016, representatives of Atomenergoproekt visited Izolyator plant.

Oleg Bakulin, Director on Partner Relations at Izolyator received the guests and presented the products and prospects of development of the company.

Later, during a plant tour, Pavel Kiryukhin familiarized the guests with the production and testing stages of high-voltage bushings including innovative technological solutions.

Kubanenergo Representative's Visit



Public joint stock company of power industry and electrification of Kuban (Kubanenergo PJSC) is the largest grid company of the Krasnodar region and the Republic of Adygea that transfers and distributes electricity through 110kV networks and lower. The main goal of the Company is to ensure reliable and uninterrupted power supply to all consumers in the Krasnodar region and the Republic of Adygea, as well as meet the growing demands of region's economy in electricity.

Grigory Masin, Head of Insulation Central Service visited Izolyator plant in October 2016.

Oleg Bakulin, Director on Partner Relations and Victor Kiryukhin, Head of Design Bureau received the guest.

The hosts arranged a tour to introduce the visitor the designs and modern production technologies and tests of high-voltage RIP bushings.



Grigory Masin (L) and Oleg Bakulin at the Test Center of Izolyator plant

Seminar for SIBECO and RES Specialists



Victor Kiryukhin giving seminar



Regional Electric Networks Public Company (RES JSC) operates in the Novosibirsk Region and is active in power transmission and distribution, power equipment operation in accordance with current technical standards.

Izolyator made a joint seminar for technical specialists of Siberian Energy Company and Regional Power Networks in Novosibirsk in October 2016.

Oleg Bakulin, Director on Partner Relations and Victor Kiryukhin, Head of Design Bureau represented Izolyator at the seminar.

Public listed company Siberian energy company (SIBECO JSC) is the largest company in Siberia that produces electric and thermal energy in the Novosibirskaya Region and Altaysky Krai. There are six thermal power plants in its structure. SIBECO JSC enters RU-COM group.

Victor Kiryukhin made a report "Experience of operation of Izolyator HV bushings. The specialists received detailed answers to the their questions.

We appreciate SIBECO JSC and RES JSC for their invitation and seminar organization!

Meeting at MRSK Volga



Interregional Distribution Grid Company of Volga, Public Joint-Stock Company (IDGC of Volga, PJSC) is the largest power grid operator(0,4–220 kV power lines) which serves 7 regions of the Volga Federal Districts of the Russian Federation: Saratov, Samara, Orenburg, Penza and Ulyanovsk, Republic of Mordovia, Chuvash Republic.

In November 2016, Oleg Bakulin, Director on Partner Relations at Izolyator visited the Interregional Distribution Grid Company of Volga in Saratov.

The sides held talks about further cooperation.

We would like to thank MRSK Volga for the invitation and cooperation!



MRSK Volga HQ in Saratov

Meeting at Tyumenenergo



Photo from the official website of Tyumenenergo JSC

Izolyator representatives visited Tyumenenergo JSC in Surgut.

Konstantin Sipilkin, R&D Director and Dmitry Mashinistov, Head of SVN-Service represented Izolyator at the meeting about RIP HV bushings operation.



Joint Stock Company for Energy and Electrification Tyumenenergo (Tyumenenergo JSC) is one of the largest interregional distribution grid companies in Russia. Date of establishment — May 3, 1979. In operation since 2005 as an interregional network company. The service area of JSC Tyumenenergo is more than 1.4 million square kilometers and includes the Tyumen region, the Khanty-Mansiisk Autonomous Area — Ugra and Yamal-Nenets Autonomous Region with a population of about 3.5 million people.

We would like to thank Tyumenenergo JSC for the invitation and cooperation!

RusHydro Supplier Day



RusHydro supplier day



The Public listed company Federal Hydrogeneration Company RusHydro Group is one of the largest energy holdings in Russia. RusHydro is a leader in energy production from renewable sources of energy developing power generation on the energy of water streams, sea tides, wind and geothermal energy.

Izolyator participated at RusHydro supplier day in Moscow organized on 28 October 2016.

The purpose of the conference was to familiarize the market players with RusHydro procurement system, requirements to suppliers, prospects of procurement in the new conditions in order to achieve a higher efficiency of supplier – customer interaction.

In the plenary part of the conference RusHydro Group management representatives spoke about the state policy in RusHydro purchasing regulation, the company's participation in Far

East development projects, system of purchasing and supply chain, requirements to purchased products in frame of the technical policy, innovative products procurement, support of small and mid-size businesses, typical mistakes at tender procedures, etc.

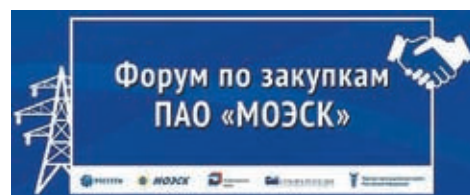
Representatives of the Ministry of Energy of the Russian Federation, the Ministry on Development of the Far East of the Russian Federation, Federal Anti-Monopoly Service and Federal Corporation on Small and Mid-size Businesses Development took part in the event.

In the conclusion of the conference, there was an open dialog with representatives of RusHydro Group suppliers.

Oleg Bakulin, Director on Partner Relations at Izolyator represented the company at the conference.

We wish to thank RusHydro PJSC for their invitation and the conference organization at the high level!

MOESK Purchasing Forum



Izolyator took part in the first MOESK Purchasing Forum on 8 December 2016.



Moscow United Electric Grid Company (PJSC "MOESK") is one of the largest distribution electric grid companies of Russia. Main activity types — services of electric power transmission and grid connection of consumers to electric networks on the territory of Moscow and Moscow region.

Purchasing Forum is not only a new discussion platform for suppliers and contractors, but also an efficient instrument for feedback collection from participants of procurement procedures.

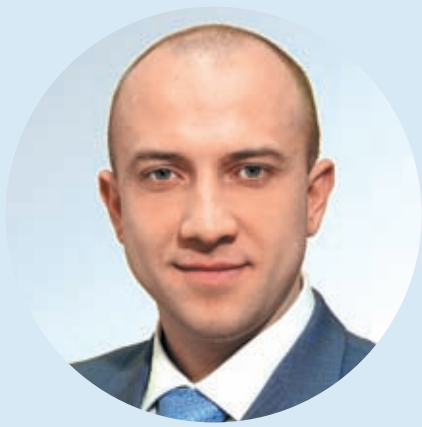
The Forum's agenda consisted of two main parts: discussion and seminar. Power Partner to MOESK 2016 awarding ceremony was also a memorable part of the forum.



The first annual Purchasing Forum of MOESK PJSC

Experts from Chamber and Commerce Industry of Russian Federation, Opora Rossii All-Russian NGO, MSP Corporation, B2B-Center, Rosseti PJSC took part in the forum. Oleg Bakulin, Director on Partner Relations represented Izolyator at the forum.

We would like to thank MOESK PJSC for invitation and forum organization at the highest level!

**ALEXANDER SAVINOV**

*Strategic Business
Development Director*

Izolyator is a recognized expert in operation of high-voltage equipment. The status imposes some obligations with the most important one being a flawless fulfilment of our obligations in all our activities.

First and foremost, it concerns our products. There is a direct connection with the power supply security at times depending on how promptly we organize production and delivery of equipment. In 2016 all our deliveries to the generating companies, FGC UES and other customers were made just-in-time.

I should say that in the past year we also fulfilled our obligations for our partners in supervision consulting of 330-750 kV bushings installation free of charge.

Unstopping perfection of our equipment and technologies require our clients' staff to be timely trained. This is a large activity. We are in a regular contact with our partners discussing technical issues, meeting and talking on various aspects of cooperation in person. Seminars for specialists of technical services of generating and distribution companies are a regular practice.

We tell about the principles and standards of our work demonstrating them e.g. at the acceptance tests of 500 kV HV bushings carried out jointly with Mosenergo PJSC specialists. Our partners from the Finnish Fortum JSC were able to see our company potential and level of communication at the visit to Izolyator's manufacturing facility and having bought bushings for 110 kV, 220 kV and 500 kV voltages.

Izolyator's accreditation as an official supplier to Germany's Unipro PJSC became another meaningful achievement of the year. The past year proved that Izolyator is a reliable partner trusted not only in Russia but also internationally.

On our side, we wish our partners to have an ascending trend in the obsolete equipment replacement by modern and highly technological domestic products. As it will ultimately allow to develop our country's economy through a better power grid operation.

Izolyator is prepared to provide you with an all-round support, long term relations and lend our shoulder as a domestic manufacturer, so you could accomplish your plans!

RUSSIA'S GENERATION IS OUR PRIORITY

Viit to Fortum JSC



Fortum JSC is a leading producer of thermal and electric energy in Ural and West Siberia. The company structure includes eight TPPs, five of which are in Chelyabinsk Region, three — in Tyumen Region with Nyagan SDPP being one the biggest modern thermal power plants in Russia. The Russian division of Fortum corporation consists of Fortum JSC and a 29.5% stake in TGC-1.

Alexander Savinov, Strategic Business Development Director at Izolyator visited Fortum JSC in December 2016.

The partners discussed successful results of cooperation in 2016 and cooperation development plans for the next year.

We wish to thank Fortum JSC for their invitation and a fruitful cooperation!



Modernized Chelyabinskaya SDPP (photo from official website of Fortum JSC)

Talks at Unipro PJSC



Director of Shaturskaya SDPP, branch of Unipro PJSC Sergey Bakurin (L) during his visit to Izolyator plant in August 2016. On the right: Alexander Savinov



Unipro PJSC (E.ON Russia JSC until June 2016) is a company of the thermal power generation sector in the Russian Federation. Unipro PJSC consists of five heat power plants. The company's core operations comprise electric power and capacity generation and sales. Unipro PJSC is operating at the Russian market of distributed generation and engineering as well. Uniper SE, the major shareholder of Unipro, is a leader in the traditional power generation sector.

Alexander Savinov, Strategic Business Development Director at Izolyator visited Unipro PJSC at the end of 2016.

At the meeting the sides summarized results of cooperation in 2016 and spoke about plans of further cooperation in the next year.

We wish to thank Unipro PJSC for the invitation and efficient cooperation!

Meeting at CHPP-20



CHPP-20 is a central heating power plant located in the South-Western District on the territory of Akademichesky district of Moscow. It supplies electric power and heat to a number of municipal areas of the city. It is a part of Mosenergo PJSC.

Alexander Savinov, Strategic Business Development Director at Izolyator visited CHPP-20 in Moscow in October 2016.

Vladimir Makhotenko, Deputy Head Electrical Service received the guest.

During the meeting the sides established business contact. The visitor introduced innovative products of Izolyator emphasizing replacement opportunities of obsolete bushings with RIP bushings and their installation subtleties.

We would like to thank CHPP-20 for their invitation and a productive dialog!



Alexander Savinov at CHPP-20

Summarizing Results at Samara Branch of T Plus Group



The branch of T Plus Group in Samara combines generating and thermal assets in four cities of the Samara Region: Samara, Novokuibyshevsk, Syzran and Togliatti. There are seven CHPPs and SDPPs entering the branch's structure: Samarskaya CHPP, Bezymyanskaya CHPP, Togliattinskaya CHPP, Volga Automotive Plant CHPP, Syzranskaya CHPP and three territorial heat supply offices in Samara Togliatti and Novokuibyshevsk.

Alexander Savinov, Strategic Business Development Director at Izolyator visited the Samara branch of T Plus Group.

The sides summarized results of their successful cooperation in 2016 and spoke about volumes of future Izolyator HV bushings deliveries.

We would like to thank the T Plus Group branch in Samara for their invitation and beneficial cooperation!



Alexander Savinov at the branch of T Plus Group in Samara

Cooperation Plans With Siberian Generating Company



Alexander Savinov at the HQ of Siberian Generating Company



Sibirskaya Generating Company Ltd. SGC Ltd is one of the leading power holdings in Russia. It is a united complex of electric and thermal power production, transportation and sales. The company supplies heat to three million consumers in five regions of Russia. Every fifth kilowatt-hour consumed in Siberia was generated at the holding's power plants. The key activity of the company is production of electric and thermal power.

Alexander Savinov, Strategic Business Development Director at Izolyator visited the Siberian Generating Company at the end of the year.

During the meeting, the sides summarized results of successful cooperation in 2016, discussed prospects and outlined cooperation development plans in the coming year.

We would like to thank SGC Ltd for the invitation and fruitful cooperation!

Seminars at BGC



Izolyator seminar at BGC



Bashkir Generation Company Ltd (BGC Ltd) is a major regional electric power generator in Russia, and a member of Inter RAO Group. BGC Ltd manages power generation assets in the Republic of Bashkortostan and coordinates Bashkir Heat Distribution System LLC, PGU TPP-5 LLC and several service subsidiaries. Its core business is generation of electric power and heat. BGC Ltd operates 19 large and small power plants across Bashkortostan.

Izolyator held seminars for technical specialists of Bashkir Generating Company in October 2016.

Alexander Savinov, Strategic Business Development Director and Yury Nikitin, Chief Designer represented Izolyator.

The technical seminars for chief engineers and chiefs of electrical shops at BGC branches became a part of technical specialists training program that was organized in Energetik professional training center.

At the seminars, the specialists received exhaustive reply to their questions about the design, installation and operation of HV RIP bushings made by Izolyator.

We appreciate BGC Ltd for the invitation and seminars organization at the high level!



Participants of the meeting at BGC



Attendees of Izolyator's seminar at BGC

MAIN POWER TRANSMISSION LINE OF EAST

Visit to MES East



Alexander Savinov by the HQ of MES East



Main Power Transmission Lines of East (MES East) are a branch of FSK UES JSC operating in the Far-Eastern Federal District. There are five federal subjects with a population exceeding 5 million people in its service area. MES East ensures a fault free operation of more than 15.5 thousand km of power lines and 89 substations of 220-500 kV voltage classes with total installed capacity over 14 774 MVA. The branch provides electric connection between the unified power grid of the East and the power grid of Siberia, and export of power to China.

Alexander Savinov, Strategic Business Development Director at Izolyator visited the Main Power Transmission Lines of East.

Ruslan Ashirov, Dty Chief Engineer at MES East received the visitor. There was a meeting with representatives of Substation Operation and Diagnostics department.

The sides discussed issues of present interest and further cooperation prospects reaching agreement on a return visit to Izolyator plant.

We would like to thank MES East for the invitation and an efficient cooperation!

Talks at MES Volga



Main Power Transmission Lines of Volga (MES Volga) is a branch of FGC UES PJSC operating on the territory of the Mid Volga region of the Nizhny Novgorod Region. There are 8 subjects of the Russian Federation entering the service area with a total population of 17 mln people. MES Volga ensures fault-free operation of 12.1 thnd km of power lines and 87 substations with a total transformer capacity of 32.3 MVA. The branch ensures electric connection of UES Volga and the power systems of Central Russia and Urals.

Alexander Savinov, Strategic Business Development Director at Izolyator visited Main Power Transmission Lines (MES) of Volga at the end of 2016.

Sergey Abalin, Chief Engineer at MES Volga received the guest. The parties summarized results of their successful cooperation in 2016 and talked about prospects and development plans on a long term basis.

We would like to thank MES Volga for the invitation and fruitful cooperation!



Alexander Savinov by the HQ of MES Volga

MES Siberia and MES East Representatives' Visit



Main Power Transmission Lines (MES) of Siberia is FG UES JSC's branch that operates on the territory of the Siberian Federal District. The service area of the company includes ten federal subjects of the Russian Federation with a total population of 19.3 mln people. MES Siberia ensures uninterrupted operation of 433 power lines with ETL length of 22804.6 km (29194.4 km by circuits) and 118 substations with total transformer capacity of 50462.2 MVA.

Representatives of MES Siberia and MES East visited Izolyator plant in December.

MES Siberia was represented by Yury Konev, Head of Diagnostics, Substation Insulation and Diagnostics, MES East — by Egor Novoselov, Lead Engineer, Substation Operation and Diagnostics Dept.

Alexander Savinov, Strategic Business Development Director and Dmitry Mashinistov, Head of SVN-Service received the guests.

The hosts arranged for a plant tour introducing the guests to designs and modern technologies of HV RIP bushings manufacture and testing.



At the assembly shop at Izolyator, L-R: Alexander Savinov, Egor Novoselov, Yury Konev and Dmitry Mashinistov.

Seminars at FEGC



Alexander Savinov at the Far-Eastern Generation Company



Far-Eastern Generation Company (FEGC JSC) is a branch of Far-Eastern Energy Company JSC entering RAO Energy Systems of the East holding.

Izolyator ran several seminars for technical specialists of Far-Eastern Generation Company (FEGC) branches.

The seminars were held at Khabarovskaya-1 CHPP and Khabarovskaya-3 CHPP, branches of

Khabarovskaya Generation, FEGC JSC subsidiary, and Primorskaya GRES, branch of Luchegorsky fuel and energy complex, FEGC JSC subsidiary.

Alexander Savinov, Strategic Business Development Director represented Izolyator at the seminars.

The seminars went with active discussions of HV RIP bushings advantages, their design features and operation features. The specialists received detailed answers on all topics of interest.

We would like to thank FEGC JSC for their invitation and seminars organization at the high level!



Alexander Savinov at Primorskaya SDPP

1150 kV Bushing Tests

1150 kV bushings made for MES Siberia successfully passed electrical tests in presence of a MES Siberia representative.

The GMT-20-1150/1150/1250 2 ShTs.800.119 bushing is designed for installation in transformers. The largest operating voltage at 50 Hz is 1200 kV, nominal current — 1250 A.

Sergey Timashev, Chief Expert, Main Equipment Operations, Substations at FSK UES JSC was present at the tests.

On Izolyator side, the guest was received by:

- Alexander Savinov, Strategic Business Development Director;
- Dmitry Mashinistov, Head of SVN-Service;
- Victor Kiryukhin, Head of Design Bureau.
- Dmitry Ivanov, Head of Test Center managed the tests. Alexander Novikov, Quality Director



1150 kV bushing tests at Izolyator



Main Power Transmission Lines of Siberia (MES of Siberia) is FGC UES PJSC branch that operates on the territory of the Siberian Federal District. The service area of the company includes ten federal subjects of the Russian Federation with a total population of 19.3 mln people. MES Siberia ensures uninterrupted operation of 433 power lines with ETL length of 22804.6 km (29194.4 km by circuits) and 118 substations with total transformer capacity of 50462.2 MVA. The branch ensures interstate cross-flows of power with neighboring Kazakhstan and Mongolia. There are 5 power transmission subsidiaries in the company structure.

also took part at the testing.

The tests were successful. In addition to the tests agenda, Sergey Timashev familiarized himself with the product range and equipment of Izolyator plant.

Mosenergo: Inspection of Izolyator Bushings Tests



At the Test Center of Izolyator plant (L-R): Victor Kiryukhin, Alexander Savinov, Andrey Snetkov, Nikolay Shavlikov and Daniil Galimov



Mosenergo is currently the largest territorial generating company in Russia and one of the largest heat producers in the world. The power plants of Mosenergo have installed electricity capacity of 13 GW. Mosenergo power plants supply more than 60% of electric energy consumed in Moscow region and about 70 % of heat in Moscow (excluding annexed territories).

Acceptance tests of HV bushings GKT-60-550/2000 IVUE.686355.172 were executed at Izolyator plant.

To oversee the tests, Mosenergo JSC representatives arrived at the plant:

- Andrey Snetkov, Chief Specialist of Power Equipment Service,
- Nikolay Shavlikov, Chief Specialist of Power Equipment Service,
- Daniil Galimov, Chief Specialist TPP-26.

The visitors were received and attended by: Alexander Savinov, Strategic Business Development Director,

- Victor Kiryukhin, Head of Design Bureau.

All bushings tests were successful.

Upon completion of the tests Izolyator colleagues arranged a tour of the plant familiarizing the guests with HV bushings design solutions and main manufacturing stages at Izolyator plant, and the plant development prospects.

Severo-Zapadnaya TPP: Discussing Operational Experience

Alexander Savinov, Strategic Business Development Director at Izolyator paid a working visit to the North-Western TPP.

During the meeting, Izolyator representative discussed Izolyator 330 kV bushings operation issues with the TPP management and specialists. Izolyator delivered them in 2012.



Severo-Zapadnaya TPP is the first next-generation power plant in Russia relying binary steam-gas cycle-a cost-saving and environmentally friendly electricity and heat production technology. It is one of the most advanced power plants in Russia and Europe. The station provides heat to Primorsky District of St. Petersburg and is connected to energy systems of Russia and Finland.



Meeting at the North-Western TPP

MES North West: Scheduled Visit

Alexander Savinov, Strategic Business Development Director at Izolyator held talks with the management of Main Power Transmission Lines North West.

In the framework of the scheduled visit, the sides discussed the high-voltage bushings' operation on power facilities of MES North West that were supplied in 2015 and new Izolyator bushings supplies in 2016.



Main Power Transmission Lines of Siberia (MES of Siberia) is FGC UES PJSC branch that operates on the territory of the Siberian Federal District. The service area of the company includes ten federal subjects of the Russian Federation with a total population of 19.3 mln people. MES Siberia ensures uninterrupted operation of 433 power lines with ETL length of 22804.6 km (29194.4 km by circuits) and 118 substations with total transformer capacity of 50462.2 MVA. The branch ensures interstate cross-flows of power with neighboring Kazakhstan and Mongolia. There are 5 power transmission subsidiaries in the company structure.



MES North West Headquarter

**MAXIM ZAGREBIN***Head of OEM Sales*

Izolyator works to furnish our power equipment OEMs with the most reliable equipment of the best quality. In 2016 we made several large deliveries to our Russian and foreign partners doing our best to meet delivery terms.

A good example of an efficient cooperation is our relations with a strategic partner Togliatti Transformer Ltd. Together we accomplished several projects in Russian Federation and the CIS countries. In 2016 Izolyator HV bushings of 24 to 500 kV voltages were supplied to Russia and the neighboring countries.

We keep activities with Power Machines — Toshiba. High-voltage transformers made by this plant were equipped with 500 kV bushings of Izolyator brand. We also continued cooperation with our old partner SverdlovElectro Group JSC in Ekaterinburg. In 2016 Izolyator made the first delivery of 330 kV bushings.

Speaking about our projects in 2016, it is necessary to mention Izolyator bushings delivery to Kazakhstan through Electrozavod holding JSC and a delivery of bushings of ultra-high-voltage type for the needs of the power industry of the Crimea. We signed a contract with Zaporozhtransformer PJSC for delivery of bushings for the Belarusian NPP. It is important that our cooperation never ends with the delivery. We are pleased to provide seminars for both design and commercial divisions of OEMs. We spent the 2016 by actively communicating with the specialists of Power Machines — Toshiba. High-voltage transformers Ltd, SVEL Group JSC, Togliatti transformer Ltd and Uralelectrotyazhmash plant.

We hope that the 2017 will be yet more productive and on our side we would render our partners an all-round support on all cooperation stages.

RUSSIAN TRANSFORMER PLANTS

Technical Seminar at Togliatti Transformer



Togliatti Transformer Limited is one of the largest designers and makers of electric engineering equipment in Russia and the CIS countries. As of today, the company's main business is high-voltage power transformers production. Togliatti Transformer products are operating in power plants, regional and federal power networks, in power systems of enterprises, ferrous and non-ferrous metallurgy, rail transport, agriculture and other industries of Russia and the CIS countries. Equipment under TT trademark is operating in more than 50 countries of the world, including Eastern and Western Europe.

Izolyator gave a seminar for the staff of design bureau of Togliatti Transformer Ltd.

Izolyator was represented by:

- Maxim Zagrebina, Head of OEM Sales;
- Yury Nikitin, Chief Designer.

The attendees considered the design features of HV RIP bushings and studied possibilities of design and manufacture of custom-made bushings, issues relating to technical service of the equipment in operation.

*Yury Nikitin giving a seminar at Togliatti Transformer*

The partners also went in business talks concerning joint activities planning and details of delivery scope and supply schedule of high-voltage bushings.

We appreciate Togliatti Transformer Ltd for the invitation and seminar organization!

Seminar and Business Meeting at SVEL Group



SverdlovElectro Group (SVEL Group JSC) is a leading power equipment manufacturer in Russia. The company boasts one of the impressive growth modernization rates in the industry. SVEL Group's cooperation with the key Russian enterprises allows for an efficient realization of the government import substitution program.

Izolyator held a seminar for technical specialists of SverdlovElectro Group in Ekaterinburg.

The seminar organizers:

- Maxim Zagrebina, Head of OEM Sales at Izolyator,
- Victor Kuryukhin, Head of design bureau at Izolyator.

The seminar program included information on the history of Izolyator plant, key achievements, sales geography, types and designs of HV bushings, product development and production stages, testing, research and development, key suppliers of completing parts and materials, technical maintenance of equipment at warranty and

*Business meeting at SVEL Group (L-R): Maxim Zagrebina, Denis Goryev and Victor Kuryukhin*

post-warranty periods. SVEL Group specialists received detailed answers to their questions at the seminar.

Besides, Denis Goryev, Chief Designer 500 kV received Izolyator representatives and discussed

volumes of future shipments of high-voltage bushings and pending issues on a more efficient coordination.

We appreciate SVEL Group CJSC for their invitation and the seminar organization!

*Izolyator seminar at SVEL Group*

Training Uralelectrotyazhmash Specialists



Uralelectrotyazhmash JSC (UETM) is the biggest Russian developer and producer of electric power equipment for generation, transmission, distribution and consumption of energy. High-voltage equipment, transformers and reactors, converter equipment and electric machines of UETM brand are world known and enjoy a good reputation. Uralelectrotyazhmash is a diversified electrical engineering company producing more than 2000 product items for 3000 customers in Russia and abroad.

Izolyator gave a technical seminar for technical specialists of Uralelectrotyazhmash in Ekaterinburg.

- Izolyator was represented by:
- Maxim Zagreb, Head of OEM Sales,
 - Victor Kiryukhin, Head of Design Bureau.

The topic of the seminar raised a strong interest and the specialists were able to receive exhaustive advice on a wide range of issues from the first hand. At the end of the seminar, all the participants received certificates from Izolyator company.

Apart from the seminar, the partners had a business meeting with the following Uralelectrotyazhmash colleagues joining:



Victor Kiryukhin giving a seminar



Maxim Zagreb giving certificates to the seminar listeners

- Pavel Patrushev, Procurement Director;
 - Leonid Meshavkin, Head of Purchasing for Transformer Production;
 - Stanislav Zverev, Lead Specialist.
- The topics included several commercial issues,

cooperation plans in the near and distant perspective.

We would like to thank Uralelectrotyazhmash JSC for their invitation and seminar organization!

Talks at Power machines — Toshiba. High-voltage transformers



Maxim Zagreb and Denis Morozov, in the background — production facilities of Power Machines — Toshiba. High-Voltage Transformers



Power Machines — Toshiba. High-voltage transformers Ltd is a joint venture of Power Machines JSC and Toshiba Corporation. The project started in September 2011 with signing of a JV set up agreement and construction of power transformers manufacturing facility in Russia. 50.01% share of the JV's capital is owned by Power Machines and 49.99% share belongs to Toshiba corporation.

Maxim Zagreb, Head of OEM Sales visited Power Machines — Toshiba. High-Voltage Transformers Ltd.

The guest was received by:

- Konstantin Stafeev, Director on Development and Corporate Affairs;
- Denis Morozov, Head of Procurement;
- Andrey Sidelnikov, Chief Designer;
- Alexander Yuzhakov, Deputy Chief Designer;
- Alexander Smirnov, Lead Design Engineer.

The partners summarized results of successful cooperation in 2016 and discussed progress of existing joint progress together with cooperation development in 2017.

We would like to thank Power Machines — Toshiba. High-Voltage Transformers Ltd for the invitation and productive cooperation!



Konstantin Stafeev (L) and Maxim Zagreb at Power Machines – Toshiba. High-Voltage Transformers plant

Power machines — Toshiba. High-voltage transformers Anniversary

On 23 December 2016, Izolyator took part in the 5th Anniversary celebration of Power Machines — Toshiba. High-voltage transformers Ltd.

Alexander Slavinsky, Chairman of the Board of Directors and Maxim Zagreb, Head of OEM sales at Izolyator congratulated the heroes of the anniversary with the remarkable date mentioning

the successful cooperation that the two companies enjoyed as well as the strategic importance given by Izolyator to development of partnership with Power Machines — Toshiba. High-voltage transformers Ltd.

We appreciate Power Machines — Toshiba. High-voltage transformers Ltd for the honor to take part in the celebration!



The General Director of Rosseti PJSC Oleg Budargin is congratulating the heroes of the Anniversary



Maxim Zagreb (R) at the jubilee celebration

Delivery of Bushings to Siemens Transformers Ltd

Izolyator delivered batch of RIP bushings for 24 and 35 kV voltages to Siemens Transformers Ltd in 2016.

SIEMENS

Siemens Transformers Ltd (Voronezh, Russia) is a 100% owned company of Siemens in Russia. Siemens Transformers Ltd plant project, its technology and equipment came as result of the long term experience in more than 20 transformer plants run by Siemens all over the world, including Germany and Austria. Siemens Transformers Ltd makes, sells and services power transformers and autotransformers of up to 250 MVA capacity and up to 330 kV voltage.



Siemens transformers Ltd plant (photo by EvgeniyaS)

Meeting at Power Standard Ltd



Alexander Gumenyuk (L) and Maxim Zagrebin at Power Standard Ltd



Power Standard Ltd is a dynamically developing company that promotes products of the largest CIS plants on the Russian market. At present, the company offers a wide range of equipment for oil, gas, chemical, ferrous and nonferrous metallurgy, rail transport and mining industries. The key business of the company is promotion of equipment for power companies of Russia.

Maxim Zagrebin, Head of OEM Sales visited Power Standard Ltd.

The guest was received by Alexander Gumenyuk, Deputy General Director.

The partners summarized results of cooperation in 2016. They outlined cooperation development in 2017 discussing joint projects in Russia and the CIS countries.

We would like to thank Power Standard Ltd for the invitation and active cooperation!

Cooperation Talks at Electrozavod JSC



Manufacturing complex of Elektroavod JSC is specialized in design and manufacture of transformer and reactor equipment which is traditional for the plant and has been manufactured for 80 years, for power utilities, industry and transport. Electroavod brand equipment enjoys a steady demand. A modernized manufacturing facility allows for making a high quality modern power equipment demanded by domestic and foreign consumers.

Maxim Zagrebin, Head of OEM Sales at Izolyator visited the production facility of Electroavod JSC in Moscow.

The visitor was received by:

- Alexander Andrianov, General Director;
- Andrey Buzenkov, Deputy Logistics and Supply Chain Director;
- Nikita Suldin, Deputy General Director on Technical Policy.

The partners summarized results of successful cooperation in Russia and the CIS countries in 2016. They discussed technical issues of high-voltage and ultra-high-voltage Izolyator bushings delivery. The talks ended in cooperation 2017 plans shaping out.

We wish to thank Electroavod JSC for the invitation and efficient cooperation!



Industrial facilities of Electroavod JSC in Moscow (photo from official website of Electroavod)

Talks at Ufa Transformer Plant



Ufa Transformer Plant is a modern enterprise with specialization in development and production of power and distribution transformers. The plant was built by Electroavod JSC in 2009 and today is the largest power equipment building facility in Russia. Ufa Transformer Plant makes a broad range of power transformers of up to 500 kV voltages and up to 267 MVA.

Maxim Zagrebin, Head of OEM Sales at Izolyator visited Ufa Transformer plant.

The guest was received by:

- Yury Vertyakov, Director;



Maxim Zagrebin (L) at Ufa Transformer plant

- Oleg Kuklin, Head of External Cooperation and Procurement;
- Evgeny Romanov, Deputy Head of External Cooperation and Procurement;
- Artur Valeev, Chief Designer.

The sides summarized cooperation in 2016 having marked its successful results. Over the talks they also covered technical issues connected with design features and advantages of RIP bushings application. The partners gave special attention to planning cooperation in the coming year.

We would like to thank Ufa Transformer plant for the invitation and active cooperation!

Instruction Film About Izolyator Bushings Installation

Izolyator has produced a video instruction for partners and customers "Installation of high-voltage RIP bushings made by Izolyator".

In the video, bottom terminal and draw-lead type HV bushings installation processes are detailed on the example of a 500 kV bottom terminal bushing and a 220 kV draw-lead type transformer bushing installation.

The high-voltage bushing is an important transformer component that ensures its reliable, fault-free and durable operation.

Izolyator has successfully developed RIP bushings of up to 800 kV voltages for fifteen years. Mass use of RIP bushings in Russia and power industry of other countries shows that the most important stage for a sound bushing operation is its installation in a transformer.

Due to RIP insulation design features this operation has substantial differences from analogues and requires careful study and full compliance with the manufacturer's instructions.

In the video, bushings with oil filled porcelain external insulation are used as demonstration example. Bushings with other types of external insulation are installed similarly.

Correct installation and measurements provide a solid basis for a bushing's fault-free operation over many years. That is why it is important to pay your special attention to following the instructions detailed in this video.

The film is available for viewing on Izolyator page on YouTube following the link on Izolyator corporate website.



A frame from the film about Izolyator bushings installation

Visit of ASU-VEI Representatives



Talks of Izolyator and ASU-VEI representatives



The key activity of ASU VEI Ltd is power plants and networks equipment performance assurance by carrying out research and experimental design works, production and implementation of micro-processor systems for automatic control, control, protection and diagnostics for electrical equipment. The company also creates digital models of power facilities and develops technological software. The scientific and research activities of ASU VEI resulted in innovations in the field of high-voltage equipment reliability applied throughout the unified energy system of Russia.

In October 2016, representatives of ASU-VEI visited Izolyator plant.

ASU-VEI representatives:

- Alexander Zhukov, Deputy General Director
- Alexander Krayachich, Head of Department
- Mikhail Subbotkin, Lead Designer.

The visitors were received by:

- Dmitry Mashinistov, Head of SVN Service
- Pavel Kiryukhin, Deputy Chief Designer
- Vladimir Romanov, Head of Procurement department.

The sides had talks on prospective directions of cooperation regarding technical innovations implementation. For instance, the partners reached agreement on joint tests of a device for diagnostic means connection to high-voltage bushing under operating voltage, which was developed by ASU-VEI.

Tests of the Connecting Device for Diagnostic Equipment

A series of tests of the connecting device for connection of diagnostic equipment to an HV bushing under working voltage successfully went at Izolyator plant.

Connecting device UPO2 is a specialized contact device designed for delivering measuring tap leakage current to an external measuring device, also for grounding leakage current and built-in protection of the measuring tap of the high-voltage bushing in case of sudden disconnection fault after UPO and high-voltage pulse surges happening at lightning and switching loads. It can be applied with various systems of diagnostics.

The tests were made on a 420 kV bushing in

the measuring circuit disconnection fault mode of the measuring tap of the high-voltage bushing and in the volume of complete acceptance tests – one minute test voltage, full and chopped lightning impulse, switching impulses, prolonged subjection to alternating current.

Alexander Krayachich, ASU-VEI Ltd representative arrived at Izolyator for the tests.

Dmitry Ivanov, Head of Test Center managed the tests. Vladimir Ustinov, Deputy Quality Director and Pavel Kiryukhin, Deputy Chief Designer also took an active part at the tests.

The tests fully confirmed specifications stated for the device.



At the test center at Izolyator, L-R: Pavel Kiryukhin, Alexander Krayachich, Dmitry Ivanov and Vladimir Ustinov

**DMITRY ABBAKUMOV**

*Deputy Commercial Director
at Izolyator*

The 2016th can hardly be called easy for the whole world, so it is indeed valuable for us that all our suppliers in spite of the complex economic and political situation in the world and in Russia we able to keep promises. I would like to thank all suppliers of Izolyator for timely deliveries of materials and components. It's also important to mention that all our agreed supplies were carried out with optimal prices inspite of complexities with payments between the companies.

We are glad that our partners and us always find a common language in pursuit of our common goal — provision of the production with necessary components in time. Izolyator is always open to dialog and is pleased to receive guests. We value personal contacts and are happy to hear from our partners about their intention to keep our business relations in the new year.

Addressing our partners, I would like to mark that the past year showed how efficient and coordinated can be the work of interested partners. Our interaction was productive and of course hope to continue cooperation in future. On behalf of the company and myself, I wish you to stay on you path of confident development, enrich what you have achieved, find and retain for your team the most qualified people and remember those whom you chose your path of success with at the very beginning. I wish you luck and prosperity!

RELIABLE SUPPLIERS ARE THE BASIS OF OUR PRODUCTS QUALITY!

General Director of Uralizolyator Visited Izolyator



Kamyshlov Plant Uralizolyator Ltd enters the financial and industrial holding Yava and is one of the largest Russian manufacturers of electric porcelain.

In 16 March, Alexey Tumakov, General Director at Kamyshlov plant Uralizolyator Ltd visited Izolyator plant.

On Izolyator side, the guest was received by:

- Alexander Slavinsky, Chairman of the Board of Directors;
- Dmitry Abbakumov, Deputy Commercial Director;
- Vladimir Romanov, Head of Purchasing.

The hosts arranged for a plant tour. The sides discussed production and commercial issues of cooperation, setting joint objectives and 2016 agreeing to develop their traditional and successful cooperation further.



At the Test Center of Izolyator plant (L-R) Dmitry Abbakumov, Alexey Tumakov and Vladimir Romanov

Talks With Elektroporcelán a. s. Representatives



Elektroporcelán a.s. is an important European manufacturer of ceramic insulators and ceramic products. Thanks to a high level of its products it is winning considerable share in the demanding markets of Europe, Australia and North America. The company makes products which comply with the Czech and foreign standards, and delivers custom made products developed according to individual requirements. Elektroporcelán's plant in Merklin makes up to 500 kV insulators with maximum construction length of 5,000 mm.

In November 2016, Elektroporcelán a.s. representatives — Irzi Blaga, Commercial Director, Josef Popelka, Technical Director, Anna Trubetskaya, Sales Manager — visited Izolyator.

The guests were received by:

- Alexander Novikov, Quality Director,
- Dmitry Abbakumov, Deputy Commercial Director,
- Dmitry Ivanov, Head of Test Center,
- Ekaterina Kupkina, Lead Porcelain Specialist.

The sides summarized successful results of the 2016 cooperation and outline 2017 prospects expressing shared opinion to continue business relations that have become traditional. Besides, the hosts arranged for a plant tour for the visitors made so they were able to see the company operates.



At the assembly shop of Izolyator, L-R: Irzi Blaga, Josef Popelka, Ekaterina Kupkina, Anna Trubetskaya and Dmitry Abbakumov

A Plant Tour for Wieland Group Representatives

Wieland

The Wieland Group is today one of the world's leading specialists for copper and copper alloys. The company makes copper tubes, sheets, rods, ribbed tubes and heat exchangers. The main office of the group is in Germany.



Visit to insulation making shop during a plant tour at Izolyator, L-R: Roman Jakobi, Georgy Kaunov, Michaela Rupp, Dmitry Abbakumov and Vladimir Romanov

In August 2016, representatives of Wieland Group companies visited Izolyator plant:

- Michaela Rupp, Sales Manager at Wieland-Werke AG;
- Roman Jakobi, Process Engineer at Wieland-Werke AG;
- Georgy Kaunov, General Director at Wieland Metals Rus Ltd.

The plant representatives who welcomed the guests:

- Alexander Slavinsky, Chairman of the Board of Directors;
- Dmitry Abbakumov, Deputy Commercial Director;
- Vladimir Romanov, Head of Procurement.

The hosts arranged for a plant tour introducing the guests to the modern technologies of high-voltage RIP bushings production. The sides held talks on further cooperation.

Meeting at RTI



RTI Limited is specialized in mechanical rubber products manufacture for main and auxiliary production of power industry enterprises as well as more than 1000 molded articles for general industry of various types and sizes. The company cooperates with power equipment OEMs. The products are delivered to virtually all power systems of Russia and the CIS countries.

Izolyator representatives visited RTI manufacturing company in Novosibirsk.

Oleg Bakulin, Director on Partner Relations and Victor Kiryukhin, Head of Design Bureau represented Izolyator.

They were received by Alexey Sotnikov, RTI Ltd Director.

RTI supplies rubber sealing ring used in Izolyator high-voltage bushings' design. The sides discussed required range and technical features of RTI products expressing shared intention to develop cooperation.

We would like to thank RTI Ltd for the invitation and fruitful cooperation!



Alexey Sotnikov (L) and Victor Kiryukhin meeting at RTI

Talks at MR



In front of the HQ, L-R: Pavel Kiryukhin, Kinga Kastenberger and Konstantin Sipilkin



Maschinenfabrik Reinhausen GmbH (MR) is a leading company within the Reinhausen Group. It has designed and manufactured insulation tubes from glassfiber reinforced polymers for more than 30 years. Based on this know-how and experience, it was a logical step to expand the business field insulation material and offer hollow composite insulators in MR-quality to the market. Under the brand name ReCoTec® (Reinhausen Composite Technology) a continuously growing range of hollow insulators with silicone rubber sheds for outdoor applications as well as without sheds for indoor use is available.

Izolyator representatives visited Maschinenfabrik Reinhausen GmbH:

- Konstantin Sipilkin, R&D Director;
- Pavel Kiryukhin, Deputy Chief Designer;
- Svetlana Kryuchkova, Deputy Chief Process Engineer.

Kinga Kastenberger, Sales Manager at MR welcomed the guests.

The sides discussed a wide spectre of technical and technological aspects of MR insulators application in Izolyator high-voltage bushings and outlined plans of further cooperation.

We would like to thank Maschinenfabrik Reinhausen GmbH for an invitation and active cooperation!



Photo from official webpage of Maschinenfabrik Reinhausen

ZPE ZAPEL S.A. Representatives' Visit to Izolyator Plant



ZAPTEL S.A. Company was founded in 1939 and has become the leading producer of low and high voltage insulators in Poland. Company offer a wide range of products including post and suspension line insulators, post and bushing station insulators as well as post, bushing and hollow apparatus insulators. The insulators which are produced on special orders of individual producers of electrical apparatus and equipment play an essential role in the ZAPTEL's manufacturing programme. This group of products comprises hollows for switches, lightning arresters, voltage and current transformers, voltage dividers, capacitors, high voltage fuses, cable terminals, high voltage bushings and the like.

ZPE Zapel S. A. representatives Jacek Serebinski, Head of Marketing and Sales and Leonid Lisovsky, Sales Manager visited Izolyator plant in the middle of November 2016.

The visitors were received by:

- Ivan Panfilov, Commercial Director;
- Dmitry Abbakumov, Deputy Commercial Director,
- Vladimir Romanov, Head of Purchasing,
- Ekaterina Kupkina, Lead Porcelain Specialist.

The sides discussed planned volume of porcelain sheds purchasing for 2017.

During the traditional plant tour, the guest were introduced to the modern designs and production and testing technologies of high-voltage RIP bushings including bushings with porcelain external insulation by ZPE ZAPTEL S.A.



At the assembly shop of Izolyator, L-R: Jacek Serebinski, Dmitry Abbakumov and Leonid Lisovsky

IZOLYATOR IS PARTICIPANT IN THE KEY INDUSTRY EVENTS

Modern Trends in Power Distribution Exhibition and Forum



On 26 - 28 July 2016, Izolyator took part in the work of the regional Modern Trends in Power Distribution Exhibition and Forum.

The main topic of the exhibition is import substitution.

The event was organized in the framework of interregional professional contest among substation and cable lines maintenance and repair personnel of Rosseti PJSC and the open corporate championship according to the Worldskills methodology and the all-Russian Best-in-Profession contest that are held in the training center of Lenenergo PJSC, Leningrad Region.

During the three days of the exhibition's work Izolyator representatives had a number of meetings with partners and customers and presented innovative designs of high-voltage bushings together with the company profile.

In the result of its work, Izolyator received a thank you letter from Lenenergo PJSC for its input in securing a sustainable innovative development of the power distribution complex of the Russian Federation.



Participants of the Modern Trends in Power Distribution Exhibition and Forum

The XXIII Conference of TRAVEK Association



International Association on transformers, high voltage equipment, electrical ceramics and other spare parts and materials — TRAVEK — was established on 11 April 1991 in order to implement the business cooperation, contributing to marketing, manufacturing and technology development, to ensure product competitiveness in world markets.

Izolyator took part in the XXIII Scientific and Technical Conference of TRAVEK Association "Power and distribution transformers. Reactors. Diagnostic systems" in Moscow.

The conference received support from the Academy of Sciences of RF, the Academy of Electrical Engineering Sciences RF, Russian National Committee CIGRE, the Ministry of Industry and Trade RF, the Ministry of Energy RF, Rossiiskie seti PJSC, FGC UES PJSC.

This year more than 150 electrical engineering companies and organizations from Russia, the CIS and abroad took part in the conference work.

Experts and technical managers of transformer and reactor OEMs from Russia, CIS and other



Yury Nikitin at the rostrum at the XXIII Scientific Technical Conference of TRAVEK Association

countries, scientific and design organizations and universities made reports at the conference.

The participants discussed ongoing research and development of new types of transformer and reactor equipment, prospects of power distribution transformers and reactors development, new completing parts and insulation materials and many other questions of present interest.

The XXIII Scientific Technical Conference of TRAVEK Association "Power and distribution transformers. Reactors. Diagnostic systems" is an excellent platform for new equipment and technologies demonstration, sharing of ideas not only for Russian but for international enterprises in power industry.

The XXIV TRAVEK Conference



The XXIV Conference of TRAVEK Association

Izolyator took part in the XXIV TRAVEK Conference: "Prospects of power industry and high-voltage equipment development. Commutation technique, converter equipment, microprocessor control and protection systems."

The conference held on 28-29 November 2016 was organized by the International Association TRAVEK with support from the Russian Academy of Sciences, Academy of Power Engineering Sciences of Russian Federation, Ministry of Energy of Russian Federation, Ministry of Industry and Trade of Russian Federation, Rossiiskie Seti PJSC, FGC UES PJSC.

At the conference the public considered problems and prospects of the national grid development in Russia, research and prototypes of new types of energy efficient power equipment and other topics of present interest for Russia's power industry prospective development.

Alexander Slavinsky, Chairman of the Board of Directors at Izolyator, Vice-President TRAVEK Association and Vladimir Ustinov, Deputy Quality Director at Izolyator generalized trends in development and application of insulating materials using the materials of the 46th CIGRE Session.

Representatives of the leading Research and Project organizations, power equipment OEMs – TRAVEK corporate members - such as Electrozavod JSC, ABB Ltd, NPP Electromash, ZETO CJSC, VIT PJSC (Ukraine), ABB SP z.o.o. (Poland), FGUP VEI, NIC ZTZ Service (Ukraine), Hitachi Metals Europe GmbH made reports at the conference.

The conference attendees made a number of decisions that reflect the current status and prospects of development of HV power equipment that will be submitted to the state organizations, Rossiiskie Seti PJSC, FGC UES PJSC and other organizations of Russian Federation.



The panel of the XXIII International Conference of TRAVEK Association

Panel Discussion On the National Association of Test Centers

In the framework of the 5th Rugrids-Electro 2016 International Forum, Izolyator participated in the panel discussion "The National Association of Test Centers: relevance of creation. Russia's entry into the global market of testing".

The power industry experts discussed need for creation of the National Association of Test Centers in Russia (NATC).

Alexander Slavinsky, EngD, Chairman of the Board of Directors at Izolyator took part in the panel discussion.

The need for creation of the National Association of Test Centers is dictated primarily by absence of a central body of voluntary certification of power engineering products and by realization of one-contact principle in the situation when power engineering products OEMs select a test center or a laboratory. "One of the objectives for the NATC is functioning as a system of volun-



Alexander Slavinsky speaking at the panel discussion

tary certification and promotion and representation of Russia's interests in the international associations — STL (tests of high-voltage equipment)

and LOVAG (tests of low-voltage equipment)".

"The idea of the national association is now very timely. The Ministry of Energy views the ini-

tiative positively, and we are prepared to provide methodological support. In the long term perspective NATC creation will facilitate Russian OEMs' products promotion to the international markets", said Alexander Mitreikin, Deputy Director of State Energy Policy Department of the Ministry of Energy of Russia during the discussion.

Alexander Slavinsky shared successful experience of Izolyator HV bushings tests at Izolyator's Test Center. In his speech, Mr. Slavinsky supported the idea the National Association of Test Centers creation saying that Izolyator is prepared both to take necessary practical steps and to share experience of testing power products in Russia and abroad.

Other power products manufacturers owning well-established test centers supported NATC creation.

RUGRIDS-ELECTRO International Forum



The Rugrids-Electro Forum seeks to assess external and internal challenges in the Russian power industry, adopt systemic solutions in all important aspects of electrical grid system functioning, and forecast future development and conditions of such development for the industry. The event includes an extensive business program with a large number of discussion panels and interactive events, and a major exhibition that presents scientific and technical potential of Russia in the power industry sector.

Izolyator became an official partner of the 5th Jubilee Rugrids-Electro 2016 International Forum, which was held in 18-19 October 2016 at the World Trade Center in Moscow.

The Forum gathered world's and Russia's leading professionals and experts in power industry. Chief executives of power industry companies, government representatives, OEMs and power equipment designers, academia and universities took part in the event.

In his opening speech, Oleg Budargin, General Director at Rosseti PJSC welcomed the participants on behalf of the Prime Minister of the Russian Federation, Dmitry Medvedev who emphasized the high status of RUGRIDS-ELECTRO: "The Forum is rightly believed one the key industry events of the year. It gives an opportunity to management of large companies, scientists and experts to discuss professional issues, share experience and challenging ideas and to go into business with partners".



Open dialog: "Purchasing and small and medium-sized enterprises: meeting halfway" under the auspices of Opora Rossii (photo from Rugrids-Electro webpage)

The Forum's ambitious program included plenary sittings, round tables, debates and open interviews. The attendants were able to share experience, have face-to-face meetings with the industry leaders and chief executives and get advice from leading experts.

Izolyator representatives held a number of business talks with partners and potential customers and took an active part in the Forum agenda.

On the opening day, Alexander Slavinsky, Chairman of the Board of Directors made an extensive report at the panel discussion "The National Association of Test Centers: relevance of creation and Russia's entrance to the market of testing services". Mr. Slavinsky also presented Izolyator's and SC D1 RNC CIGRE Materials and emerging test techniques activities at the panel discussion "Monitoring systems: indication or technical diagnostics?" and in the course of the open dialog "Purchasing and small and medium-sized enterprises: meeting halfway" under the auspices of Opora Rossii.

On the second Forum day, Izolyator organized an official event: "Izolyator plant: the 120 years of innovation and high-voltage bushings production for the power industry" with participation of management of Rosseti JSC and representatives of grids and power equipment OEMs from Russia and the CIS countries.

At the event, Rosseti and Izolyator signed a memorandum on cooperation. From Rosseti PJSC side, Roman Berdnikov, First Deputy General Director, Board Member signed the document and on behalf of Izolyator — Alexander Slavinsky.

After the signing ceremony, all the participants and guests of the Forum visited Izolyator plant where they were introduced to innovative designs and main stages in production of high-voltage bushings including the unique production technology of RIP bushings.

In the result of the Forum's work, Izolyator earned a diploma of Partner to the RUGRIDS-ELECTRO 2016 International Power Forum.

Electric Networks of Russia 2016



UES PJSC, the Government of Moscow and Technical inspection of UES CJSC.

This year's exhibition was dedicated to the 50th Anniversary of the Power men's Day. In the 19th time, it has become a venue where a great many specialists from power sector, more than 350 exponents from Russia, neighboring countries and non-CIS countries have met, demonstrated technical solutions and novelties in cable products, power products, work wear and power grids.

Alexander Slavinsky, Chairman of the Board of Directors at Izolyator together with honored guests took part in a tour of the exposition and the exhibition's work.

Izolyator's sales representatives used the opportunity to hold a series of business meetings with partners and customers at the exhibition.

On 6 — 9 December 2016, Izolyator took part in the work of the XIX international exhibition Electric Networks of Russia 2016.

The exhibition was held in Moscow at the All-Russian Exhibition Center with support from the Ministry of Energy of Russian Federation, FGC



Electric networks of Russia 2016. In the forefront – Member of the Federal Council of the Federal Assembly of the Russian Federation Yuri Lipatov (L) and Alexander Slavinsky

Innovative Technologies in Power Complex of the Country Round Table



Vladimir Ustinov making a report at Innovative Technologies in Power Grid of the Country round table

Izolyator took part in the round table "Innovative technologies in power grid of the country", which was a part of Electric Networks of Russia 2016 international exhibition.

During the event, innovative technologies and designs for the national power grid were presented

along with new mechanisms for innovations adaptation in power industry. Alexander Slavinsky, Chairman of the Board of Directors and Vladimir Ustinov, Deputy Quality Director at Izolyator summarized existing trends in insulating materials application on the materials of the 46th CIGRE session.

Control of Technical Condition of Power Facilities Conference

Izolyator took part in the III scientific conference "Control of technical condition of power facilities", which was held during the XIX international exhibition "Electric Networks of Russia".

Alexey Pilyugin, Engineering Supervisor at SVN-Service of Izolyator made a report "Control of Technical Condition of High-Voltage Equip-

ment by the Method of «online interaction» between manufacturer and consumer". The speaker gave a thorough overview of the coordination method between the operator and the manufacturing plant of power products that enables operators to quickly and efficiently make decisions about high-voltage bushings operation.



Alexey Pilyugin at the speaker's stand at the Control of Technical Condition of Power Facilities Conference

MODERN LOOK OF THE COMPANY

A New Look of the Company

In September 2016, Izolyator completed works on information and advertising boards installation around the manufacturing facility and the office building of Izolyator. The modern and easy to use

navigation, newsstands and technical information boards, Izolyator logos in the shops together with photo panels depicting the plant's history have invigorated everyday life of the plant.



Company logo at the test area for 10 — 150 kV bushings



Our History gallery at the administrative wing of the plant

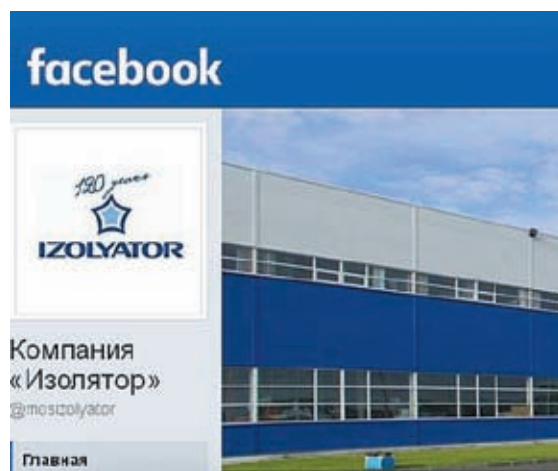


Navigation elements at the manufacturing facility



Company logo at the test area for 220 - 1150 kV bushings

Developing Corporate and Partner Social Media



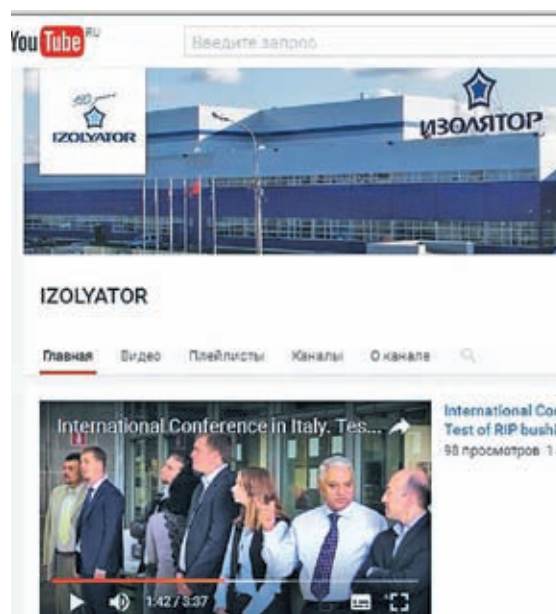
Izolyator page on Facebook

Social media influence business development greatly as they allow for staying connected with partners and consumers of the products. Therefore, in order to timely inform our audience and maintain closer relations with partners and employees, Izolyator is actively developing its social media pages at LinkedIn, Facebook and YouTube.

— LinkedIn is the largest media for business contacts set up that we use to stay connected with our international and Russian partners.

— Facebook is one of the most popular social media in the world where a large number of international companies are represented including Izolyator.

On the company page, our team members and partners can read fresh news, events announcements and weekly rubrics: Our products, Izolyator TV, Quote of the day and many others.



Izolyator channel on YouTube

YouTube, our corporate channel lists Russian and English language films and videos about the company, events and products. The most popular videos at the moment are "Izolyator plant — design and production of high-voltage bushings (over a 1000 views) and the training video "Installation of high-voltage RIP bushings made by Izolyator" (over 500 views).

Stay on top of things and track Izolyator news — sign up to our social media pages!

Just follow the links on the main page of our website <http://mosizolyator.ru/>

Izolyator Website Redesigned

Izolyator corporate website www.mosizolyator.com has been upgraded.

The new design of our internet resource was created in order to meet our partners and customers' demands in a simple and clear presentation allowing to obtain maximum information on products, services, terms of cooperation and to quickly connect with the required division of Izolyator.

We have also added detailed product and services information, expanded contacts section and created a video gallery.

During its 120 year history Izolyator has gained a unique and successful experience in design, manufacture and operation of high-voltage bushings of various applications and voltages. The company shares it openly with its partners in order to achieve common success and make an input in the global power industry development.

We hope you will find the new website design and interface convenient!



Abstract of the main page of the new Izolyator website

ALWAYS OPEN FOR COOPERATION

Visit of Moscow Region Duma Member

In October 2016, Galina Utkina, member of the Moscow Region Duma visited Izolyator plant. Sergey Moisseev, General Director at Izolyator

received the guest.

During the plant tour, the visitor familiarized herself with the company profile, scale of pro-

duction and capacity of the plant. The guest also watched a corporate video about the plant's history and its role in the power sector development in

our country and globally. Galina Utkina marked the innovative character of the enterprise, high level of technology and advanced production culture.



Galina Utkina and Sergey Moisseev on a plant tour

I Forum of Exporters of the Moscow Region

Izolyator took part in the I Forum of Exporters of the Moscow Regions held in the Government House of the Moscow Region on 28 November 2016. The Forum was dedicated to the current issues of the export policy and targeted at development of practical solutions for perfection of the state support mechanism for non-resource exports.

Representatives of the Ministry of economic development of Russian Federation, Federal Customs Service, Russian export center, Federal Corporation on development of small and medium-sized businesses, Chamber of commerce and industry of Russian Federation and leading experts in foreign trade took part in the event.

Izolyator's Dmitry Abbakumov, Deputy Commercial Director also attended the event.



Plenary sitting of the I Forum of the exporters of the Moscow Region (photo from official webpage of the Ministry of Investment and Innovations of the Moscow Region)



Dmitry Abbakumov – participant of the I Forum of Exporters of the Moscow Region

In order to realize the state policy on foreign activities promotion in the region and achieve targets, the Moscow Region Fund for Foreign Trade promotion in the Moscow Region by the Ministry of Investment and Innovations of the Moscow Region was established.

CORPORATE EVENTS

Ceremony of Best Employees Awards

On 24 June 2016, Izolyator held an Awards Ceremony for the best company employees, which was dedicated to the 120th Anniversary of the plant.

The plant workers were awarded Thank you Letters and Letters of Recognition from the Governor of the Moscow Region, Istra Municipal District Administration and Pavlova Sloboda village settlement administration.

The highest corporate award — badge of honour “For many years of dedicated work” — was given to the employees and company veterans who made a large input in Izolyator development and prosperity having worked at the company for 10 to 40 years!

These company veterans received special thanks award “Gold talent pool of the company”: Anatoly Mitroshkin, Nelia Barkova and Boris Kokurkin.



Unforgettable moments of the celebration

Corporate Training of Izolyator Employees



Sergey Moiseev, General Director at Izolyator giving a personal certificate on professional training

In September 2016, Izolyator completed corporate training in Company management.

The company employees studied the legislation of the Russian Federation, general accounting and the processes of design and life cycle management of high-voltage bushings over a course of lectures. The knowledge was tested in several steps. Alexander Slavinsky, Chairman of the Board of Directors at Izolyator chaired the examination board.

All the employees successfully completed training raising their professionalism. Everyone received a personal certificate confirming completed Company management training.

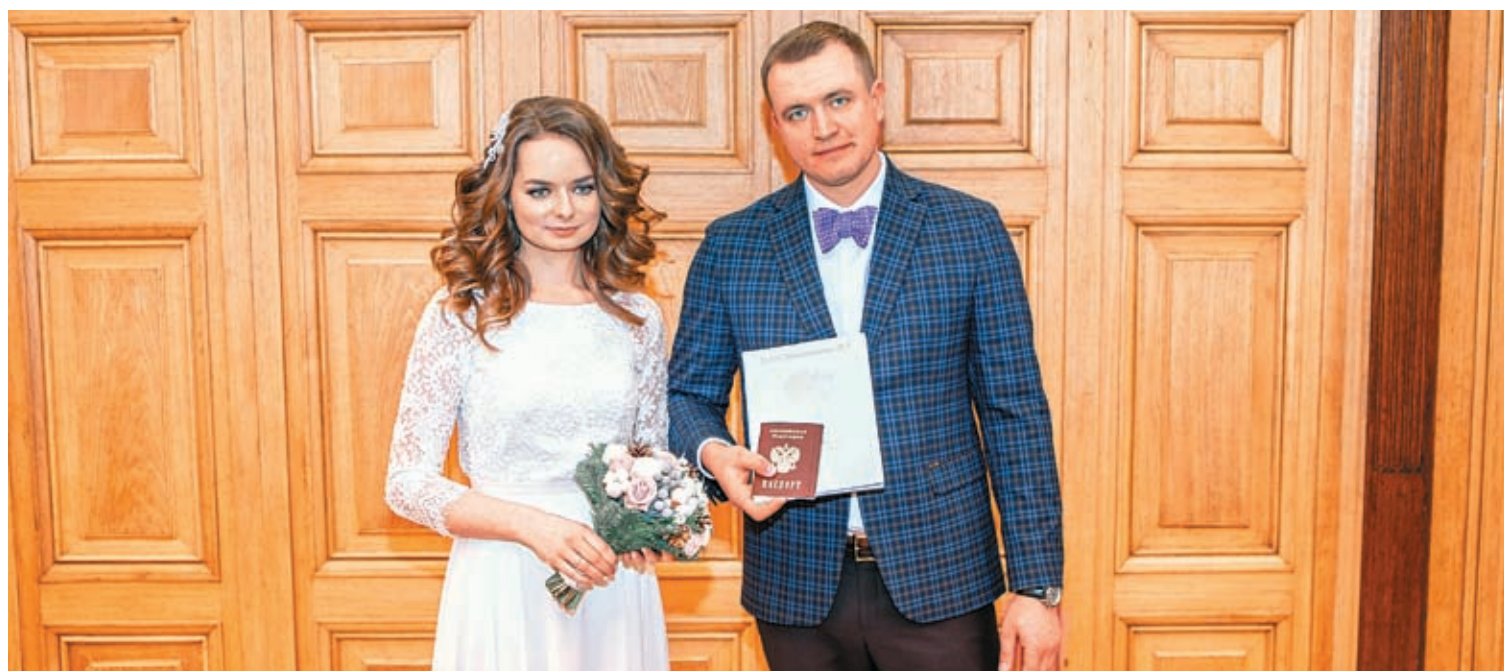
Harmony and Love!

In the year of the 120th Anniversary of Izolyator, we celebrated another bright holiday — marriage of the sales representatives Andrey Shornikov and Natalia Mazova.

This event was particularly remarkable because both spouses are representatives of the plant's labor dynasties, which Izolyator is rich with from the day of its foundation. Natalia and Andrey and the boast of our big family.

Two hearts have united — two labor dynasties have joined.

We are sending our best wishes to the newly-weds and to everyone who threw in his or her lot with someone in the past year!



The Shornikovs

A Big Sports Festival

The row of festive events dedicated to the 120th Anniversary of the plant was continued by a large sports festival with over 200 Izolyator employees demonstrated their talents in volleyball, soccer, ping-pong, badminton, archery, arbalest and air gun shooting.

The event culminated with a paintball contest for Izolyator — 120 years Cup. It was a great example to once again demonstrate to all our colleagues the importance of acting together, keeping team spirit and spirits high.



Opening of the sports festival



Winner team in the paintball cup of the plant



Izolyator's soccer team honing skills



whose reactions are swifter - whose shots are sharper?



A victorious moment

Sales Team Performance Review



Attestation of an employee of commercial department

Izolyator sales team members had their performance review in November 2016. In Russia, during this attestation procedure, an employee's results, hard skills and qualification are verified for relevance to the occupied position.

According to Attestation Policy of Izolyator, it performs attestation of the company employees in the established by legislation order in accordance with Quality Management and Ecological Management guidance of Izolyator. The attestation evaluates achieved results, business proficiency and qualification of an employee in order to confirm his or her adequacy for the job.

Alexander Slavinsky, Chairman of the Board of Directors chaired the attestation commission, which also included Sergey Moiseev, General Director, Alexander Sorokin, Board Member and management of the functional departments of Izolyator.

The performance appraisal confirmed the high qualification and professionalism of the sales team.

2016 Futsal Cup of the Defense Industry of Russia



Futsal cup of the Defense industry of Russia is a championship held among the industry enterprises. It is a fine opportunity to meet informally and set up a contact spending time on the field in company with partners, customers and contractors.

Izolyator futsal team successfully made a debut in the Futsal Cup the Defense Industry of Russia.

The cup was held at the CSKA arena in Moscow with support from the Defense Ministry of Russia. 20 teams of leading defense companies in Russia competed for the main prize. Spartak (Moscow football club) veterans, such as Georgy Yartsev, Oleg Romantsev, Dmitry Khlestov, Rinat Dasaev, Yury Kovtun and others, made an appearance in the event.

Izolyator team entered top five Silver play-off teams after six games and showed the best penalties shootout result!

Our congratulations on the successful debut and deserved victory to Izolyator team:

- Mikhail Sheremetyev, captain
- Gennady Rybakov, coach, master of sports
- Anton Kobelev
- Alexander Nakidalyuk
- Mikhail Kharchenko
- Evgeny Lavrov
- Ilya Laptev
- Mikhail Puzyrev
- Evgeny Kurachuk
- Pavel Ilyin
- Alexander Germanov

We would like to thank our supporters!

A detailed coverage of the futsal cup of the defense industry of Russia will be given in the nearest issue of Izolyator corporate edition.



A well-deserved success



Sport unites



Mikhail Sheremetyev — skipper of Izolyator team



Izolyator team attacks



Next scheduled game is about to start



Only solid team wins!

Veni, vidi, vici



The victorious set at the Open Moscow Arm-lifting Cup APL 2016



From Konstantinov's sports trophies collection: gold medal of WAA arm-lifting championship, 2016



From Konstantinov's sports trophies collection: medal of the second championship of the Europe Association of combined heaving events, 2015: Vityaz, named after Vladimir Kravtsov



Next victory and a new contest waiting!

At times, our hobbies come into our life incidentally to ultimately become a true lifestyle. That is exactly what happened with the finished goods warehouse manager at Izolyator Konstantin Konstantinov. Having come to an arm-lifting competition once as a sideline, he became interested in this kind of sport and decided to try himself in it. Today, Konstantin is a three-time world champion in arm-lifting in his age division.

A TASK FOR A MUSCLEMAN

The term arm-lifting has a literal meaning of «lifting with an arm». The task for a sportsman

is to lift the weight gripping it at a rotating handle of 60 mm diameter. The exerciser was invented and registered in 1993 under Rolling Thunder trademark.

Well, among the predecessors of today's arm-lifting athletes we can name strongmen who were astonishing the public early in the XX century with their physical abilities. Thus, the contemporaries of the German strongman Hermann Gorner nicknamed Gorner the Mighty lifted 330 kg with one hand in 1920!

As such the exercise comes from the deadlift performed with one hand and it occupies a visible



Making it the prizes: one of the places on winner's stand is secured by Konstantinov at the World Cup WAA

position in the history of strength sports, however arm-lifting is more complicated combining the basic deadlift exercise with an inconvenient form of the grip hard to hold in the palm. The grip's design works in a way that the entire load comes on the wrist and forearm (initially it was used exactly as an exerciser for these muscle groups).

OUT OF THE GYM TO THE CHAMPIONS

For Konstantin Konstantinov it all started in 2014 when he first visited Russia arm-lifting cup. «First, I was simply curious, but later I became keen on it», says Konstantin. «Sports has always been in my life, even though I've never went into it professionally. When I was 15, Russia was going through a gym boom and it was then when I started regular workouts. I keep doing it today working as gym instructor in the evenings!»

With time, arm-lifting progressed enough to create World Armlifting Association. The first official contest in Russia was held in 2010 in Podolsk (Moscow Region) as part of armwrestling team championship of the Moscow region. WAA recommends its regional representatives to include in the contests program exercises that develop various types of grips. Exercises for certification and arm-lifting are selected based on their visual appeal, popularity and interest. Thus, competing in the Moscow region championship in May 2016, Konstantin Konstantinov took the first places

in the absolute category Russian axis (suspend grip) and Excalibur.

ON THE WORLD LEVEL

The arm-lifting contests are particularly interesting for their hard to predict nature. One can hardly tell the result judging by the appearance of the contestants as it does not depend on the general physical development, but rather — on the power of the wrist grip. In Russia there also exist the Union of armlifters of Russia and Armlifting Professional League. Each of those organizations runs own contests. In the contest organized by the Union of armlifters of Russia in April 2016, Konstantin took the 3 place among veterans, a month later, he showed a better result taking the 2 place at the APL championship in Tverskaya region.

A tournament of special pride, as the organizers insist, is unmatched elsewhere in the world. In October 2016, World Armlifting Association and WAA's official representation in Moscow and Moscow region held a World Armlifting tournament at the Expocenter. Among veterans in the category 40+ Konstantin Konstantinov took three first places! He won gold in such categories as Russian axis (180 kg), Russian roulette (83 kg) and Excalibur (110 kg)! Konstantin confesses that among his colleagues there are many people fond of sports. We are looking forward to new victories!

WE THANK ALL OUR PATNERS FOR FRUITFUL COOPERATION!



SALES DEPARTMENT OF IZOLYATOR COMPANY

Our mission is to create basis for stable and sustainable power supply. We can achieve this goal only with common effort in close cooperation, joint creation and development. That is why we value dialogue with you so highly as it is a starting point towards success in our common goal.



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IZOLYATOR

Century-old traditions - state-of-the-art technologies

120 year

OF PRICELESS EXPERIENCE IN POWER INDUSTRY

FOR MORE THAN A CENTURY IZOLYATOR HAS DESIGNED AND MANUFACTURED BUSHINGS USING ADVANCED TECHNOLOGIES THAT ALLOW TO ENSURE UNINTERRUPTIBLE POWER SUPPLY THROUGHOUT THE GLOBE

120

years of experience
in production
of insulating
equipment

Sole bushings
manufacturer
in range
in Russia and CIS

12-1200 kV

TOTALLY made bushings

620 000

bushings made –
an equivalent of 90 000
transformers
with 80 MVA capacity

550 000
OIP

70 000
RIP

250 000

bushings
are successfully operating
in the facilities of Rosseti PJSC

Exports
to more
than

30

countries worldwide