WE CREATE THE FOUNDATION FOR A SUSTAINABLE POWER SUPPLY OF SOCIETY AND EVERY MAN



Izolyator Corporate Edition www.mosizolyator.com 2014 OUTCOMES AND PLANS FOR 2015

Nº4 (4) **October - December** 2014

From the first person

Strategy of Success



DEAR PARTNERS, COLLEAGUES AND FRIENDS!

In the nature of things any achieved result brings a clear look of perspective for making a new step. With much done, we have a lot of effort ahead yet, no less purposeful and strenuous.

Strategy

Izolyator will keep working to integrate Russia into global Power Industry. We plan to further cooperate with markets of India and Vietnam and expand geography of business contacts in close contact with Russian government - actively analyzing international power market trends. Targeting ROS growth on domestic market, we will use the situation around import substitution as a driver. Our all-time orientation to strengthening ties with Russian partners will continue with closing positions through joint goal setting and planning.

The main criterion of our technical policy stays unchanged - wholehearted orientation to the needs and requirements of our customers offering recent HV insulation technology development.

Russian market

Economic sanctions have triggered import substitution processes in Russia including objectives set in the National policy. As President Putin said, Russia would pursue a policy of "active import substitution" in accordance with WTO norms and obligations towards Eurasian Economic Union partners. In March 2014, Prime Minister Medvedev named import substitution by domestic products one of priorities for the Government.

We are ready for such paradigm development with our product range fully satisfying best global standards and our technology innovation strategy, which does not depend on political context being determined only by the customers' requirements.

We develop multi-faceted cooperation with all key operators on the Russian market: generating, transmitting and distributing companies. Today Izolyator is an official supplier to such industry leaders as Rosseti JSC, Concern Rosenergoatom, Group of companies InterRAO, RusHydro JSC. A special focus is given to joint projects with transformer plants operating on Russian market.

Izolyator secures leadership in all sectors of Russian Power Industry relating to design and manufacture of high-voltage bushings of various applications and voltage types.

Foreign Trade activities

Last year we all witnessed changes in political-economic situation. Geopolitical scene necessitates a closer partnership and strengthening friendly ties with countries outside the orbit of anti-Russian sanctions and open to cooperate on mutually beneficial foundation.

According to Minster of Industry and Trade of the Russian Federation Denis Manturov, Russia has made a "strong emphasis on multi-faceted cooperation development with Latin American, Asian Pacific, African and Middle Eastern countries". A number of directives and initiatives on this part were sounded by Minpromtorg, Minenergo and Ministry of Economic Development and Trade of Russia.

The plans see active development of economic ties with the involvement of leading Russian businesses from Power Energy and Electric Engineering sectors. The ultimate goal is to facilitate Russian products export to overseas markets.

From the very beginning, Izolyator, having a rich international operations exposure, expressed support to some of Minpromtorg's initiatives and got into gear with economic exchange with partner-countries in the new conditions.

This year our company achieved a breakthrough in this respect working out business ties with leading Power companies and Power Equipment makers in India and Vietnam.

Izolyator's initiative was noticed and received development in regular contacts between FSK UES JSC, governmental structures and top management of the corporations in the partner-countries. It is important to say that we will continue cooperation with our existing partners - transformer plants in Europe and CIS. We are open to dialogue and joint projects with any interested countries.

Technical policy

As mentioned above, an invariable priority for our enterprise remains outrunning innovational approach to design and manufacture of insulating equipment. One has to only think about mass implementation of RIP insulation in the first half of 2000 and works on DC bushings.

We carry on with modernization and design of new prototypes in pursuit for technical perfection and reliability of internal insulation of bushings at appropriate serviceability levels. A good progress we achieved in development and promotion of bushings with extra moisture-resistant RIN insulation.

Presently "RIS" term is suggested for revision of IEC 60137-2008 publication by participants from Izolyator side within the Russian national IEC committee delegation.

Traditionally we deliver a large volume of projects with custom-made designs based on varying degree of mass-produced models adaptation. Thus, we are well on the way with the growth strategy following our mission in the new reality of the present day.



Alexander Slavinsky, Chairman of the Board of Directors Izolyator, Vice-President of AES, D.Eng.Sc.

Наша миссия

Мы создаем основы для стабильного и устойчивого

Наше видение Мы стреминся быть мировым лициров

TO BE THE WORLD'S LEADER IN THE DEVELOPMENT, MANUFACTURE AND INTRODUCTION OF MODERN TECHNOLOGY TO THE POWER INDUSTRY







PANORAMA

Direct Speech



DEAR COLLEAGUES!

The road will rise to meet the one who walks it - this saying has never been more relevant. The 2014 became a year of fast unpredictable changes that bind us to be ready to make quick and professional decisions.

Izolyator's main goal is to be a global leader in design, production and implementation of advanced technologies in power industry. Last year showed vividly that a critical condition of achievement is our ability to provide our colleagues, partners and clients with maximal support at any, at times unexpected, situations.

I wish to thank our people at Izolyator. As an integral, professional team we are not in search of better partners, we rather strive to become the best possible partner for growing businesses of our clients!

In this current edition, we would like to share results of our work with you and tell about our plans for 2015. Together we create and will create foundation for sustainable power supply of the society and every human being! This is our mission!



Ivan Panfilov, Commercial Director, 1st Deputy General Director at Izolyator



Социальная ответственность

Компания «Изолятор» строит социальную политику на основе гармоничного сочетания интересов владельцев компании, сотрудников компании, местного населения и общества в целом при неукоснительном соблюдении законов Российской Федерации

Social responsibility

Izolyator company forms a social policy on the basis of harmonized interests of the company owners & personnel-local population and society in whole in terms of the strict observance of the laws of Russian Federation



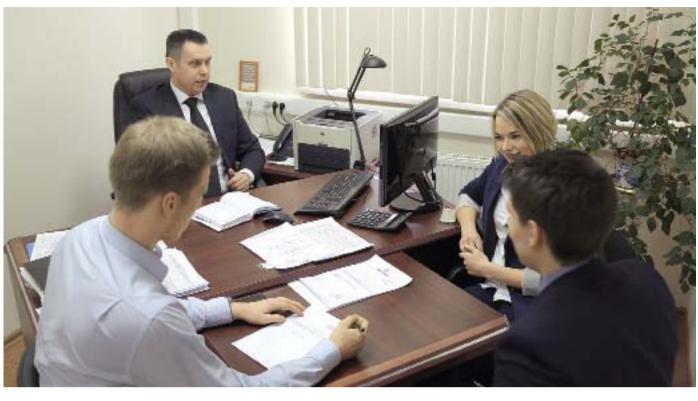








PANORAMA







TEAMWORK IS A BASIS OF ORGANIZATION SUCCESS

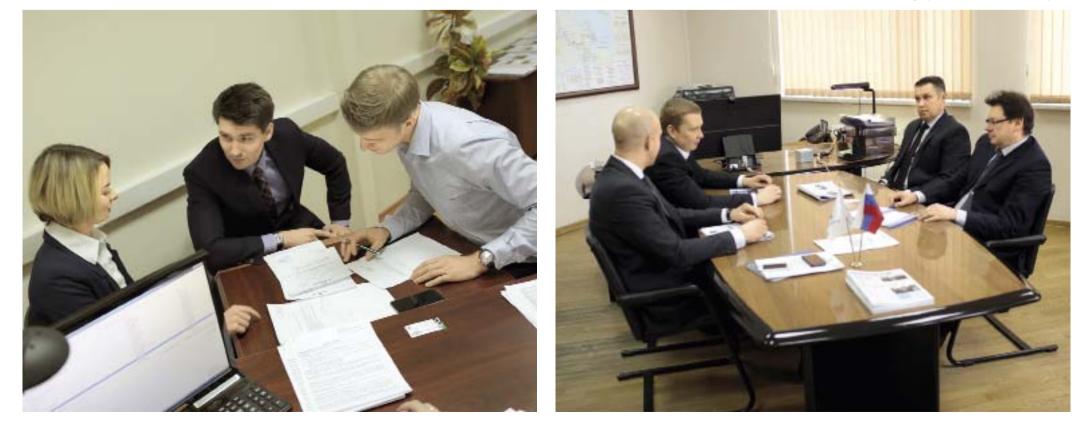
An aggregate of interdependent and interacting processes is a basis for an organization's efficient operation. A coordinated and dynamic work of all company divisions is necessary to produce a product that meets customers' requirements.

The Sales Department in a manufacturing plant executes interaction with consumers from the moment of order receipt to delivery and evaluation of satisfaction level. Yet sales people are unlikely to cope with entire range of issues around client service delivery without qualified support from their colleagues at other plant's divisions. The information received from the client has to be correctly addressed to relevant services for timely and professional assessment and launch of a product's lifecycle.

At contract analysis stage it is necessary to coordinate closely all plant's divisions in order to minimize risks of products manufacture that do not meet customer requirements. It is vital to consider such factors as materials and completing parts delivery time, design and technical process documentation availability or time needed to create those if none available, equipment workload planning for production dates, suitable testing methods and appropriate measuring tools availability, financial and legal aspects of contracting and many other. Only a professional tight-knit team is capable of achieving result in these conditions. Our company staff consists of highly qualified specialists capable to achieve current and prospective objectives. The year results clearly show that as a manufacturer of modern, advanced power engineering equipment, we secure leading positions in the most important industries in Russian Federation and abroad.

We are grateful to the colleagues in all company divisions that represent its interests in all areas of activity, demonstrating high professionalism and integrity. I wish our team and our company Izolyator development and success in 2015!

Dmitry Abbakumov, Deputy Commercial Director at Izolyator





POWER INDUSTRY IN RUSSIA

Direct Speech



DEAR COLLEAGUES!

I would like to summarize our work in 2014. It was a difficult but interesting year. We held a great many meetings and seminars with both technical and commercial offices of grid and generation companies.

I should emphasis the fact that Izolyator qualified as official HV bushings supplier for the needs of PowerGrid Corporation of India Limited. We also appreciate joint work done with FSK UES JSC regarding international cooperation expansion with Indian manufacturers of HV equipment.

I am confident that 2015 will bring a lot of interesting projects and achievements in that direction.

On behalf of Izolyator team, I would like to thank our colleagues and partners for a great job done in 2014. My best wishes in the coming year – may your plans to reach new professional and personal heights come true!

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Alexander Savinov, Director of Strategic Sales at Izolyator

Izolyator is a partner and supplier to FSK UES!

Izolyator has been selected supplier of HV bushings to power grids of FSK UES JSC branches, in 2014. We would like to thank FSK UES for their trust in Izolyator as a reliable long-term partner.

FSK UES REPRESENTATIVES FAMILIARIZED THEMSELVES WITH THE PRODUCTION FACILITY

In February 2014 representatives of Rosseti JSC, daughter company of FSK UES JSC, visited Izolyator plant. The guests learnt about modern technology of HV bushing manufacture and testing. K.G. Sipilkin, R&D Director and Yu.V. Nikitin, Chief Designer and D.V. Ivanov, Head of Testing Center delivered the tour. During the visit, the parties discussed plans for 2014 and long-term cooperation prospects.



FSK UES in the testing center of Izolyator



MEETING WITH MES EAST REPRESENTATIVES

In April 2014, 1st Deputy General Director and Chief Engineer of Power Grids of East, a branch of FSK UES JSC, O.V. Grinko visited Izolyator.

Izolyator's R&D Director K.G. Sipilkin and Head of Testing Center D.V. Ivanov introduced modern HV bushing production technology to the guest.

The sides agreed new plans for further cooperation during the visit.

In July 2014, Izolyator's Direc-





tor on Strategic Sales A.A. Savinov visited MES East in Khabarovsk and its facilities in the region:

- Amurskoe PMES in Blagoveschensk;
- Khabarovskoe PMES in Khabarovsk;
- Primorskoe PMES in Vladivostok.

The parties discussed cooperation plans. We would like to thank FSK UES JSC represented by MES East and PMES colleagues for invitation and warm welcome.



POWER INDUSTRY IN RUSSIA

VISITING MES NORTH-WEST



In February 2014, A. A. Savinov, Director on Strategic Sales of Izolyator, visited MES North-West (power grids of North-West) – a branch of FSK UES JSC.

The sides discussed issues of continued cooperation and partnership for 2014 at the meeting. We kindly thank FSK UES JSC represented by MES North-West for the invitation and warm welcome.

EXCURSION FOR TECHNICAL SPECIALISTS OF FSK UES JSC

In December 2014, 30 technical specialists from Grid Companies of Center, East, South, North-West, Siberia and Volga visited Izolyator plant. We suggested the excursion with educational purposes to raise qualification of FSK UES JSC personnel in current technologies of production and testing of HV bushings and RIP insulated bushings' design and operation features.



REPRESENTATIVES OF MES SOUTH ARE STUDYING RIP TECHNOLOGY

In November 2014, Izolyator received representatives of Power Grids South (MES South), branch of FSK UES JSC:

Head of Substation Equipment Service A.V. Siryakov;

• Chief Specialist of Substation Equipment Service D.V. Moloshny. The guests were acquainted with modern HV bushings production and testing technology. The partners talked on the issues of application and operation of RIP insulated bushings.





AES RF: MAKING A PRACTICAL INPUT IN RUSSIAN ELECTRICAL ENGINEERING SCHOOL



In February 2014, Chairman of the Board of Izolyator A.Z. Slavinsky, D. Eng.Sc. was elected academician to the Academy of Electrical engineering Sciences of



VNIIMS: CONSOLIDATING EFFORT



my unites several hundreds of leading scientists and specialists in electrical engineering, power industry, electronics including over 30 members of Russian Academy of Sciences. One of the goals for the Academy is to consolidate efforts of scientists and higher school, sectoral researchers in close cooperation with Russian Academy of Sciences for defining and addressing strategic growth objectives of the national economy of Russia. A representative delegation of

Russian Federation. The Acade-

A representative delegation of AES RF members visited Izolyator plant and studied in detail modern HV bushings production and testing technologies. Izolyator has been a member society of AES RF since 2010.

The testing center of high-voltage equipment at Izolyator signed a frame agreement with All-Russian Research Institute of Metrological Service (VNIIMS) in July 2014.

The purpose of the agreement is to consolidate effort in creation of reference database for metrological support of equipment tests with voltages above 500kV (DC voltage and AC voltage of industrial frequency) and above 1000kV (lightning and switching impulses amplitude). The reference database is necessary for test fixtures and measuring equipment homologation and approbation.



POWER ENERGY OF RUSSIA

Direct Speech



DEAR **COLLEAGUES!**

In 2014, we held many meetings with technical specialists of grid and generation companies, contractors and design institutes in Russia. Those meetings took different formats including visits to Izolyator and seminars at the client premises. Our company also exhibited at regional power industry events. The technical staff of our products consumers received detailed information on our product range, technologies, materials and completing parts used for manufacture of Izolyator bushings.

The specialists witnessed a high level of manufacturing practices, quality control, equipment and materials. Those factors secure high competitiveness of Izolyator products in Russia and abroad. Despite of the crisis our sales volumes did not drop in 2014 comparing to previous years. That is yet another proof that our HV bushings are in stable demand and enjoy high level of trust from our customers in Russia.

The results of this year show that all orders were delivered on time without any complaints from consumers – a good basis for a new start in the next year.

In 2015, we will keep direct contacts with consumers in technical seminar format at any location. We value live feedback from participants of these events - all suggestions and opinions are considered for design and production development. We hope our relations with customers will go to a new level in the next year and it gives us strength and optimism!

Oleg Bakulin.

Director of Partner Relations at Izolyator

Russian partners: closing positions

CONCERN ROSENERGOATOM: ROSENERGOATOM EGULAR MEETINGS BECAME A TRADITION

ELECTROTECHNICAL COUNCIL CONCERN ROSENERGOATOM

Izolyator took part in a session of Electotechnical Council of Concern Rosenergoatom JSC dedicated to Increasing reliability of electrical equipment, which took place in the town of Zvenigorod, Moscow region in November 2014. The Chief Designer of Izolyator Yu.V. Nikitin made a report on "Track record of production and operation of bushings with RIP insulation".

In accordance with the agenda, a group of participants went to Izolyator facility and was introduced to the modern technology of production and testing of HV bushings and new designs aimed at increasing reliability and operational convenience. We wish to thank Rosenergoatom for invitation to take part in the Council sitting.



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POWER ENERGY OF RUSSIA

MEETINGS WITH REPRESENTATIVES OF NUCLEAR **POWER STATIONS**

Representatives of nuclear power stations, branches of Concern Rosenergoatom visited Izolyator twice: in July 2014 - Head of Electrical shop of Smolenskaya station M.G. Potehin, in September – Deputy Head of Electrical shop of Kurskaya station M.V. Koshelev.

The visitors saw the plant and products and paid special attention to operational features of high-voltage bushings with RIP insulation. The guests also leant about modern technology of manufacture and testing of HV bushings. The tour was made by Director of Partner Relations O.N. Bakulin, Chief Designer Yu.V. Nikitin, Head of Testing Center D. V. Ivanov. O. N. Bakulin visited Smolenskaya power station in December 2014.

M.G. Potehin, Deputy Chief Electrical Shop welcomed the representative of Izolyator. The parties discussed issues of HV bushings operation and nearest replacements of outmoded types at the power station. All collected comments and operational experience at the station will be considered for new designs development. We appreciate Concern Rosenergoatom's invitation and welcome.



INTERRAO JSC: COOPERATION IN ALL DIRECTIONS

Seminar for specialists of Bashkir Generation Company Ltd.

In February 2014, Izolyator took part in a seminar for technical staff of Bashkir Generation Company Ltd. (part of InterRAO JSC

of Bashkir Grid Company in the city of Ufa. Deputy Sales Director O.N. yator's new products and talked about operation and diagnostics of HV bushings. We would like to thank InterRAO JSC for arranging

the seminar.

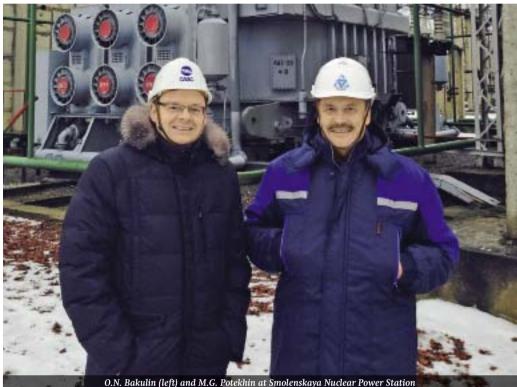
The 6th seminar for technical managers of foreign branches of

Visit to Kostromskaya GRES

In December 2014, Director on Partner Relations of Izolyator O.N. Bakulin visited Kostromskaya GRES of InterRAO Group. Deputy Head of Electrical shop of Kostromskaya GRES A.V. Kheruvimov welcomed Izolyator representative and discussed issues of operation and outmoded bushing types replacement schedule. All comments and operational experience will be taken into consideration at new design developments



At Izolyator plant, left to right: Yu.V. Nikitin, M.G. Potekhin, D.V. Ivanov and O.N. Bakulina



INTER 🔅 RAOUES

kulin and Deputy Quality Digroup) together with specialists rector V.N. Ustinov presented Izol-



InterRAO JSC

Izolyator participated in the sixth seminar of technical directors of overseas branches of InterRAO JSC that took place in one of the Georgian grid companies Telasi JSC based in Tbilisi in May 2014.

Chairman of the Board of Directors of Izolyator A.Z.Slavinsky and R&D Director K.G. Sipilkin made a report on "Certain aspects of production and supply of Izolyator products". At the end of the seminar, a positive feedback on Izolyator products operation by Telasi JSC was received with high rating given to reliability and technical level. We wish to thank InterRAO JSC represented by Telasi JSC for invitation to the seminar.

Our appreciation to InterRAO JSC represented by Kostromskaya GRES for invitation and warm welcome.





RUSHYDRO JSC: PRACTICAL ISSUES OF COOPERATION

MEETING AT FAR-EASTERN GRID COMPANY

Izolyator took part in the meeting at Far-Eastern Distribution Company, part of holding RAO Power Systems of East in Blagoveschensk in January 2014. RIP insulated bushings by Izolyator were in the center of the discussion: operation and diagnostics issues, agreement to continue cooperation. We would like to thank RAO Power Systems of East JSC represented by Far-Eastern **Distribution Company** for the invitation and meeting.



TATENERGO JSC: LEARNING FROM EACH OTHER

In March 2014, Izolyator organized seminars for technical specialists of Generation Company JSC and Distribution Company JSC owned by Tatenergo JSC in Kazan. Izolyator plant and its products were presented to the specialists of Generation and Distribution companies. Operation and diagnostics issues of products were discussed. We would like to thank Tatenergo JSC represented by Generation and Distribution Companies for invitation and seminar organization.





Me Enel

ENEL OGK-5 JSC: INTRODUCTION TO ADVANCED PRODUCTION

In June 2014, Izolyator was visited by representatives of Enel OGK-5 JSC (Enel Group). Izolyator plant and its products were presented to the guests detailing modern bushing production and testing technologies. The parties discussed cooperation prospects.

E.On Russia JSC: introduction to modern technologies



VISIT TO CHEBOK-SARSKAYA GES

In December 2014, Director on Partner Relations of Izolyator O.N. Bakulin visited Cheboksarskaya GES, a branch of Rushydro JSC. During the visit to the power station HV-bushing operation issues and replacement schedule were discussed. All comments and suggestions will be considered in design and production development. We appreciate Rushydro holding represented by Cheboskarskaya GES for invitation and warm welcome.



BASHKIR GRID COMPANY JSC KNOWLEDGE ADDS ON TRUST

Izolyator took part in a seminar for technical specialists of Bashkir Grid Company Ltd., daughter company of Bashkir Distribution Company JSC. The seminar took place in the training facility of Bashkirenergo JSC in Ufa on 19 February.

Deputy Sales Director O.N. Bakulin and Deputy Quality Director V.N. Ustinov presented new company products to the audience and discussed issues on bushings operation and diagnostics. We wish to thank Bashkir Distribution Company represented by Bashkirenergo JSC for invitation and seminar organization.

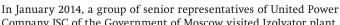
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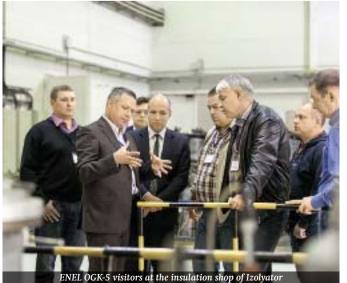


United Power Company JSC: new level of cooperation



RusHydro





Testing center of Izolyator plant (left to right): O.N. Bakulin, A.A. Savinov, D.E. Pichugin, P.V. Kiryukhin and V.O. Lebedev

On 16 December 2014, Izolyator welcomed a delegation of E.On Russia JSC (part of E.On SE) represented by:

Chief Specialist of production technology department D.E. Pichugin and Leading Specialist of Operation and Maintenance Department PGU V.O. Lebedev.

Izolyator was represented by

Director on Partner Relations O.N. Bakulin, Director of Strategic Sales A.A. Savinov, Deputy Chief Designer P.V. Kiryukhin.

E.On Russia representatives were introduced to RIP-insulated HV bushings production process including entry quality control of materials and completing parts, insulation manufacture, assembly, testing, exit control of finished goods. The guests received detailed information on technical solutions used by Izolyator for bushing quality increase. The guests saw manufacturing facilities and discussed joint projects and cooperation prospects.





POWER INDUSTRY OF RUSSIA

VISITING – DIRECTOR OF LOGISTICS AND PROCUREMENT DEPARTMENT OF MOESK



In January 2014, Director of Logistics and Procurement Department, member of Central tender committee of Moscow United Grid Company JSC, daughter company of Rosseti JSC, I.A. Sukhanov visited Izolyator.

Chairman of the Board of Directors of Izolyator A.Z. Slavinsky introduced the guest to modern technologies of HV bushings manufacture and testing. The sides agreed to develop partnership on mutually beneficial foundation. LENENERGO JSC: HIGH RATING FROM SPECIALISTS

MOESK





In January 2014, Izolyator received representatives of Lenenergo JSC, a daughter company of Rosseti JSC. The visitors watched a corporate video about Izolyator plant and its products and learned about modern

technologies of HV bushings manufacture and testing. The guests gave a high praise to the technologies. Both parties expressed firm intention to develop partnership on long-term basis.



TECHNICAL COUNCIL OF TUMEN ENERGO JSC

Izolyator took part in a session of the Technical Council of Tumenenergo JSC, a daughter company of Rosseti JSC in Surgut in January 2014. In the course of discussion, the sides covered issues of operation and diagnostics of HV bushings. Our thanks to the organizers of the technical council for invitation and discussion.

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Technical Council at Tyumenenergo



POWER INDUSTRY OF RUSSIA

SEMINARS IN MRSK SIBERIA JSC BRANCHES

Joint Block Interregional Distribution Company Grid Company of Siberia



In April 2014, Izolyator ran seminars for technical specialists of Chitaenergo and Buryatenergo – branches of MRSK Siberia JSC. The participants viewed presentation of Izolyator plant and its products. All specialists received training on operation and maintenance of RIP-insulated bushings, including measurements and diagnostics performance on equipment and installation of Izolyator-made bushings.

FACTS ON RIP INSULATION FOR SPECIALISTS OF MRSK CENTER AND PRIVOLZHYE

In May 2014, Izolyator received representatives of Interregional Distribution Network Company of Center and Privolzhye – a daughter company of Rosseti JSC. A seminar on installation and operation of RIP-insulated bushings was

organized. The guests learnt about modern technologies of manufacture and testing of HV bushings.



ROSSETI JSC AND NIIC MRSK JSC: IZOLYATOR BUSHINGS HAVE PROVED RELIABLE



Yu.V. Nikitin, Chief Designer of Izolyator made a report on engineering changes in the upgraded series of bushings with RIP insulation





and demonstrated results of endurance tests. In the course of plant tour, the guests learned about modern technologies of production and testing of HV bushings as well as prospective designs of advanced design-engineering bureau at Izolyator.

In the result of the visit Rosseti JSC and NIIC MRSK JSC representatives observed an open and constructive position of Izolyator, sufficient durability of HV bushings and their compliance with regulatory documents; and also high potential of moisture resistant hard RIN insulation.



POWER INDUSTRY OF RUSSIA

REGIONAL POWER GRIDS JSC: VALUABLE FIRST-HAND KNOWLEDGE



In July 2014, Izolyator held a seminar for technical specialists of Regional Power Grids JSC (RES JSC), Novosibirsk. HV bushings' de-

sign features and operation details of external polymer-insulated bushings were studied. The specialists used the chance to consult directly the Chief Designer of Izolyator company. Our best regards to RES JSC and gratitude for seminar organization.



SOYUZ HOLDING: SETTING COMMON GOALS

In August 2014, Deputy Director of engineering-construction company Soyuz-Seti (ISK Soyuz-Seti JSC) –head company in Grids division of Soyuz holding -V.I. Ryltsev visited Izolyator.

Soyuz-Seti is an EPC contractor of full cycle that undertakes reconstruction



and modernization projects as a general contractor and turnkey construction of power network facilities. A.A. Savinov Director of Strategic Sales of Izolyator and P.V.Kiryukhin, Deputy Chief Designer introduced the guest to modern technologies of high-voltage bushings manufacture and testing.

The partners mapped plans for cooperation in the result of the meeting. In December 2014, Izolyator completed an urgent order for 500kV hard internal RIP-insulation bushing with dry filling. The client – Soyuz-Seti successfully installed that bushing on substation Kamala-1, a branch of MES Siberia.



ELECTRICAL ENGINEERING INDUSTRY OF RUSSIA AND CIS

EC

Direct Speech



DEAR **COLLEAGUES!**

I would like to thank all colleagues and partners of Izolyator for cooperation in 2014. This year the company went a long way and it yielded results: all major transformer plants in Russia and CIS are buying Izolyator products and for some of them we became a sole supplier of high-voltage bushings. Izolyator also qualified as official supplier to PowerGrid (India), and is an exclusive supplier to FSK UES JSC. These achievements open huge prospects for development both on domestic and international HV equipment markets. I am confident that together we will be a success in the next year, all plans fulfilled, positions advanced!



Maxim Zagrebin, Head of OEM section at Izolyator

Manufacturers of power equipment – area of special attention

POWER **STANDARD LTD.:** PLANS AND PROSPECTS

In July 2014, V.N. Kalaushenko, Divisional Sales Director Russia of Power Standard Ltd. visited Izolyator. Power Standard Ltd. promotes products of the largest industrial enterprises in CIS, namely PAO Zaporozhtransformer and Energomash JSC (Yekaterinburg) – Uralelectrotyazhmash. A.Z. Slavinsky, Chairman of the Board of Directors of Izolyator and 1st Deputy General Director I.D. Panfilov acquainted the guest with manufacture of high-voltage bushings and new product designs developed at the plant. The parties discussed delivery schedule progress and reconfirmed long-term partnership plans.



PAO ZAPOROZHTRANSFORMER: **COOPERATION PROVEN OVER TIME**



In October 2014, five bushings 500kV voltage type successfully passed acceptance checkout in the plant's testing center for PAO Zaporozhtransformer. GK-

UETN

TIII-60-550/1250 O1 bushings are designed for mounting on 267 MW transformers of Permskaya GRES. The tests lead by V.N. Ustinov, Deputy Quality Director and

D.V. Ivanov, Head of the Testing Center, were also attended by the Head of Design office in Chief Designer Department of Zaporozhtransformer A.V. Neporozhny.

URALELECTROTYAZHMASH: A FIRM FOUNDATION FOR PARTNERSHIP HIGH-RANKING REPRESENTATIVES OF URALELECTROTYAZHMASH VISITING

In February 2014, Izolya-tor received I.V. Ptitsyn, Ge-puty Commercial Director Director, 1st Deputy General Director, 1st Deputy General Director, 1st Deputy General neral Director of Energomash

S.B. Troitsky. Chairman of the Director I.D. Panfilov acquaint-

ing and discussed cooperation

VISITING URALELECTROTYAZHMASH



Ekaterinburg JSC (Ural- Board of Directors of Izolyator ed the guests with modern and partnership prospects.





In September 2014, Head of OEM Section of Izolyator M.I. Zagrebin visited Energomash JSC (Yekaterinbug) - UralElectrotyazhmash. After the tour of the plant Izolyator's representative discussed cooperation plans with partners.



SVEL

ELECTRICAL ENGINEERING INDUSTRY OF RUSSIA AND CIS

HC ELECTROZAVOD JSC: MEETING UFIMSKY TRANSFORMER PLANT





In February 2014, Izolyator representatives visited Ufimsky transformer plant a separate subdivision of HC Electrozavod JSC. Among Izolyator visitors were Deputy Sales Director O.N. Bakulin and Deputy Qual-

ity Director V.N. Ustiniov. Yu.P. Vertyakov, acting General Director, welcomed Izolyator delegates at Ufimsky transformer plant.

A tour around the plant was organized for the guests and

the sides discussed cooperation plans for 2014. We would like to thank holding company Electrozavod represented by Ufimsky transformer plant for invitation and warm welcome.

SVEL LTD. – POWER **TRANSFORMERS: STRONG BUSINESS RELATIONS ARE ESTABLISHED**

The Head of OEM section at Izolyator M.I.Zagrebin visited Svel – power transformers Ltd. in Yekaterinburg in September and December 2014. During that time, strong business relations

were established and cooperation plans worked out. During the last visit in the year, Izolyator representative met with Lead Manager L.N. Smolova. During the meeting, the sides summarized results of the activities and planned cooperation for 2015. We wish to thank Svel – power transformer Ltd. for cooperation last year and ever-friendly attitude.



POWER MACHINES TOSHIBA LTD. HV TRANSFORMERS: ON THE WAY TO COMMON GOALS

In 2014, Izolyator representatives visited Power Machine Toshiba Ltd. five times in Saint Petersburg. Within that time, the companies formed part-

nership that boasts a number of directions of cooperation. Last trip in 2014 was made by Izolator's M.I. Zagrebin, Head of OEM section who was welcomed

by D.A. Morozov, Head of Purchasing, V.V. Dydykina, Head of Design office, A.A. Smirnov, Lead Design engineer. The sides finalized joint activities in 2014

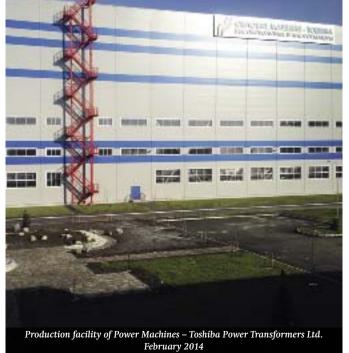
СИЛОВЫЕ МАШИНЫ - ТОШИБА ОКОВОЛЬТНЫЕ ТРАНСФОРМАТОРЬ

> and discussed plans for future cooperation. We are grateful to Power Machines - Toshiba Ltd. for this year cooperation and for warm welcome.

ALAGEUM **GROUP**: **STRATEGIC** PARTNERSHIP



In March 2014, a meeting of Izolyator team and Alageum Group representatives took place in Almaty, Kazakhstan. The meeting covered topics of continued cooperation and strategic partnership. We appreciate kind invitation and work done.





CHAONAE MAIDNEA - TOUMS/







Direct Speech



DEAR COLLEAGUES!

One of the main happenings and achievements in 2014 that I was directly involved in became PowerGrid Corporation of India Ltd. audit and a trilateral meeting with participation of Power-Grid, FSK UES JSC and Izolyator. Successful result of a thorough audit and Izolyator's qualification as official supplier to the largest Indian power network company proves that our enterprise possess sufficient potential for undertaking ambitious international projects. During our daily foreign trade activities, we clearly see how strong our authority becomes and image improves on the international markets of high-voltage equipment. More and more countries show interest in Izolyator's innovative products, in durable and easy to operate Russian high-voltage bushings.

We are proud that our trilateral talks initiative made way for start of the dialogue and exchange between two largest state grid corporations. Our company participation in that meeting is the best signal of trust to Izolyator plant and its products. Today we could not be any more confident in our abilities. We are open to equitable dialogue and mutually beneficial cooperation with partners on any continent. We will welcome any initiative on effort integration for the good of the global power industry. We invite you to cooperate - and the success will come to us all!



Andrey Shornikov, Sales Channel/Leader in sales department of Izolyator

India – Russia: a new level of cooperation

INDIAN START

With the positive perception of the energy market conditions in India Izolyator management planned a visit to the state-owned PowerGrid Corporation of India Ltd (PowerGrid). Izolyator turned to Dr. Ashok Singh for help in organizing a high-level visit and received all necessary support in required format.

MAKING CONTACT

The visit to India took place in March 2014. Izolyator's 1st Deputy CEO, Commercial Director, Ivan Panfilov, brought the following agenda to India: corporate presentation and product range and a wide specter of technical, commercial and organizational issues of mutual interest.

Thus, a firm fundament was laid for taking the talks further with ultimate purpose to form partnership.



I.D. Panfilov and Dr. Ashok Singh (Delco Infrastructure Projects Limited) March 2014



PowerGrid's Invitation

Izolyator representatives paid a repeated visit in June 2014 and brought a more representative delegation consisting of:

Ivan Panfilov, Sales Director and First Deputy CEO and Andrey Shornikov, Area Sales Manager.

During the talks the sides went into details with terms and conditions of Izolyator's future tender bids for the supply of high-voltage bushings for PowerGrid's needs. The starting condition was a comprehensive audit of Izolyator company in all aspects of its operation. In the result of the talks, the parties agreed to start preparations for PowerGrid representatives' visit to carry out the audit.

Besides Izolyator representatives visited Bharat Bijlee Limited and EMCO Limited – power transformers manufacturers based in Mumbai. In the course of talks top management of the plants expressed interest in high quality innovative Izolyator products and development of partnerships.



COMPANY AUDIT



On 17th of June, the PowerGrid auditor team arrived at the plant. It consisted of:

Mr. Velicherla Govinda Rao, Deputy General Manager; Mr. Mahavir Prasad Rathore, Chief Manager (F & A);

Mrs. Sruti Mishra, Chief Manager (Contract Services). The auditors were accompanied by Dr. Ashok Singh of

DELCO. An in-depth audit of the en-

tire production process and

testing cycle of high-voltage bushings lasted several days. A thorough audit of title and financial documents as well as referrals and results of the previous audits was accomplished.

MEETING BETWEEN FSK UES, POWERGRID AND IZOLYATOR



ves of PowerGrid and Izolyator at FSK UES JSC HQ

VISITING **FSK UES FACILITIES**

PowerGrid auditing team visited three FSK UES facilities that operate Izolyator-made 500-750 kV HV bushings. The 7-year span of operation with good

statistical figures received a high appraisal from the auditors and served a convincing evidence of high quality and reliability of Izolyator products.



RESULTS OF THE AUDIT

The key achievement of the audit and subsequent talks with the Indian side is Izolyator's recognition as reliable partner and the

status of an authorized supplier of high-voltage power-engineering equipment for PowerGrid's needs.

Izolyator has become the first Russian company granted with such a high status from Power-Grid Corporation of India Ltd.

RESULTS



The trilateral meeting between PowerGrid, FSK UES and Izolyator took place at the FSK UES Head Quarter on June 18.

The sides discussed high-voltage bushings operation at transformer substations owned by FSK UES and interaction aspects with Russian manufacturers of electrical equipment. FSK UES provided PowerGrid with official references on all types of Izolyator-made high-voltage bushings with RIP and OIP insulation installed at FSK UES facilities in the last 30 years.

OF THE TENDER

The success of the audit and received status of an authorized supplier to PowerGrid made way for Izolyator to participate in the open tender for the supply of more than 215 bushings rated for 420 kV (corresponding to the 550 kV voltage class in Russia) and compete with the world's leading

OVERALL RESULTS

end Izolyator was announced the first runner-up to the winner in HV bushings with RIP insulation category. No other Russian company has ever achieved these results on the Indian energy equipment market yet.

manufacturers of high-voltage equipment. At the

The most prominent achievement and prospective result of our work is that it opens a way for dialogue and sharing experience between the Russian-based Federal Grid Company and the Indian based PowerGrid Corporation of India Ltd. Both sides expressed their interest and willingness to develop this dialogue between Russia and India

through an open exchange of experience in the field of transmission and distribution of power, operation of power-engineering equipment and innovative development of large-scale energy systems.

Izolyator expresses its gratitude to the parties who took part in the talks.



VISIT PREPARATION **TO INDIA IN DECEMBER 2014**

As a natural outcome of intense contacts during the year and a continued progress in state-to-state relations between India and Russia, a joint FSK UES and Izolyator visit was agreed with top management of Indian partners.

The members of joint delegation

FSK UES JSC:

Kirill Alexandrovich Lunin, Head Technology R&D for Electrotechnical Equipment

Andrey Nikolaevich Zhukov, Chief Engineer on Production Assets Management

Izolvator ISC:

Ivan Dmitrievich Panfilov, Sales Director, 1st Deputy General Director

The agenda of the visit included high-level meetings at Power-Grid, generating company NTPC Limited, HV OEMs Transformers & Rectifiers (India) Ltd and Bharat Heavy Electricals Ltd (BHEL), and construction company Amrapali Group.

POWERGRID COMPANY

पावरग्रिड

Russian delegates met PowerGrid Executives at the Headquarter on the 11 December 2014 – their first day in India.

FSK UES and PowerGrid delivered informative and detailed presentations that lead to an open exchange of opinions and mapping priorities for future cooperation.

Following up the Russian delegation visit, PowerGrid company forwarded a thank you letter addressed to FSK UES JSC that expressed interest to continue dialogue and intention to sign a frame document on interchange of experience between the two sides.

transfor Meeting with Transformers & Rectifiers (India) Ltd. Top-management

BHEL representatives at the meeting:

Rajeev Kumar Gpta, COO for Inter-

S.Raj Sabapathy, MD Ceramic Busi-

Purushotham C.N., 1st Deputy MD

Sanjay Saha, Deputy COO for Inter-

Dinpankar Guin, Responsible COO

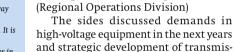
JSC of a list of suitable for BHEL needs

(CBU-Marketing & Planning)

BHEL PLANT

BHEL designs, manufac tures, 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.



equipment.

ness Unit

national Operations Tej Prakash, CEO

national Operations

sion and distribution systems. The parties agreed on continued cooperation and submission by FSK UES



Transformers & Rectifiers (India) Ltd founded in 1994 is an electric equipment manufacturer of a broad range of transformers both for domestic and international markets.

BHEI

The plant was represented by: Jitendra Mamtora, Chairman Vinod Masson, Director on Strategy

Ashwani Sharma, Chief Executive Officer The three sides covered a number of issues at the discussion:

• FSK UES JSC corporate presentation and an overview of power transmission and distribution systems in Russia

• demand for high-voltage equipment in the 15 year prospective

• areas of strategic growth for power transmission and distribution

and a number of other topics of interest. Corresponding records of the meeting and follow-up letters were sent to FSK UES JSC.







NTPC Limited Talks

GENERATION COMPANY NTPC LIMITED

NTPC Limited is the largest state-owned energy company established in 1975 with $a \ purpose \ of \ accelerating \ development \ of$ power economy in India. Overall installed capacity of the power plants including joint ventures corresponds to 43128 MW. The company set a target of 128000 MW of total installed capacity by 2032 which will come from diverse sources of energy: 56% – coal, 16% – natural gas, 11% – nu clear energy, 17% – renewable energy.



NTPC Limited was represented by Mr. A.K. Jha, Technical Director.

The sides started with organizational structure of the Indian company with 86% shares owned by the State. In the course of discussion, the Russian delegates learned about the decision making system and operation principles in NTPC Limited and total generation figures in the country.

An active exchange came up when the sides shared experience and opinions on related sectors development and cooperation aspects between companies of Russia and India.

№ 4 (4), 2014



CONSTRUCTION COMPANY **AMRAPALI** GROUP

Amravali Grouv is one of

the largest construction

businesses in India managing

over 50 projects in industrial

and residential development,

healthcare, education, trade,

hospitality and other sectors.

The topics covered during Amrapali Group visit included current demands and issues of power supply to residential and industrial facilities, design and construction of medium and high-voltage grids. Besides, an important issue of coordination between designers of medium, high-voltage equipment and grid companies as well as relevant projects implementation was raised at the meeting.



Meeting major players on the domestic market in India not only shows good prospects for cooperation on business level meaning direct management contacts between FKS UES and leading Indian state corporations but also on government level in general.

Izolyator would like to thank all participants of the meetings.

A more detailed report on the cooperation set up with India in 2014 can be received from a special Izolyator edition #2/2014



Russia and Vietnam – strategic partnership

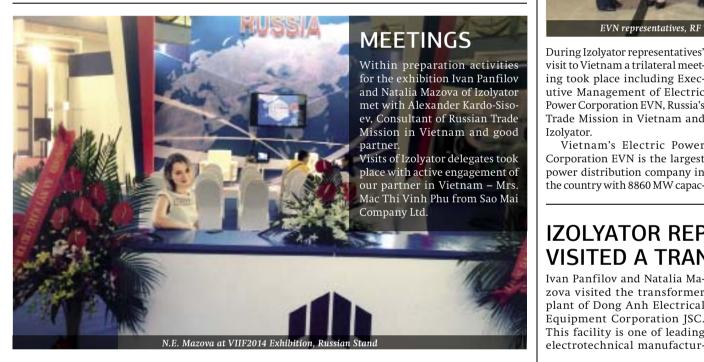
IZOLYATOR'S RICH **EXPERIENCE**

Russian Ministry of Industry and Trade named Vietnam as one of prospective partners for Power Transmission development in the coming years. Our positive results on Indian market laid foundation for establishing economic ties with Vietnamese counterparts.

INTERNATIONAL **INDUSTRIAL** FAIR IN VIETNAM VIIF 2014

Russian Ministry's of Industry and Trade invitation did not only include Izolyator but also listed over 30 corporate delegates from 14 regions of Russia uniting them under collective stand of the Ministry in Hanoi, Vietnam in October.

Russian exposition was highly appreciated by the Vietnamese partners.



IZOLYATOR VISIT TO THE MINISTRY **OF INDUSTRY** AND TRADE OF VIETNAM

In the frame of international exhibition, Ivan Panfilov and Natalia Mazova met Deputy Minister of Industry and Trade of Vietnam, Chief of Government negotiation delegation, Mr. Nguyen Cam Tu. The meeting covered principal areas of cooperation between Vietnam and Russia. The representatives

trade and economic relations and cooperation prospects for power industries of the two countries.

exchanged views on status of

Deputy

the countries that would allow for mastering innovative technologies and introduce Russian manufacturers to the market of Vietnam.

Izolvator

MEETING **EVN CORPORATION**



During Izolyator representatives' visit to Vietnam a trilateral meeting took place including Executive Management of Electric Power Corporation EVN, Russia's Trade Mission in Vietnam and Izolyator.

Vietnam's Electric Power Corporation EVN is the largest power distribution company in the country with 8860 MW capac-

ity and 19396 km network. The corporation expressed interest in development of power industry with high level of innovation and sharing experience between Vietnam and Russia with special focus on current projects on the

territory of the country. Intense interest to continue talks with both sides brought confidence in the high potential

of the continued dialogue. EVN Corporation adhered to promotion of innovative technologies and products on the market of Vietnam with strong recommendation to start direct dialogue with leading HV transformer makers, namely Dong Anh Electrical Equipment Manufacturing JSC and Thu Duc Electro Mechanical JSC.

IZOLYATOR REPRESENTATIVES VISITED A TRANSFORMER PLANT

Ivan Panfilov and Natalia Mazova visited the transformer plant of Dong Anh Electrical Asia. Equipment Corporation ISC. This facility is one of leading

ers of 500kV type equipment in Vietnam and Southeastern

As result of meeting at Dong Anh Electrical Equipment Corporation JSC, our colleagues confirmed their intention to use bushings with RIP solid insulation and requested to design a range of HV bushings according to requirements of the plant.





try and Trade highlighted the importance to increase cooperation and expressed interest in sharing experience between

tive of The Ministry of Industry and Trade of Vietnam to develop intense contacts and trade.



Representatives of transformer plant, partners in Vietnam, Izolyator representatives

SUMMARY ON THE **BUSINESS PROSPECTS**

Russia and Vietnam's cooperation on the government level opens ways for active engagement in business projects in various directions including energy security and regional integration projects.

Izolyator believes that continued dialogue with Vietnam with The Ministry of Industry

and Trade, Electric Power Corporation EVN, Dong Anh Electrical Equipment Corporation JSC will remain a prominent growth factor for the power industry in the coming years.

As result of meetings, all sides expressed high degree of interest in continued cooperation and expansion of

contacts between Russia and Vietnam.

We would like to send our kind regards and thank all the participants and partners.

A more detailed report on the cooperation set up with Vietnam in 2014 can be read at a special Izolyator edition #1/2014



Direct Speech



DEAR COLLEAGUES!

European Union remained our most important overseas destination in 2014. During the year an active work continued with such companies as Alstom (France. Switzerland), Siemens (Germany), Crompton Greaves (Hungary, Belgium), Kolektor (Slovenia), Hyundai Heavy Industries Co (Bulgaria) and other prominent European makers of transformer equipment. The talks resulted in an order from Alstom Grid AG for supply of 110 kV bushings for switchgear. Besides, we have started cooperation with Siemens and actively work on DC bushings project presently.

Izolyator's main priority remains expansion on the global market and long-term cooperation with grid companies, transformer manufacturers and other partners all around the world.

Based on positive results with Indian market, Izolyator management decided to expand cooperation to other countries, such as Vietnam.

Our strategic plan for 2015 entails partnerships development in South-Eastern Asia and Europe and further expansion in new regions.

We are sending kind regards to all our partners and wish to prosper in the coming year!

Natalya Mazova, Sales Channel Leader

Expanding global market presence

ALSTOM: PARTNERSHIP OFFICIALLY CONFIRMED

VISIT TO ALSTOM'S PLANT IN AIX-LES-BAINS. FRANCE

In February 2014, I.D. Panfilov, 1st Deputy General Director of Izolyator, visited Alstom's transformer plant with a group of colleagues in Aix-Les-Bains, France.

The group included: P.V. Kiry-

ukhin, Deputy Chief Designer,

and N.E. Mazova, Sales Channel

Leader. The visitors were welcomed

- by Guillaume Chipon, Procu-
- rement Dpt Carole Meslier, Tendering Dpt
- Jeremy Ravel, Design Dpt Izolyator presented the plant

and product range to the French counterparts and discussed technical and commercial aspects of cooperation. We wish to thank Alstom for invitation and welcome.



IZOLYATOR PLANT IS AN OFFICIAL SUPPLIER

TO ALSTOM GRID AG

ALSTOM

In September 2014, Izolyator received status of official supplier of 110kV HV bushings to Alstom Grid AG (gas-insulated switchgears)

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Official supplier to Alstom Grid AG letter

SIEMENS: COOPERATION EXPANDING **VISITING SIEMENS EXCURSION IN IZOLYATOR** AG PLANT FOR PROCUREMENT MANAGER **IN NURNBERG** OF SIEMENS AG

SIEMENS

In September 2014, Stefan Wagner, Global Commodity Manager Bushings & Tap Changers Transformers, visited Izolyator plant. The guest was acquainted with modern technologies of production and testing of HV bushings and new solutions increasing their reliability of ease of operation. The tour of the plant was arranged by P.V. Kiryukhin, Deputy Chief Designer, A.A. Shornikov, Channel Sales Leader, Ya.O. Sedov, Marketing Executive. The sides discussed plans of further cooperation.



VISITING SIEMENS TRANSFORMERS LTD.

Procurement Manager of Siemens Concern (Global Commodity Manager Bushings & Tap Changers Transformers).

In February 2014, I.D. Panfilov,

1st Deputy General Director of

Izolyator, visited Alstom's trans-

former plant with a group of col-

leagues in Nurnberg, Germany.

by Stefan Wagner HV bushings

The visitors were welcomed

ation and visit more transformer plants within Siemens concern. We wish to thank Siemens AG for invitation and welcome.

Izolyator presented the plant

and product range to the col-

leagues at Siemens plant and ex-

changed recent information on

markets of power transformers

and bushings. The sides reached

an agreement to continue cooper-

IN VORONEZH

VISITING SIEMENS **TRANSFORMERS SPA,** TRENTO, ITALY

ens AG facilities in Nurnberg (sou



In August 2014, I. D. Panfilov, 1st Deputy General Director, visited Siemens Transformers S.p.A.manufacturer of power transformers in the city of Trento, Italy.

The visit business helped to establish contacts and plan further cooperation. We wish to thank Siemens Transformers S.p.A. for invitation and welcome.



In October 2014, M.I. Zagrebin, Head of OEM Section, visited Siemens Transformers Ltd., a daughter company of Siemens Concern that manufactures power transformers in the city of Voronezh. Izolyator's representative acquainted himself with the plant and discussed nearest cooperation prospects. We wish to thank Siemens Transformers Ltd for invitation and welcome.



JJST transformateurs

ELEKTROENERGIEN

SISTEMEN

DEEPENING

KNOWLEDGE

THEIR

event.

Support of Izolyator, made a report "New technical

solutions in 10-750 kV bushings designs. Diagnos-

tics and trouble-shooting of insulation condition".

from Belarus received detailed answers to their

questions. We would like to thank co-organizers

During question-answer session, the colleagues

OPERATOR JSC:

SPECIALISTS ARE

In May 2014, Izolyator company ran a seminar

for technical specialists of Elektroenergien Sis-

temen Operator JSC, a daughter company of

National Electric Company in Bulgaria, Sofia.

The seminar was organized with support of Si-

ana Electric Ltd. - supplier of power equipment

to industrial sector in Bulgaria. P.V. Kiryukhin,

Deputy Chief Designer, and N.E. Mazova, Sales

Channel Leader, represented Izolyator at the

cigré

JST TRANSFORMATEURS: ON THE WAY TO LONG-TERM PARTNERSHIP

In February 2014, Izolyator representatives visited JST Transformateurs producing power transformers in the city of Lion, France.

N.E. Mazova, Sales Channel Leader, was among Izolyator delegates who were welcomed to the plant by:

Marie-Sylvie Hedegaard, Procurement Director and Jean-Michel Garon, Quality Dpt expert. Izolyator presented its product range to the new member of procurement team in JST Transformateurs and discussed a number of joint events in 2014.

We would like to thank JST Transformateurs for warm welcome.

DISCUSSING PLANS

In May 2014, P.V. Kiryukhin,

Deputy Chief Designer, and

N.E. Mazova, Sales Channel

Leader, visited Hyndai Heavy

Industries Co. Bulagaria that

produces power transformers

in Sofia. The receiving side

design Dpt Engineer

A. Genchev, Transformer

were:

HYUNDAI:



📥 HYUNDAI

Yu. Ivanov, Commodity Dpt

The sides exchanged infor-

mation on recent power trans-

former and bushing markets development and discussed

plans for cooperation. We wish

to thank Hyundai Heavy Indus-

tries Co. Bulgaria for invitation

Trader

and welcome.

IMEFY S.P.A.: FIRST STEPS

In August 2014, I.D. Panfilov, 1st Deputy General Director, Commercial Director of Izolyator, visited IMEFY S.p.A. transformer plant in Spain. He established



business contacts and set plans for joint business development with the colleagues. We would like to thank IMEFY S.p.A. for invitation and welcome.





Participants receive detailed information on

We wish to thank National Electric Company

Izolyator product range with emphasis on design

and operation features of HV bushings and new

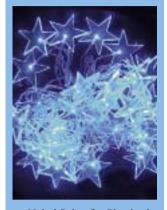
solutions to increase their quality and reliability. Our representatives discussed cooperation

represented by Elektroenergien Sistemen Opera-

tor JSC and also Siana Electric Ltd. for invitation

prospects with Siana Electric Ltd. partners.

The world's scientific community finally acknowledged LED a great invention



Nobel Prize for Physics in 2014 was awarded to Japanese scientists Isamu Akasaka, Hirosi Amano and Sudzi Nakamura for creation of blue light emitting diodes, as reported by Nobel Prize Committee of the Swedish Academy of Sciences. Blue diodes can uninterruptedly glow for up to 100 000 hours. Considering that one quarter of energy in the world is spend on lighting the potential economy is colossal.

Sudzi Nakamura invented blue LED in 1990 when working for Nichia Chemical Industry. Soon he moved to USA where he became Professor at California University in Santa Barbara. Source: PR department of

AtomSvet Ltd.

E Latvenergo

BELARUS: DIRECT CONTACT WITH POWERMEN

Izolyator co-organized a seminar "Track record of operation, diagnostics and reliability increase of power equipment 10-750 kV" in Minsk in November 2014.

- The seminar co-organizers:
- Energomash JSC (Yekaterinburg) UralElectrotyzhmash, Yekaterinburg, Russia
- Scientific-production enterprise Bolid, Novosibirsk. Russia

CIGRE: AT THE FRONT EDGE OF THE WORLD SCIENCE



Izolyator represented by A.Z. Slavinsky, Chairman of the Board of Directors. was delegated to-

INISTRY OF ENERGY OF THE RUSSIAN FEDERATION

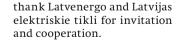
of the seminar for cooperation.

and seminar organization. LATVENERGO:

In April 2014, Izolyator held a seminar for technical specialists of Latvenergo Concern organized at the premises of the grid company Latvijas elektriskie tikli in Riga, Latvia.

A.Z. Slavinsky, Chairman of the Board of Directors, K.G. Sipilkin, R&D Director, represented Izolyator.

specialists received answers to their questions at a panel discussion. We would like to



QUALITY IEC **MANAGEMENT:**

HIGH-LEVEL MEETING Western Project JSC, Minsk, Belarus A.V. Mashinistov, Head of Production Technical

The colleagues made a report "Bushings with RIP insulation and their operation features. New developments in quality and reliability areas". The presentation was followed by Izolyator's corporate video demonstration. Latvian

IEC: WORK

gether with Russian National Committee CIGRE and took part in the 45th CIGRE session in Paris on 24-29 August. International Council on Electric Grids is the biggest non-governmental power industry organization in the world.

SIGRE was established in France in 1921 and is a scientific-technical authority that unites researchers and power specialists from all-around-the-world and influences greatly on strategic planning for whole industries across many countries. Izolyator is a member society of CIGRE Russian Committee.

The 45th Session offered the following agenda: technical exhibition and conference with plenary sitting and research committees' sessions. Russian businesses were exhibited at a collective stand organized by Ministry of Energy on the RF Government instruction.



FOR THE FUTURE **OF POWER INDUSTRY**

V.N. Ustinov, Deputy Quality Director of Izolyator, and A.A. Shornikov, Sales Channel Leader, joined Russian national IEC committee delegation to take part in the second sitting of work

group SC36A JMT5 on review of IEC 60137-2008 publication "insulated bushings for alternating voltage classes above 1000V". The sitting was held on 15 April 2014 in Geneva, Switzerland,





QUALITY APPROVED

In April 2014, Izolyator passed the 2nd compliance audit for EN ISO 9001:2008. TUV PROFI CERT Germany carried out the audit.





MARKETING

Direct Speech



DEAR **COLLEAGUES!**

In 2014, we bolstered our marketing activities and carefully selected priorities for business development on the European market. We set up contacts with grid companies of Europe. To support those activities we created Izolyator account profile in hard copy. The brochure presents the most important information on the company profile, mission, history and its products.

We made contact with Marvin Zimermman, Editor of INMR magazine dedicated to power equipment and received invitation to take part in the cognominal exhibition in October 2015 after first writing and sending an article for the edition.

One of the most interesting challenges of the year I can name demand volumes forecasting on the regional markets for HV bushings with hard RIP insulation and oil-in-paper insulation. We structured the collected data and shared with our colleagues in India.

We are in regular contact with our European colleagues clarifying demand in our products and plans for the next year.

I would like to invite you to share experience and opinions on cooperation as it makes our communications targeted and effective.

Cepos-

Yaroslav Sedov, Marketing Executive of Izolyator

We stand for openness with partners

ECONOMIC INDICES









%

SHARE OF EXPORTS IN SALES VOLUME



DESIGN, PRODUCTION, TESTING

Design Office

velopment of the new designs of Hill bushings creation of up to date manufacturing technologies · performance of research and de modernization of the mass products



Production

- + perfect technological equipment from the world's best suppliers

 patented technology for RP-insulation production
- patented technology for external polymeric insulation production
- availability to manufacture internal insulation up to 12 m length, 729 m in diameter

Test Center

- · AC tests up to 1200 kV · OC trists up to ±1600 kV
- full- and chopped wave lightning impulse texts 1,2/50 ms
- switching impulse tests 256/2500 ms
- insulation materials and prototypes tests accreditation by the Federal Agency on Technical Regulating and Metrology, acc. to EC 17025-2006 450 / IEC 17025 (2001)

Service Centre

- highly skilled maintenance
- + complex diagnostics
- arranty and post-warranty service and repairing of HV bushings
- · consultancy for the customer technical service



ing: Izolyator profile

FORUM RUGRIDS-ELECTRO 2014







Izolyator took part in the 1st international power energy forum Rugrids-Electro 2014 organized by Rosseti JSC in Moscow on 15-17 October 2014. The forum received support from:

The Council of Federation of the Federal Assembly of the Russian Federation, Ministry of Energy of the Russian Federation.

Izolyator exhibited: • GKTPIII-90-40,5/1000 (200) IVU E.686351.275-02 (for voltage 35kv with RIP insulation for power transformers) bushing

110 kV RIN-insulated bushing for power transformer O.M. Budargin, General Di-

rector of Rosseti JSC, visited Izolyator's booth. A.Z. Slavinsky welcomed the high-ranking guest with innovative designs of the company. In the course of meeting, the parties discussed cooperation

development steps between Rosseti JSC and Izolyator. The exhibition brought a great many useful contacts with representatives of Russian and foreign power industry companies.



MARKETING

CWIEME **EXHIBITION** IN BERLIN 2014

I.D. Panfilov, 1st Deputy General Director and Commercial Director, K.G. Sipilkin, R&D Director and N.E. Mazova, Channel Sales Leader of Izolyator, visited

后作器

会电力厅业委员会



CWIEME 2014 in Berlin on 24–26 June 2014. CWIEME Berlin is a yearly exhibition and conference for suppliers of coils, motors, transformers and insulators.

EP CHINA 2014 EXHIBITION

K.G. Sipilkin, R&D Director and A.A. Shornikov, Channel Sales Leader of Izolvator visited EP China 2014 exhibition, which was open in Beijing, China on 22-24 October 2014.

There are biggest power companies and government organizations in China among sponsors and organizers of the exhibition. EP China promotes technologies and experience sharing between Chinese and overseas companies and it gives a big positive effect to implementation of advanced foreign technologies and equipment in power industry of China.

状业参



Our representatives held a number of meetings with Chinese partners, such as Banks Huang, Export Dpt Manager Liling HUAXIN Insulator Technology Co.Ltd. Our colleagues reached agreement with Chinese partners to continue business contacts on a long-term basis.

Floating Solar Power Station



South Korean Solkiss company (Angsong city) is completing construction of the first floating rotary solar power station in the world. Octagonal 7500 square meter platform holds 1600 modules. The capacity of this experimental station will be 465kW an amount sufficient for power supply to 250 households, says APR.PRESS with reference to Korean media. There is a known fact that a solar station is effective at low temperatures but the effectiveness drops with the rise of the temperature above certain values due to the heat radiating from the ground. Since water can never warm to the comparable with earth values in summer, estimated effectivity of a floating station is 22% higher than that of a stationary land one. The floating station is designed to weather 50 mps winds and water level changes. Based on materials by Vasilina Samoilenko, APR PRESS

Experimental superconductive power cable



A superconductive power cable in the city of Essen, Germany



A.A. Shornikov (left) and K.G. Sipilkin at EP China Exhibition in Beijing

POWER **NETWORKS** OF RUSSIA 2014



A.Z. Slavinsky, Chairman of the and Energy complex at the



Board of Directors of Izolyator, visited XVIII International Exhibition Power Networks of Russia held in Moscow on 2-5 December 2014. The exhibition was organized with support of Ministry of Energy and Chamber of Commerce and Industry of Russian Federation. A series of meetings with partners took place among whom:

- Yu.A. Dementyev, Deputy General Director, Chief Engineer of Research Center of FSK UES JSC
- V.A. Dzhangirov, Head of Technical Regulation department of Power Institute named after G.M. Krzhyzhanovsky, Vice President of International Fuel and Energy Association, Deputy Chair of Committee on Energy Strategy and Fuel

- Chamber of Commerce and Industry of Russia
- K.N. Isaev, Director of Scientific production enterprise Electromash (Novocherkassk)
- V.I. Pososhkov, Director of Publishing House "Vsya Electrotehnika", Chief Editor of "Energoexpert" magazine
- V.V. Edelev, Project Manager of Electric engineering department of Power Standard Ltd.

The meetings involved information and opinion exchanges regarding power market tendencies, cooperation prospects and new initiatives discussion. All information obtained in the result of the exhibition visit will be used to form technical and marketing policies of Izolvator.

breakdowns. The experiment called AmpaCity was finished on 27 October and now the engineers are processing the data. Since 30 April, the three-phase coaxial 1 km long superconductive power cable transmitted 5 times more energy than a regular copper cable (approx. 20 mln kW/h) practically without losses. Such a conductor 10 000 V would replace an HV line of 110 000 V with regular copper cable bearing large losses on resistance.

Such cable application will allow for significant savings on ETL with freeing occupied land, simplifying power network and obsoleting gigantic transformer stations. Source: GIS-Profi, based on open internet sources.



МАРКЕТИНГ

POWER UZBEKI-STAN 2014 EXHIBITION

Izolyator took part in the 9th International Power Uzbekistan exhibition in Tashkent on 13-15 May 2014.

The official sponsorship of the exhibition was provided by:

Ministry of External Relations, Investment and Trade of Republic of Uzbekistan

State company Uzbekenergo JSC

Specialized Society Uzsuvenergo of Ministry of Agriculture and Water Management

Chamber of Trade and Industry of Republic of Uzbekistan

Representatives of various organizations of power industry of Uzbekistan and other Central Asian countries visited the stand of Izolyator company. The guests were introduced to new designs of Izolyator and a great many of contacts was established.



NEW CORPORATE VIDEO ABOUT IZOLYATOR

Izolyator produced a new video that presents the company, its history, products, technical facilities, key values and business figures and strategic plans. The movie is a dynamic, informative and structured story about history and success factors of one of the oldest electrical engineering companies in the country. Shots of historic documentaries succeed with the views of advanced last generation equipment from leading OEMs. In particular, viewers can follow through the process of creation of a modern high-voltage bushing from design to testing of the finished product. The plot is also complete with animated infographics and interviews of plant management. The video gives a clear and comprehensive understanding of Izolyator's development vector and a very important role it plays in the operation of systems of power generation, transmission and distribution.







Single picture from Izolyator vide



DOWER ENGINEERING

МАРКЕТИНГ

ASSOCIATION OF BUSINESS **COOPERATION TRAVEK:** ACTIVE INDUSTRY DEVELOPMENT

In 2014, Izolyator traditionally took part in XVIII, XIX and XX international scientific-technical and practical conferences organized by Association of business cooperation TRAVEK where specialists discussed development prospects of power industry and high-voltage equipment, diagnostics systems, intellectual power networks and many other topics of interest. The conferences were supported by Russian Academy

of Sciences, Academy of Electotechnical Sciences, Ministry of Energy, Ministry of Industry and Trade, Rossiiskie Seti JSC, FSK UES JSC.

Izolyator presented reports "High-voltage bushings for DC systems. Track record of design, manufacture and operation" (the speaker is Yu.V. Nikitin, Chief Designer), "Endurance test of RIP-insulated bushings. Influence of electric, heat, mechanic effects on long-standing

electrical strength. New in IEC requirements" and "Technical capabilities of Izolyator's testing center" (speaker - V.N. Ustinov, Deputy Quality Director).

The participants of the conferences worked out decisions that reflect main problems and development prospects of the industry that will be addressed to the state structures, Rossiiskie Seti JSC, FSK UES JSC and other organizations of Russian Federation.





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ENERGETIKA EXHIBITION 2014 IN SAMARA



Izolyator exhibited in 20th international exhibition Energetika 2014 in Samara on 11-14 February 2014. The company was represented by Alexander Alexandrovich Savinov, Head of Strategic Sales. 110kV HV bushing with RIP insulation and dry filling

(GKTIII-60-126/800, drawing IVU E.686352.303) deigned for power transformers was exhibited. The visitors acquainted themselves with recent technical solutions that ensure high reliability and ease of operation of HV bushings made by Izolyator. There was a

large number of business contacts established at the exhibition. We would like to thank Expo-Volga for invitation and exhibition organization. Our personal thanks to lead manager of Industrial Exhibitions of Expo-Volga -Nina Eduardovna Khachaturyan.

POWER INDUSTRY. ENERGY EFFICIENCY EXHIBITION, SARATOV





A.V. Mashinistov (left) demonstrates new Izolyator developments at Power Industry. Energy Efficiency 2014 in Saratov

Izolyator exhibited in 16th specialized venue with international scope Power Industry. Energy Efficiency 2014 in Saratov on 16-18 April 2014.

The official sponsors of the exhibition were:

- Ministry of Industry and Energy of Saratov region
- State Autonomous Institution "Agency for Energy Efficiency" of Saratov region

Oleg Nikolaevich Bakulin, Di-

rector on Partner Relations and Artem Vyacheslavovich Mashinistov, Head of Production Technical Support department represented Izolyator.

The company exhibited 35kV bushing with RIP insulation for power transformers (GKTPI-II-90-40,5/1000 (200), drawing IVU.E.686351.275-02).

Specialists of Interregional Distribution Company of Volga, Nizhnyaya Volga Company of Volga Grids, Privolzhye railway of RZD JSC, representatives of contracting, construction organizations visited Izolyator's stand.

The visitors learned about new developments of Izolyator plant and made many useful contacts.

We would like to thank Sofit-Expo center for invitation and exhibition organization. Our personal thanks to the project manager Ekaterina Alexandrovna Bryshkina.



INNOVATIONS

Direct Speech



DEAR **COLLEAGUES!**

2014 was not easy both for our company and our country. The changes that our economy underwent in the second half of the year inevitably influenced the power industry and our plant. On the one hand decrease of production output caused personnel layoffs (design office no exception), on the other hand new design and modernization projects volume did not change. That means a higher workload on the decreased team in order to meet plans and obligations.

- In short, we accomplished the following in 2014: All mass-produced bushings reconfirmed com-
- pliance to GOST 10693-81 and IEC 60137 (2008) requirements, certificates obtained
- Within product range diversification objectives an optic voltage transformer filled with transformer oil is designed and successfully tested
- 7 new bushing types for various voltage types are designed and transferred to mass production
- A new construction of measuring lead-out with insulated conductor is applied resulting in higher reliability of measuring device in general
- Rosstandard type approval certificate received for 35kV bushings with extra moisture-resistant hard RIN insulation for circuit breakers (currently these bushings go through qualification in Rosseti JSC)
- Design works were continued to create production technology RIN-insulated bushings for voltage types above 35kV
- At the same time our tasks for 2015 are no less ambitious and will require even bigger effort. Some of them are:
- Completion of 35kV bushings with RIN insulation for breakers compliance procedure with Rosseti ISC
- Elaboration of production technology of RIN insulation for bushings of higher voltage types Continued design and testing works on creation
- of dry design optical voltage transformer Re-entry of oil-in-paper technology bushings of
- 500 kV type and higher into production program Design and adaptation of bushings of all classes
- for their mass-production at join venture in India Design and production of custom bushings and
- a number of other tasks We are confident that we will fulfil all our ob-

ligations.

Junger

Achieving ambitious targets









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Yury Nikitin, Chief Designer of Izolyator

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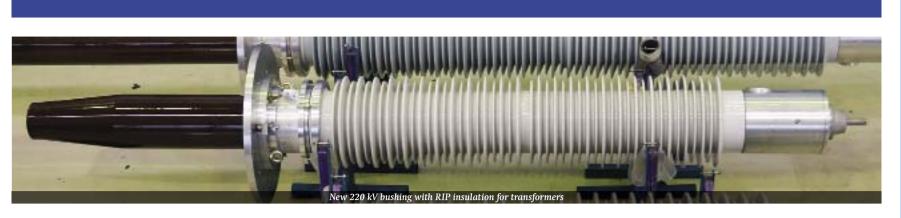
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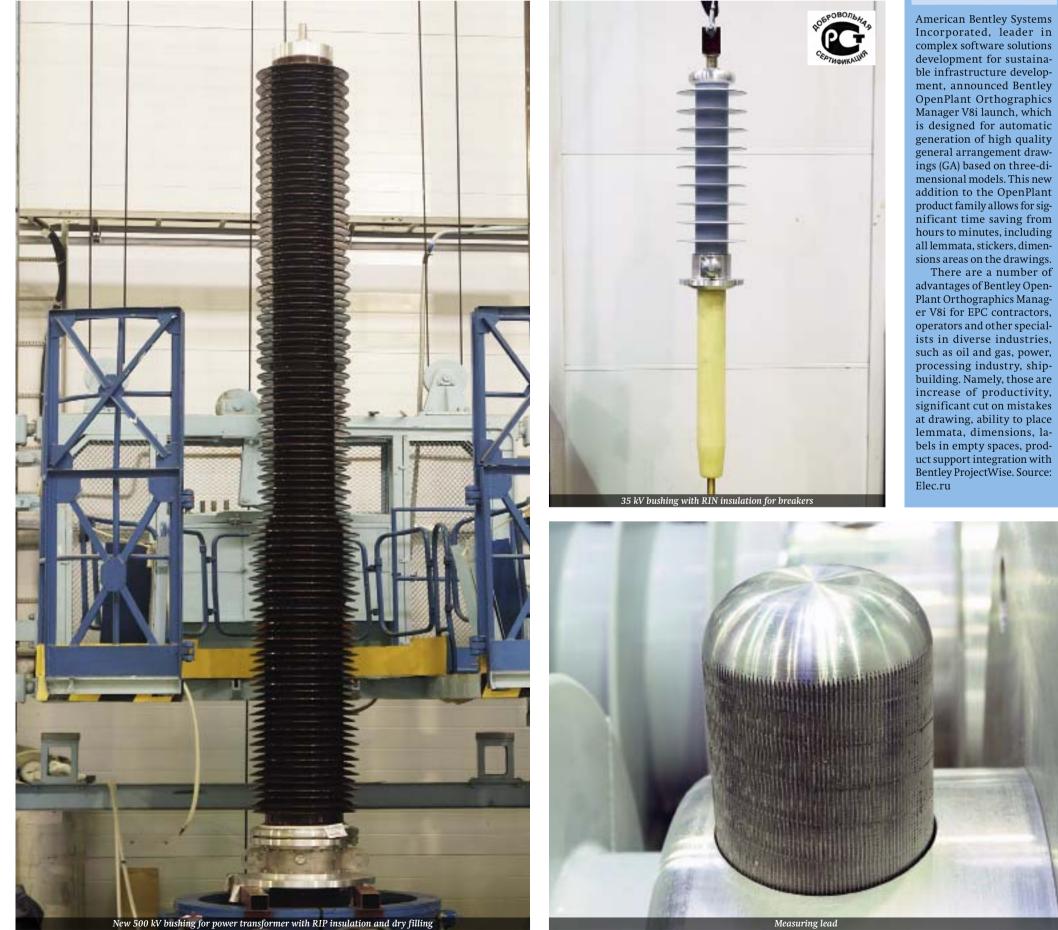
Rosstandard certificates for Izlolyator mass-produced bushings



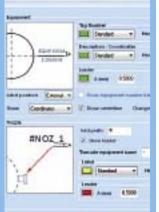
INNOVATIONS







Bentley Systems developed new software for making drawings in power engineering and other industries





PROFESSIONAL DEVELOPMENT

Direct Speech



DEAR COLLEAGUES!

Our corporate culture is based on education, professionalism and teamwork. Professional training based on modern training standards has strategic meaning for long-term success of the business.

In 2014, our company successfully ran a series of trainings for management and staff.

We developed an all-yearround program targeted at acquisition of adaptation skills in the ever-changing market conditions by all groups of employees. Results exceeded our expectations.

The training plan also entailed technical-professional training, in-service education, allied professional education and retraining.

In the coming year we will make people training for strategic projects achievement our priority.

Anna Skvortsova, HRD at Izolyator

Goal – professional skills development













PROFESSIONAL DEVELOPMENT







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6 June 119 years of Izolyator 22 December

Power Engineers' Day

Birthdays of famous electrical engineers

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20 January 1775 - Andre-Marie Ampere, one of electrodynamics founders
11 February 1847 - Thomas Alva Edison, multidisciplinary electric engineering inventor
18 February 1745 - Alessandro Volta, one of electrical science founders
14 June 1736 - Charles-Augustin de Coulomb, one of static electricity inventors
10 July 1856 - Nikola Tesla, electric machines and transformers inventor
14 August 1777 - Hans Christian Oersted, described magnetism of electricity
14 September 1847 - Pavel Nikolaevich Yablochkov, laid the foundation of electric lighting system
22 September 1791 - Michael Faraday, founding father of electromagnetic field concept



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