

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

IZOLYATOR

CENTURIES-OLD TRADITIONS – STATE-OF-THE-ART TECHNOLOGIES

№1(2)
January-March
2014

Publication by Izolyator Co.

www.mosizolyator.com

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Elected Fellow
of the RAEEES



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Exhibition
in Samara



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Communication
and Negotiation
Skills



The Company Today



Message from the Management



Strategy of Partnership

In the first quarter of 2103 we continued our policy of openness and active interaction with business partners to acquaint them with our latest achievements and ensure long-term and mutually-beneficial relationships.

Today, we elaborate and implement joint plans with major Russian-based and international energy sector companies, the world's leading transformer works and strategic industrial business groups.

No matter with whom we work, we always try to build a long-term partnership. In our opinion, this is the only type of relationship that can generate absolute trust and mutual understanding guaranteeing stability and mutual prosperity irrespectively of current market trends and fluctuations.

I can only confirm that this strategy of partnership will remain our general objective. We will be happy to cooperate with everyone who is interested in stable business relationships and fruitful joint activity for the benefit of the energy sector.

Alexander Slavinsky,
Doctor of Engineering
Chairman of the Board
IZOLYATOR Co.

UEC – A NEW LEVEL OF COOPERATION

In the course of a recent visit to IZOLYATOR Co. by a group of high-ranking representatives of United

Energy Company (owned by the Government of Moscow), the visitors toured the production facilities for

high-voltage bushings and discussed joint projects and prospects of further cooperation.



Our congratulations to Russian athletes who participated in the XXII Winter Olympic and XI Paralympic Games! To us, you are all an example of strong will, courage and commitment!

PANORAMA

Direct Speech



Our Experience – To The Energy Sector and Our Partners

Professional experience gained and accumulated by IZOLYATOR Co. over its entire history has always served the purpose of modernization and development in the energy sector as well as the establishing, strengthening and expanding long-term relationships with our business partners.

It's no secret that the most-efficient solutions are based on an optimal combination of accumulated knowledge and advanced ideas. This point is well reflected in our slogan Centuries-old traditions, state-of-the-art technologies that mobilizes all our experience and innovative potential towards technical progress and prosperity of our partners.

We sincerely thank all our clients, suppliers and other business partners and wish them more success in developing their businesses. For its part, IZOLYATOR Co. is always ready to do its best to make that happen!

Ivan Panfilov,
Deputy CEO, Commercial
Director IZOLYATOR Co.



Appointments



ALEXANDER SLAVINSKY ELECTED FELLOW OF THE RAEES



Alexander Slavinsky, Chairman of the Board IZOLYATOR Co. has been elected a Fellow of the Russian Academy of Electrical Engineering Sciences.

When visiting IZOLYATOR Co. last February, a highly-represent-

ative delegation of academicians took a close look at production technology of high-voltage bushings. It should be noted that as a company, IZOLYATOR Co. has been a corporate member of the RAEES since 2010.



Visit



TRAINING AT THE RESEARCH BASE

The strategic sales director of Izolyator Co. has visited the Saint-Petersburg-based Skill Upgrade Institute for the Energy Sector Employees.

During the visit, the parties discussed joint plans to organize Institute-hosted seminars for power engineering specialists to study the design and operation of new high-voltage bushings being made by Izolyator Co.

We thank the Institute for fruitful cooperation.

PANORAMA

Partners

A VISIT TO POWER MACHINES – TOSHIBA



Representatives from IZOLYATOR Co. have visited the Saint-Petersburg-based company Power Machines – Toshiba. High Voltage Transformers LLC. The IZOLYATOR Co. representatives toured the company and discussed cooperation opportunities for 2014.

We are grateful to Power Machines – Toshiba. High Voltage Transformers LLC for the invitation and the opportunity to get acquainted with the company’s manufacturing facilities.



World

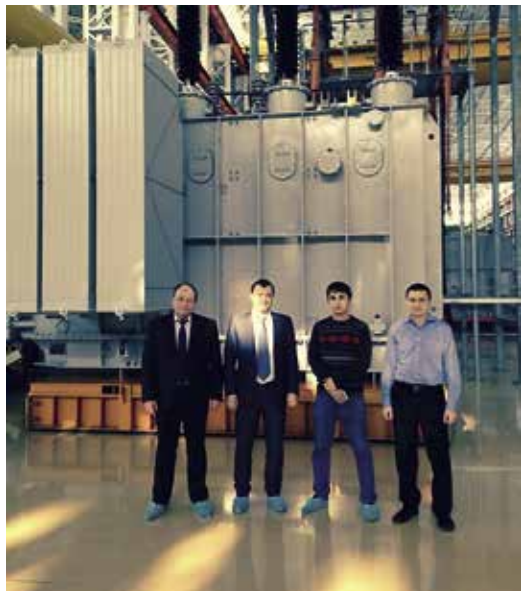


THE HOUR OF THE EARTH

The Hour of the Earth initiative was held across the world on 29 March 2014. This annual event, organized by the World Wildlife Fund (WWF) since 2007, is aimed at increasing public awareness of the climate change issue.

According to the Government of Moscow’s Fuel and Energy Department, during this year’s event, energy consumption in the city was down by 384 Megawatts allowing to save more than one and a half million rubles. Last year, the reported energy savings were in the order of 309 Megawatts.

Original publication by Commercant



GETTING ACQUAINTED WITH UTW

Representatives from IZOLYATOR Co. have visited the Ufa Transformer Works – a subdivision of the Elektrozavod Business Group. The IZOLYATOR Co. delegation had a meeting with the company’s acting Managing Director Y.P.Vertyakov. After that, the delegation toured the company and discussed possibilities for cooperation for this year.

We thank Ufa Transformer Works for the invitation and the opportunity to get acquainted with the company’s manufacturing facilities.



NUCLEAR FUSION ENERGY

Researchers from the U.S.-based Livermore National Laboratory for the first time have managed to achieve a 1% energy gain in the course of a controlled nuclear fusion reaction. It is reported that the experiment’s success was largely due to the use of powerful National Ignition Facility lasers.

No other laboratory in the world has ever been able to achieve a net energy gain before. While the energy gain is a mere 1%, it can be seen as a real breakthrough on the way to a virtually inexhaustible source of energy.

Original publication by Commercant

Perspective

LOOKING FORWARD TO INDIAN TENDERS



Deputy CEO, Commercial Director of IZOLYATOR Co. I.D. Panfilov has visited Power Grid Corporation of India Limited.

During the visit, he met with a number of the Indian company’s top managers and partners, including Hare Ram Singh (M.D. DELCO), Dr. Ashok Singh (CEO M4 Biomedica India) and Amarjeet Kumar Singh (Director DELCO). The negotiations, aimed at further development of mutually-beneficial cooperation, were a success and resulted in an arrangement paving the way for IZOLYATOR Co.’s participation in tenders for the supply of high-voltage bushings.

We thank Power Grid Corporation of India Limited for the invitation.



EVENTS

Direct Speech



Knowledge Is a Guarantee of Smooth Operation

In the first quarter of every year, IZOLYATOR Co. organizes traditional training sessions using both its own facilities and external training centers at the invitation of our consumers. During these sessions, technical staff from our customer organizations develop an understanding of our technical policy, get acquainted with the latest developments and improvements in the design of our high-voltage bushings, and obtain professional advice on all relevant matters of interest.

The training sessions pay special attention to ensuring strict compliance with the requirements stated in the operation manuals and preventing typical errors made by operating staff in the course of installation, testing and operation of high-voltage bushings.

Undoubtedly, direct communication with our consumers is extremely useful for us. We obtain the most-important thing – customers' feedback about our products from product end-users.

I would like to thank our partners for their positive view of these joint training sessions as well as for the high level of their organizational and technical support. We hope that our partners will be interested in holding similar events in the future and in further development and strengthening of our business relationships..

Oleg Bakulin,

Partners Cooperation Director –
Head of Sales Dept.
IZOLYATOR Co.



Conference

XVIII CONFERENCE OF TRAVEK ASSOCIATION IN MOSCOW



IZOLYATOR Co. took part in the XVIII conference organized by the International Association for Business Cooperation in Moscow and titled «Development Prospects for Electric Engineering and High-Voltage Electrical Equipment. Energy Efficiency and Energy Saving».

During the conference, IZOLYATOR Co.'s Chief Designer Y. V. Nikitin delivered a report providing insight on the company's experience in development, manufacture and operation of

high-voltage bushings for DC systems. IZOLYATOR Co. is a corporate member of the TRAVEK Association, with A. Z. Slavinsky holding the position of the Association's vice-president.



Seminar

SEMINAR AT TATENERGO



Representatives from IZOLYATOR Co. have conducted a number of training seminars for technical staff at Generating Company LLC and Network Company LLC, subsidiaries of the Kazan-based Taten ergo LLC.

The seminar involved a presentation of IZOLYATOR Co. and its products as well as a discussion of important issues relating to operation and diagnostics of high-voltage bushings.

We thank the organizers for the invitation and the great job they have done.

TRAINING FOR BASHKIR ENERGY SECTOR SPECIALISTS



IZOLYATOR Co. took part in a seminar organized for engineering staff at Bashkir Generating Company LLC (Inter RAO Group) and Bashkir Network Company LLC (a subsidiary of Bashkir Power Grid Company JSC).

The seminar was held on 19 February 2014 at the Ufa-based Bashkir Energo training center.

The event involved a presentation of new products offered by IZOLYATOR Co. and professional advice on important issues relating to operation and diagnostics of high-voltage bushings.

We thank the organizers for the invitation and the great job they have done.



EVENTS

Meeting

TECHNICAL BOARD AT TYUMENENERGO



IZOLYATOR Co. took part in a session of the Technical Board at Tyumenenergo JSC, a subsidiary of Rosseti JSC. The meeting was held in Surgut on 28 January 2014.

The meeting involved a discussion of issues relating to operation and diagnostics of high-voltage bushings.

We thank the organizers for the invitation and all the work they have done.



MEETING IN THE FAR EAST



IZOLYATOR Co. took part in a meeting titled «High-voltage Bushings with RIP-Insulation Made by IZOLYATOR Co.» held in Blagoveshchensk and organized by the Far East Power Distribution Network Company (a company within RAO Eastern Energy Systems).

The meeting, concentrated on issues relating to operation and diagnostics of high-voltage bushings, resulted in an agreement on closer cooperation.

We thank the organizers for the invitation and all the work they have done.

Exhibitions



POWER ENGINEERING

POWER ENGINEERING-2014 EXHIBITION IN SAMARA

IZOLYATOR Co. took part in the 20th international exhibition Power Engineering-2014 in Samara.

In the course of useful discussions, attendees had an opportunity to learn about the latest technical solutions ensuring high reliability and simplicity of operation of high-voltage bushings.

Direct Speech



Dear Colleagues!

I would like to express my appreciation to all colleagues and partners of IZOLYATOR Co. You keep overcoming with honor all difficulties that hamper further development of the modern energy sector and make a daily contribution to maintain the industry's smooth functioning.

For many years, IZOLYATOR Co. has been a long-term supplier of high-voltage bushings to one of the pillars of the Russian economy – Federal Grid Company of Unified Energy Systems JSC. The contribution being made to the industry's development and professional attitude to their job demonstrated by FGC UES JSC employees despite all the hardships of 2013 (in particular, the reorganization of the energy sector and implementation of a large-scale government cost-cutting program resulting in reduced government spending) are difficult to overestimate.

IZOLYATOR Co. views FGC UES JSC as a strategic partner and highly appreciates the honor of being selected as their supplier of high-voltage bushings. The company's priority goal now is to improve interaction with the FGC UES JSC branches to a level allowing each FGC UES JSC employee to feel, at any time, the support from the leading Russian-based manufacturer of high-voltage bushings.

Alexander Savinov
Strategic Sales Director
IZOLYATOR Co.



Business



A VISIT BY LENENERGO REPRESENTATIVES

On 23 January 2014, IZOLYATOR Co. was visited by representatives from Lenenergo JSC, a subsidiary of Rosseti JSC.

The visitors watched a film about IZOLYATOR Co. and toured the company's production facilities making a due note of the state-of-the-art equipment being used in the manufacture of high-voltage bushings.

The parties expressed their desire to develop partner relationships on a mutually-beneficial and long-term basis.



A VISIT FROM A MEMBER OF THE CENTRAL TENDER COMMITTEE OF MUPGC

On 22 January 2014, IZOLYATOR Co. was visited by I.A.Sukhanov, director of the Logistics & Procuring Department, member of the central tender committee of Moscow United Power Grid Company JSC, a subsidiary of Rosseti JSC.

The visitor toured the production site for high-voltage bushings and discussed current cooperation plans with IZOLYATOR Co. management. The business visit resulted in an agreement to develop partner cooperation on a mutually-beneficial and long-term basis.

meetings

A VISIT BY FGC UES JSC REPRESENTATIVES

On 24 February 2014, IZOLYATOR Co. was visited by representatives from Federal Grid Company of Unified Energy Systems JSC, a subsidiary of Rosseti JSC.

The visiting delegation toured the production facilities for high-voltage bushings and discussed plans for 2014 and partner cooperation prospects with IZOLYATOR Co. management.



JOINT PLANS WITH NORTH WESTERN BPG

A. A. Savinov, strategic sales director at IZOLYATOR Co. has visited North Western Bulk Power Grid (North Western BPG), a subsidiary of United Energy Systems LLC. The visit focused on opportunities for partner cooperation in 2014. We thank North Western BPG for hospitality.



A VISIT FROM URALELECTROTYAZHMASH REPRESENTATIVES



On 28 February 2014, IZOLYATOR Co. was visited by I. V. Ptitsyn, the managing director of the Yekaterinburg-based ZAO Energomash – Uralelectrotyazhmash and S. B. Troitski, the company's deputy sales manager.

The visitors toured the production facilities for high-voltage bushings and discussed prospects of further business cooperation.

INTERNATIONAL ARENA

Direct Speech



Europe as a Priority Development Vector

Analyzing the current development trends seen on the core high-voltage bushing markets, we should pay special attention to the European consumers represented by transformer works and their potential customers – major power grid companies.

Successful presence on this geographical market is a ticket to the elite club of industry majors, a guarantee of high product quality confirmed by growth in sales volume and the number of preliminary contacts.

Our long-term objective is to increase exports to 30% of the total company output, relying on modern market survey techniques, customer feedback, extensive technological capability as related to the production of high-voltage bushings, new designs, the use of new materials and unquestionably strict compliance with customers' requirements and lead time.

I'm absolutely positive that a growth in the company's exports will ultimately bushing to an overall growth in the sales volume.

Natalia Mazova
International
Operations Manager
IZOLYATOR Co.



Partners



JOINT ACTIVITIES WITH JST TRANSFORMATEURS

On 24 February 2014, a delegation from IZOLYATOR Co. visited the JST Transformateurs transformer works in Lyons, France.

The delegation delivered a presentation about IZOLYATOR Co. to new staff at JST Transformateurs purchasing department and discussed the possibility of joint activity in 2014.

We thank JST Transformateurs for the invitation.



GETTING TO KNOW ALSTOM

Deputy CEO, Commercial Director IZOLYATOR Co. I.D. Panfilov and a group of the company employees visited the Alstom transformer works in Axe Le Bain, France on 25 February 2014.

The delegation delivered a presentation about IZOLYATOR Co. to Alstom employees. During the meeting, the parties discussed a variety of technical and commercial aspects of a proposed joint project.

We thank Alstom management for the invitation.



A VISIT TO A SIEMENS AG MANUFACTURING FACILITY

Representatives from IZOLYATOR Co. have visited a Siemens AG transformer works in Nurnberg, Germany. The delegation delivered a presentation about IZOLYATOR Co. to Siemens AG employees. During the visit, the parties exchanged the latest information relating to the power transformer and high-voltage bushing markets, and agreed to continue cooperation and organize a visit to a number of transformer works owned by Siemens AG. In the course of negotiations, Siemens AG was represented by Stefan Wagner, the German concern's manager responsible for purchasing of high-voltage bushings.

We thank Siemens AG for the invitation.



INTERNATIONAL ARENA

Exhibitions



POWER KYRGYZSTAN 2014 IN BISHKEK

IZOLYATOR Co. took part in the 5th International Exhibition Power Kyrgyzstan 2014 held in Bishkek. The preliminary results of the company's participation in this exhibition are quite optimistic. The event has allowed Kyrgyz specialists to establish a direct contact with the company and get acquainted with the full range of IZOLYATOR Co. products that are undoubtedly interesting for Kyrgyzstan's national energy sector.



Round-Table Discussions

A MEETING WITH ALAGEUM GROUP



A delegation from IZOLYATOR Co. has met with representatives of the Almaty-based Alageum Group. At the meeting, the parties discussed further practical steps aimed at de-

velopment of mutually-beneficial partnership and strategic cooperation. We thank Alageum Group for the invitation and fruitful work.



Business Visits



A VISIT BY THE MANAGING DIRECTOR OF 3S GREEN ENERGY INDIA PVT LTD.



On 4 February 2014, IZOLYATOR Co. was visited by Yogesh Patel, the managing director of 3S Green Energy India PVT Ltd.

The visitor was shown the company's production facility for high-voltage bushings. The parties discussed cooperation opportunities.

Direct Speech



Dear Colleagues!

The company's Special Design and Engineering Bureau (SDEB) is the think tank of our enterprise. This structural unit is responsible for designing all new company products and processes for their manufacture. It is in charge of research and development activities aimed at improving bushings design and implementing modern-day technology.

To put it simply, SDEB embodies the idea into a new high-voltage bushing that fully meets all specified requirements.

As of today, a number of Russian-based energy systems operate more than 500,000 high-voltage bushings of various types and voltage categories that were made by IZOLYATOR Co. Years ago, they existed only as calculations and schematic drawings. Today, some of them can boast more than 60 years in operational experience.

In today's environment, the requirements to high-voltage bushings get more and more stringent. This results in proportionately stricter requirements to their design and, hence, to people who create them. The knowledge and experience of SDEB personnel in the field of bushing design allow us to offer competitive products and remain a leader on the international high-voltage bushing market.

In a word, we know how to make high-voltage bushings and the extensive experience in their design, manufacture and operation is a convincing proof of that knowledge.

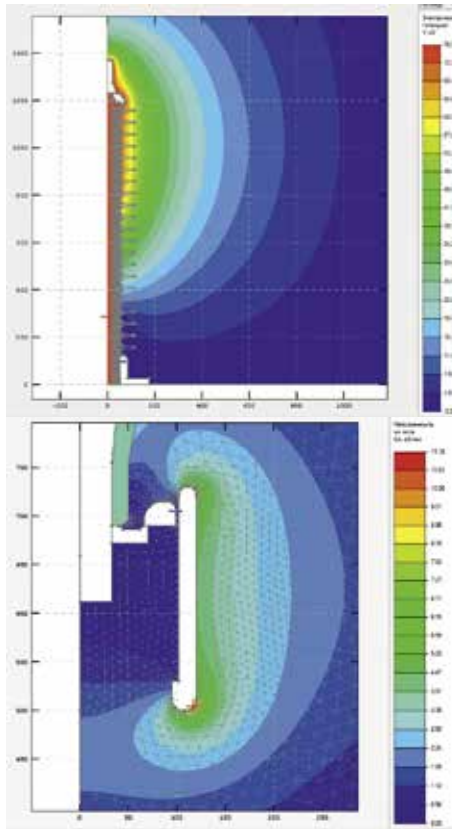
Yury Nikitin
Chief Designer
IZOLYATOR Co.

Vectors of

The process of designing a new type of a high-voltage bushing begins with a lot of calculations like this:

- Calculation of insulation core involving determination of the required configuration of the compensating layers inside the insulation core;
- Calculation of electrical field for the bottom, and where necessary, top section of the bushing.

Calculation of electrical fields for the bottom and top section of the bushing



- Calculation of thermal capability involving determination of the bushing temperature at short-circuit currents;
- Calculation of the power bushing's mechanical durability taking into account seismic loads.

Calculation of mechanical durability for a wall bushing rated for 110 kV



Once all the necessary calculations are done, the next step would be elaborating a 3D bushing model and preparing a drawing for the manufacture of the necessary parts and components.

A 3D model of a 220-kV power bushing



It should be noted that all high-voltage bushing designs are meant to be as much interchangeable as possible, thus significantly facilitating the designer's job and reducing the number of drawings to be prepared.

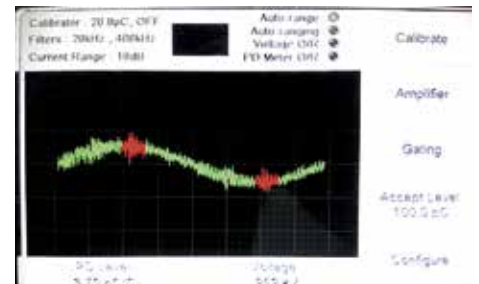
At this stage, the bushing design process involves process engineers who determine the need to design special equipment for the bushing manufacture and begin elaborating the necessary technological processes.

A working drawing of the supporting flange for a bushing



After the coordination stage, all design and process documentation is handed over to production where a prototype model, meant for acceptance testing, is manufactured.

Measuring partial discharge for a 220-kV bushing



INNOVATIONS

Modernization

If the testing is successful, the bushing is included into the serial production plan and can then be manufactured in a quantity required.

Core SDEB personnel is represented by long-timers who started their professional career years ago at the Moscow-based A. Barkov Izolyator Works.

Discussing new bushing design



These people have huge experience and necessary skills allowing to design truly unique products. In particular, under contract with the French company AREVA, we designed and manufactured the longest bushing 21 meter long – a wall DC bushing rated for +/- 820 kV that successfully passed acceptance testing at our enterprise.

Acceptance testing for wall bushing rated for +/- 820 kV



In recent years, the percentage of bushing designs made to customer specifications has been on the increase. In addition, of the 17 bushings designed by us in 2012-2013, ten were designed under contracts with foreign customers with the remaining seven made to specifications of domestic energy sector enterprises. This is starkly different from the period preceding 2011 when all bushings were designed for use on the Russian market.

If the current trend persists, in a few years we may have to switch entirely to contracts with foreign customers – a sign indicating that the situation in the domestic energy sector is far from being satisfactory.

Along with the design of new bushings, we are responsible for modernizing the designs for serial production. Of course, making any change to a given design is preceded by the necessary development activity that culminates in a series of standard tests. The required changes to the design are made only after obtaining positive test results.

In 2011, we conducted a large-scale modernization of the entire range of the bushings being manufactured, making a dozen changes aiming to improve product reliability and quality. So far, there have been no reports about failure of any of the modernized bushing which proves that the decision to modernize was absolutely correct.

Modernized 110kV bushing with polymer insulation



Some time ago, we modernized 110kV 800A bushings meant for transformers with external polymer insulation. To enhance mechanical durability of bushings and ensure extra protection of internal insulation from moisture, we increased the diameter of the lead's middle section making the bushing more durable and increasing its reliability and service life.



We have a significant reserve for use with future designs as well as plans for their implementation. Today, the role of engineering staff and, in particular, the designer becomes more important than ever. Our knowledge and expertise in high-voltage bushing design are unique and allow us to view the future with confidence.

We can implement our plans and successfully achieve the goals set. We can design bushings of any complexity rated for any voltage category.

We are a single team working to achieve a common goal and making our adequate contribution towards further development of our company and the domestic energy sector in general.

Direct Speech



Company Success Is Ensured By Its People

Our employees, their professional and creative potential are the main asset of IZOLYATOR Co., the source of the company's success and development and the guarantee that the most-complicated and unique technical challenges will be resolved.

Working with people remains the focus of continuous attention of the company management and is regulated by a number of corporate documents, with the main ones being the Personnel Policy and the Provision for IZOLYATOR Co. personnel training, retraining and skills upgrade.

In March 2014, our company organized an employee training course titled «Efficient Communication and Negotiation Skills» delivered by the leading business trainers from the Sought-After People Academy of Sales. We also assessed the professional level and smooth teamwork of our employees using the DISK INSUNRISE assessment tools package – one of the most-advanced and efficient methodologies for working with employees currently used by management practitioners.

The event proved very useful for systematizing the available skills and allowing to elaborate team and individual-level plans for professional development of employees involved in the sales process and aiming to ensure open, mutually-beneficial and fruitful cooperation with our customers, which undoubtedly remains a top priority of our daily efforts.

Anna Skvortsova,
Personnel Manager
IZOLYATOR Co.

Corporate Spirit



Production Calendar



June 6

IZOLYATOR Co. celebrates
its 118th anniversary



December 22

Professional holiday
of the energy sector employees

APRIL

Mon	Tue	Wed	Thu	Fri	Sat	Sun
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

MAY

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12	13	14	15	16	17	18
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26	27	28	29	30	31	

JUNE

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23 ³⁰	24	25	26	27	28	29

JULY

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14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

AUGUST

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SEPTEMBER

Mon	Tue	Wed	Thu	Fri	Sat	Sun
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