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# IZOLYATOR

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

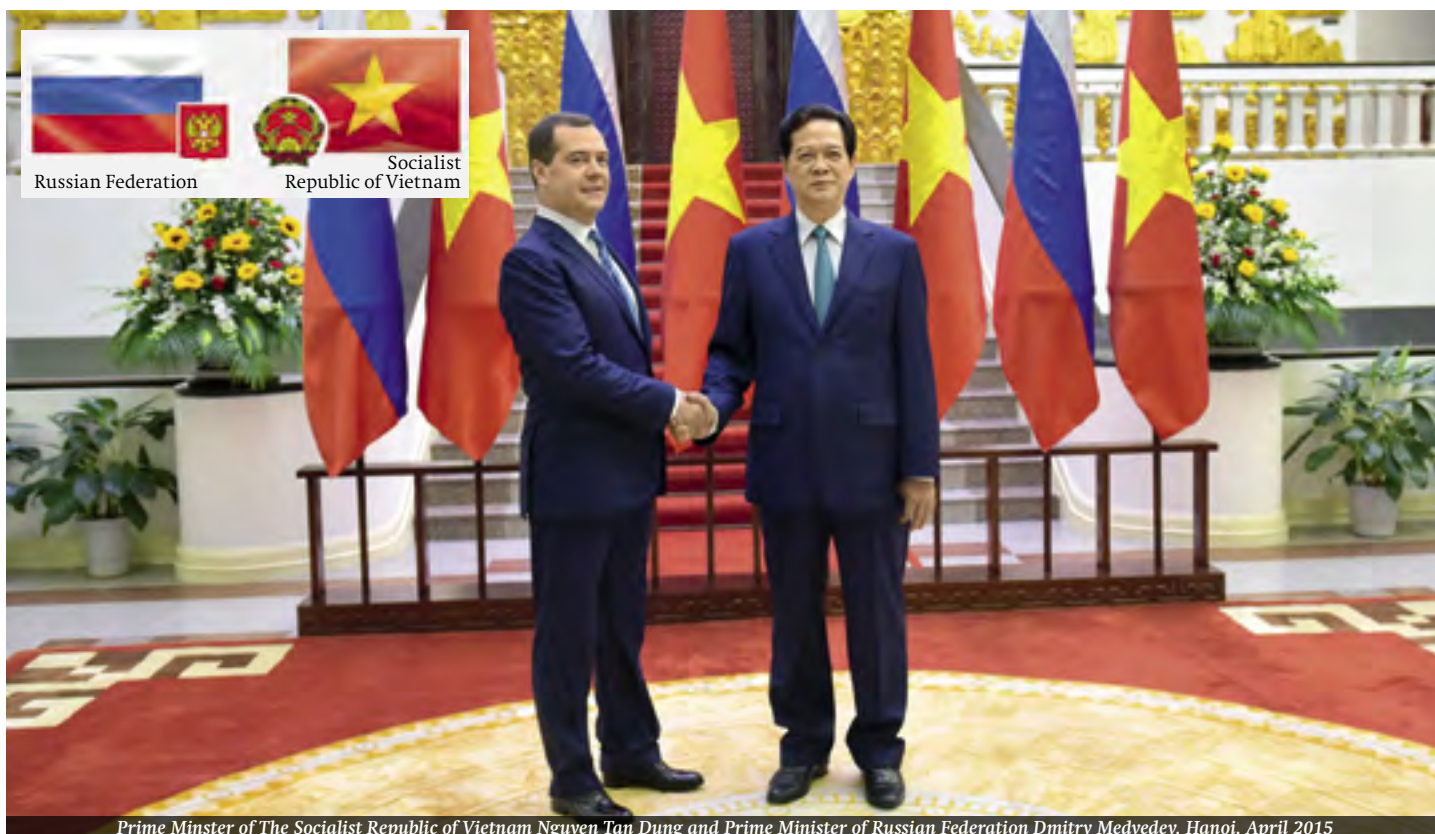
Corporate Edition Izolyator

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## RUSSIA – VIETNAM: DEVELOPING A STRATEGIC PARTNERSHIP

Special Edition No. 1

April 2015



Prime Minister of The Socialist Republic of Vietnam Nguyen Tan Dung and Prime Minister of Russian Federation Dmitry Medvedev, Hanoi, April 2015

On 6-7 April 2015, Dmitry Medvedev, Prime Minister of Russian Federation, visited The Socialist Republic of Vietnam and held a series of official

meetings and talks in Vietnam. The keynote of the meetings concerned multisectoral cooperation in power, energy, industry, investment and

humanitarian fields. Upon completion of Russian-Vietnamese talks a number of documents were signed including a Memorandum on Co-

operation in Power Industry modernization on the territory of The Socialist Republic of Vietnam.

(Details on p.2)

### ALSO IN THIS ISSUE:



VISIT TO THE TRANSFORMER PLANT OF DONG ANH ELECTRICAL EQUIPMENT CORPORATION JSC (EEMC)



MEETING WITH VIETNAM ELECTRICITY EVN



## STRATEGIC PARTNERSHIP WITH VIETNAM CONTINUED

Based on directives of the Chairman of the Government of Russian Federation Dmitry Medvedev regarding intensification of Russian business promotion to international markets and identification of prospective markets for highly technological products of Russia and results of his visit to The Socialist Republic of Vietnam, Izolyator (Massa Ltd), a Russia based manufacturer of high voltage power equipment, carries on with activities overseas developing cooperation with Vietnam Electricity EVN (EVN is the largest power grid company structurally related to the Ministry of Industry and Trade of Vietnam) and manufacturers of power equipment of Vietnam.



*Alexander Slavinsky,  
Chairman of the Board  
of Directors, Izolyator  
Vice President of Academy of Electrical  
Engineering Science RF  
Doctor Eng.Sc.*

## RUSSIA-VIETNAM TALKS. PRIME MINISTER DMITRI MEDVEDEV'S VISIT TO VIETNAM



*Prime Minister of The Socialist Republic of Vietnam Nguyen Tan Dung and Prime Minister of Russian Federation Dmitry Medvedev, Hanoi, April 2015*

**On 6-7 April 2015, Prime Minister Dmitri Medvedev visited The Socialist Republic of Vietnam and held a series of official meetings and talks with:**

- The President of Vietnam Truong Tan Sang
- The Prime Minister of Vietnam Nguyen Tan Dung
- General Secretary of the Communist Party Central Committee Nguyen Phu Trong

- Chairman of the National Assembly of Vietnam Nguyen Singh Hung
  - People's Committee Chairman of Ho Chi Minh Le Hoang Quan
  - Representatives of Russian and Vietnamese business community.
- Dmitry Medvedev held meaningful discussions with the top government officials of The

Socialist Republic of Vietnam. The keynote of the meetings concerned multisectoral cooperation in power, energy, industry, investment and humanitarian fields. Upon completion of Russia - Vietnam talks a number of documents were signed including a Memorandum on Cooperation in Power Industry modernization on the territory of The Socialist Republic of Vietnam.

## EEU AND VIETNAM AGREED ON FREE TRADE

Eurasian Economic Union (EEU) and Vietnam signed Agreement on Free Trade. EEU will sign such agreements with other countries, said Prime Minister of Russia Dmitry Medvedev. Signing took place in Kazakhstan on

29 May 2015 in the framework of EEU Intergovernmental Council sitting. The Heads of the Governments represented by Prime Minister Dmitri Medvedev and Prime Minister Nguyen Tan Dung also signed two protocols

to the agreement. Besides, the countries also agreed on most favored nation regime for Russian suppliers and investors. Agreement with Vietnam became another milestone in EEU development.

## VIETNAM TODAY. ECONOMIC SITUATION

### The Socialist republic of Vietnam

(quick info)

- A country in South East Asia with a population of 89.7 mln people. Territory – 330 thnd sq km. Capital – Hanoi, with 7.4 mln inhabitants. GDP: 90 880 mln USD. National currency – Vietnam Dong. Official language – Vietnamese. Head of the State – President Truong Tan Sang.

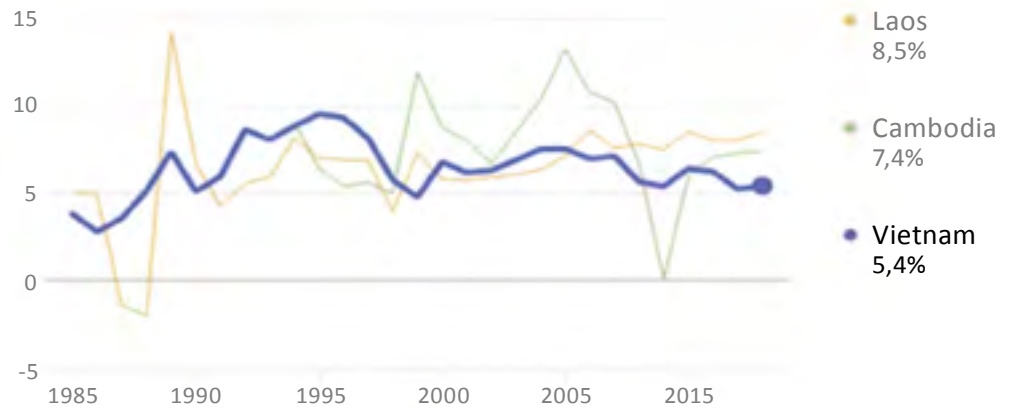
The Supreme legislative unicameral organ is The National Assembly. The Chairman of the National Assembly is Nguyen Sinh Hung. The Supreme Government organ is the Government headed by The Prime Minister Nguyen Tan Dung.

### Statistics

Per capita GDP	1 910.51 USD
GDP	171.4 bln USD
Population growth	1.0% annually

## 5.4% annually

Vietnam, GDP growth



One of the countries that Russia is interested to develop cooperation with in the near years is Vietnam, an old friend and partner in trade. Russia and Vi-

etnam have established close ties in military coordination, oil and gas extraction, power industry and nuclear power. Vietnam economy today gives priority to

power industry, hi tech, mining, metallurgy, chemical and processing industries and defense industry. The country's economy continues to show a steady

growth – within 9 months of 2014 GDP growth reached 5.62% with inflation level below 5%. Positive trends are also visible in exports.

## POWER INDUSTRY TRENDS IN VIETNAM

The main document that regulates power industry development is Government Order #1208/QĐ-TTg of 21 July 2011 "on power industry development in The Socialist Republic of Vietnam till 2020 with an outlook to 2030" (so called Plan #7). In accordance with the Plan #7 a considerable extension of unified grid is to take place involving new 500kV, 220kV, 110kV OHPL construction to connect Vietnam with neighboring Laos, Cambodia and China. Additional capacities (approx. 2000 MW) are planned for commissioning.

### VIETNAM



Population 90.5 mln

Large share of agriculture in economy.

Export oriented economy.

High GDP growth rates.




Flexible state regulation.

## RUSSIA-VIETNAM: DEVELOPING A STRATEGIC PARTNERSHIP

## VIETNAM COOPERATION

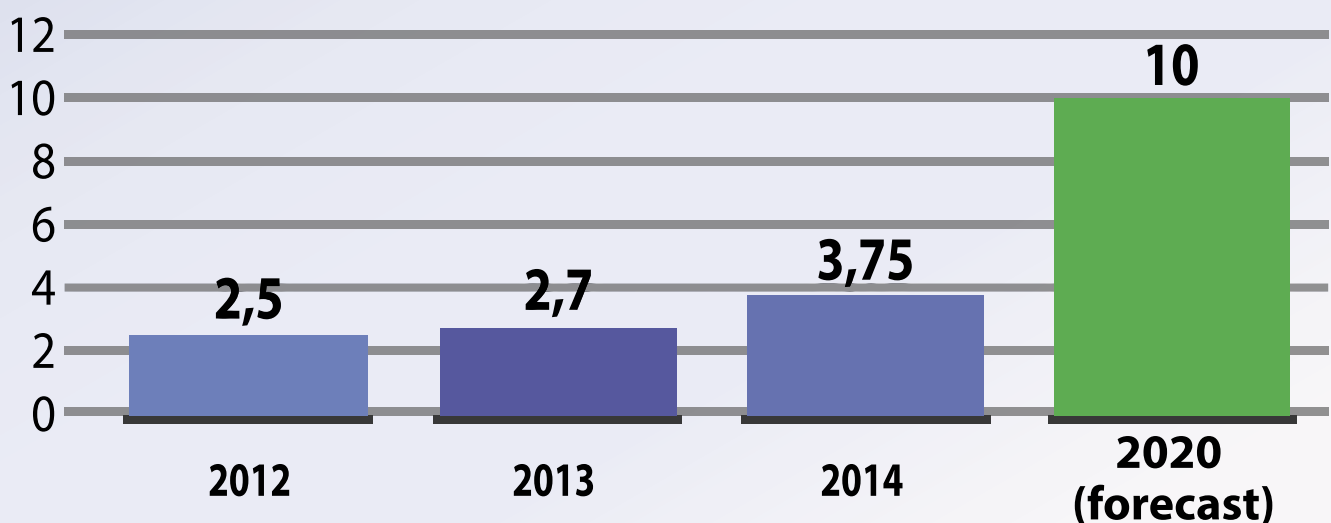
Russia-Vietnam cooperation in thermal and hydropower counts more than a 40 year history. Power equipment building enterprises in USSR including Izolyator plant took part in most power facilities construction in Vietnam territory with the most prominent Hydraulic power station Hoa Binh and Thermal station Falai. At present there are over 100 project with Russian investment realized in Vietnam. The south of

the country hosts the biggest joint ventures like Vietsovpetro, Vietgazprom, Rosneft Vietnam. Ninh Thuan-1 nuclear power station and Long Phu thermal power station are planned for construction. The Vietnamese side pays great attention to creating a free trade zone between Vietnam and the Customs Union – Russia, Belarus and Kazakhstan as well as cooperation with Russian Federation in general.

Form of government	
Presidential Parliamentary Republic	Parliamentary Republic with one-party system
Area	
17 045 400 sq km	331 212 sq km
Population	
141.9 mln	85.8 mln
Density	
8.3 per sq km	259 per sq km
GDP*	
2 145.8 bln USD	250.5 bln USD
Per capita GDP	
15 176 USD	2 861.8 USD
 Establishing diplomatic relations 30 January 1950	 Goods turnover with Russia** 1561.8 mln USD
 Time difference +4 (+3 during Russia summer time switch)	 Flight time (Moscow-Hanoi) 9-10 hrs
<small>*IMF data, 2009</small> <small>**Federal Customs Service data, 2009</small>	

## Goods turnover between Russia and Vietnam

(bln USD)



Source: Economic Development Ministry

## RUSSIA-VIETNAM: DEVELOPING A STRATEGIC PARTNERSHIP


**IZOLYATOR**

1896   
Established in

from 200   
from 500  
employees

plant area   
24 000 sq m

USD   
62 mln  
Annual sales

70-80%   
market share  
in Russia and CIS

20%   
Export share  
in sales volume

## Izolyator Advantages

-  118 years of experience behind our back, we are the most experienced manufacturer of high-voltage bushings in the world (> 500 000 pcs produced)
-  Strive for constant product improvement
-  We stand by modern approaches to partnership and cooperation
-  Full range of HV bushings 12 - 1150 kV available
-  Supply reference all around the world
-  We are a professional team
-  More than 15 year experience of RIP bushings manufacture
-  Company and products recognized worldwide
-  We render a complete services range:
  - Design
  - Production
  - Testing
  - Warranty and post warranty service
-  Design and develop innovative products
-  Clients' interests are the main goal in our work
-  We are always open to cooperation

On 20-24 April 2015, Izolyator delegation visited Vietnam. Several meetings took place with management of the state power grid com-

pany of Vietnam EVN and its subsidiaries in transmission and distribution, Dong Anh Electrical Equipment Corporation JSC (EEMC) transform-

er plant. The delegates also visited some power generation facilities of Vietnam. All meetings were organized and facilitated with participation of


Izolyator's representatives in Vietnam:

- Mac Thi Vinh Phu
- Le Anh Hien.

## RUSSIA-VIETNAM: DEVELOPING A STRATEGIC PARTNERSHIP



Izolyator representatives visited transformer plant Dong Anh Electrical Equipment Corporation (EEMC) in the city of Hanoi on 20 April 2015. Izolyator delegates: Ivan Panfilov, Commercial Director, 1st Deputy General Director, Natalya Mazova, Area Sales Manager. Dong Anh Electrical Equipment Corporation (EEMC) was represented by Mr Le Van Diem – Deputy General Director, Mr Nguyen Quang Tue - Deputy Director on Technical Dpt, Mr Nguyen Viet Anh – Head of Purchasing.



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

## VISIT TO TRANSFORMER PLANT DONG ANH ELECTRICAL EQUIPMENT CORPORATION JSC (EEMC)

During the talks the sides covered such issues as:

- RIP bushings demand
- First project status
- Long term strategic cooperation between Izolyator and Dong Anh Electrical Equipment Corporation (EEMC) and grid company of Vietnam EVN as well as end users
- Development and enhancement of joint cooperation and further steps towards a closer partnership
- Experience sharing.

Izolyator representatives provided information on:

- The progress and schedule of the trial party of bushings aimed for tests on Dong Anh Electrical Equipment Corporation (EEMC) transformer
- Options to enhance relationship long term.

In the result of the meeting Dong Anh Electrical Equipment Corporation JSC confirmed:

- Interest and 100% determination to develop long term cooperation with Izolyator: a directive from the Board of Directors addressed to the entire staff to support cooperation with Izolyator as a Russian manufacturer of high-voltage bushings
- Intention to use and switch for bushings with hard insulation made on RIP technology.

Dong Anh Electrical Equipment Corporation JSC organized visits to production facilities and showed Izolyator representatives the process of transformers production.

Dong Anh Electrical Equipment Corporation JSC is actively developing and increases production capacity by building a new 500kV transformer assembly shop for example.

### Dong Anh Electrical Equipment Corporation

(quick info)

Dong Anh Electrical Equipment Corporation (EEMC) was founded in 1971 on the basis of power equipment maintenance and overhaul facility Dong Anh and power equipment manufacturing company Dong Anh. The company has good traditions and a substantial experience in design, manufacture, delivery and maintenance of power equipment for the national power grid including such projects as NhoQuan 500kV substation, thermoelectric substation VungAng 500kV, other substations as Ialy, Da Nhim, Uong Bi, Pha Lai, Thac Ba, HoaBinh, substations and power lines from 6kV to 500kV, steel and cement making plants. The company has been a big success in production and sales development making a valuable contribution to development of the country and its industrialization. Today Dong Anh Electrical Equipment Corporation is one of the leading power equipment OEMs in Vietnam and South Eastern Asia and the only Vietnamese 220kV-500kV transformer maker, the fact that takes Vietnam to the list of only 10 countries in the world that successfully develop and make 500kV transformers.



Participants of the meeting at Dong Anh Electrical Equipment Corporation plant



Talks at the plant of Dong Anh Electrical Equipment Corporation



Introduction to transformer production at Dong Anh Electrical Equipment Corporation plant

## RUSSIA-VIETNAM: DEVELOPING A STRATEGIC PARTNERSHIP

## VIETNAM ELECTRICITY EVN MEETING

## Viet Nam Electricity EVN

(quick info)



The state owned Viet Nam Electricity EVN takes full responsibility for transmission and distribution of electric power on the territory of The Socialist Republic of Vietnam. To ensure power supply EVN controls: - 3 generation companies (GENCO 1, 2, 3), - 5 utility companies: Electricity Corporation North (EVN NPC), Corporation Central Electricity (EVN CPC), Corporation Southern Electricity (EVN SPC), Electricity Hanoi (EVN HANOI), Electric City Corporation Ho Chi Minh City (EVN HCMC)

National Electricity Transmission (EVN NPT) company is now responsible for power transmission within Vietnam Electricity Corporation: it was founded in the result of reorganization of four transmission companies (Transmission Company 1, 2, 3, 4) and three project management committees (Project Management Committees in power industry – Northern, Central and Southern).

The main activities of Vietnam Electricity are: generation, transmission and distribution of electric power, management system operation in the national grid, import and export of electric power, investment and power projects investment management, management, operation, maintenance, modernization and overhaul of power equipment, automation and mechanization of production lines, transmission and distribution of electricity, installation works, experimental development and tests. The meeting of the Russian delegation with representatives of EVN took place at the headquarter on 23 April 2015. From EVN side Izolyator was received by: Nguyen Quang Viet – Deputy Director on R&D, Tran Hong Tien – Generation Department

Purpose and agenda of the meeting: • Sharing experience between Russia and Vietnam in all sectors of economy and industry • Russian-made equipment application in the power sector of Vietnam • Experience sharing on installation, operation and maintenance of high-voltage equipment on power generation, transmission and distribution facilities • RIP technology advantages • Izolyator HV products application • Inviting leading Russian OEMs to the market of Vietnam.

In the result of talks, EVN company confirmed its readiness to cooperate with Izolyator: • Start a meaningful dialogue with FSK UES JSC • Develop projects that support local production of

equipment for transmission and distribution of electric power, ensuring import phase-out program implementation • Experience sharing in the areas of transmission and distribution of electric power in general • Sharing in the area of innovative technologies implementation and operation, especially in transmission and distribution • Exchange of experience in construction and operation of power facilities of high and medium voltage between Russia and Vietnam • High-voltage transformers, completing parts and other equipment operation at varied temperature and climatic conditions • Operation, warranty and post warranty services and power equipment operation control on different facilities of transmission and distribution • Any other areas of interest for FSK UES JSC regarding transmission, distribution of power and experience sharing in research and development topics. Considering the fact that no official contacts were established between Viet Nam Electricity EVN and FSK UES JSC and Dmitry Medvedev's comments on Russian manufacturer's international expansion support Izolyator suggested to use the already existing experience of cooperation between Viet Nam Electricity EVN and Massa Ltd – Izolyator plant and the successful experience of long term cooperation between Massa Ltd – Izolyator and FSK UES JSC and organize initial contact via a trilateral meeting between Viet Nam Electricity EVN, FSK UES and Massa Ltd.



Talks in Viet Nam Electricity



Meeting attendees at Viet Nam Electricity



Management representatives of Viet Nam Electricity

## RUSSIA-VIETNAM: DEVELOPING A STRATEGIC PARTNERSHIP



On 22 April 2015, Izolyator and EVN NPT meeting took place. The goals of the company are

- To ensure safe, uninterrupted and sustainable transmission of electric power for economic, political, social, national defense activities and national security.
- To receive profit for sound operation and production according to the norms set by the regulating bodies
- To develop EVN capital, invested in EVN NPT,
- To rationally use available resources with the purpose of profits maximization and acquiring funds for reinvestment in EVNNPT.



**Natalia Mazova,**  
Area Sales Manager at Izolyator

### National Power Transmission Corporation (EVN NPT)

(quick info)



National Power Transmission Corporation (EVN NPT) was founded on 1 July 2008 (Order # 223/QĐ-EVN dated 11 April 2008 of EVN Board) with the reorganization of four companies activity: Power Transmission Company No. 1, 2, 3, 4 and three Project management offices: Northern, Central and Southern offices.

The main activities are

- To effectively realize electric power transmission
- To invest in grid development
- To operate, maintain and service the network
- Render consulting services in regard to construction and investment, monitoring of project realization
- Training and developing employees for management, operation and maintenance of the power system.

The purpose of the meeting: suggestion to set up international cooperation between EVN and Russian Federal grid company for sharing experience in the power sector planning joint projects. Over the meeting EVN NPT confirmed:

- Intention of EVN management to expand cooperation with all

## MEETING EVN NPT NATIONAL POWER TRANSMISSION COMPANY



Meeting attendees in National Power Transmission Corporation



Talks in National Power Transmission Corporation

transformer plants and grid companies globally

- Intention to cooperate with Izolyator company
- Izolyator decision to approach Dong Anh and set up cooperation as correct
- Interest to set up exchange of experience and knowledge in power industry with FSK UES of Russia.

The main outcomes of the meeting: Izolyator expressed a strong interest in cooperation with EVN NPT. As a key partner to FSK UES Russia Izolyator offered assistance to Vietnamese colleagues in organization of contacts and future meetings in Vietnam and search of reliable Russian manufacturers of high-voltage equipment.

## MEETING WITH EVN NPC NORTHERN POWER CORPORATION

### EVN NPC

(quick info)

EVN NPC is a power transmission company with coverage of 27 provinces and cities in the northern Vietnam. It is one of the five biggest companies in EVN structure with focus on 110kV and 220kV ETLs for key economic zones this year.



Meeting attendees in EVN NPC



The talks in EVN NPC were successful

On 22 April 2015, EVN NPC received Izolyator representatives. EVN NPC was represented by a delegation headed by Director on international relations Mrs Ha Thi Minh Hu. The visitors presented Izolya-

tor company and products and discussed cooperation prospects. A transition from OIP to an innovative RIP technology on power facilities in Vietnam was highlighted during the presentation.



## RUSSIA-VIETNAM: DEVELOPING A STRATEGIC PARTNERSHIP

## SEMINAR AT EVN HANOI

**Power Corporation of Hanoi**

(quick info)



Power Corporation of Hanoi was set up by Order #738 / QD-BCT of 05 February 2010 of the Ministry of Industry and Trade under the auspices of Vietnam Electricity

**EVN HANOI activities**

1. Power generation, transmission and distribution, wholesale and retail sales of electric power

2. Experimental power controls set up

3. Power equipment repair

4. Monitoring and control equipment installation works, construction and finishing works on industrial facilities, power lines and substations

5. Production of power engineering equipment

6. Electric system mounting

7. Construction of power facilities

8. 110kV ETL and substations design

9. ETL and substations of any voltage class development

10. Investment and construction consulting

11. Architectural design

12. Projects planning and construction investment management

13. Consulting services on projects drafting, realization, administration and management.



Participants in Izolyator seminar held in Power Corporation of Hanoi

On 21 April 2015, a technical seminar took place with participation of Russian Federation trade representative in Vietnam for the needs of EVN Hanoi. Izolyator made detailed and informative presentations that proceeded with exchange of opinion and prioritizing future cooperation. The topics covered:

- Izolyator presentation
- RIP technology advantages over oil-in-paper technology
- Russian-made power equipment application in the power sector of Vietnam.

From EVN Hanoi side the colleagues presented:

- Company structure
- Main company activities
- Power distribution experience
- Opportunities for the equipment application.



Izolyator seminar in Power Corporation of Hanoi

## BUSINESS MEETING WITH THE TRADE REPRESENTATIVE OF RUSSIA IN VIETNAM



Izolyator and Trade Mission of RF in Vietnam representatives meeting

**The trade representation of Russian Federation in Vietnam**

(quick info)

The trade representation of Russian Federation in Vietnam is a state body that represents foreign trade interests of Russian Federation and is a part of the diplomatic mission of Russia in Vietnam.

The Trade Mission's activity distributes into several directions:

- interstate interactions
- facilitation of trade and investment projects of Russian companies in Vietnam
- organization and facilitation of business visits, presentations, advertising campaigns, topic-based events of Russian organization, companies and federal subjects of Russian Federation

- information and organization support of Federal executive bodies and economic entities.

In the result of the meeting a sound understanding was formed in regard to the system of doing business in Vietnam and establishing commercial relations by Russian manufacturers with their counterparts as well as understanding of current economic situations in power industry of Vietnam.

## VISITING GENERATION FACILITIES

With the kind assistance of Dong Anh Electrical Equipment Corporation (EEMC) Izolyator representatives were invited to visit Hoa Binh hydraulic power station and Falai thermal power station.



## HOA BINH

### Hoa Binh hydrostation (quick info)

The Hoa Binh dam on the river Da is the largest dam in Vietnam and entire South Eastern Asia comparable with Son La. The electric power is produced by eight hydro turbines with 240 MW capacity. The total installed capacity is 1920 MW. After construction of the dam the Da reservoir was formed. The dam is located on the river in Hoa Binh province in Vietnam. The height of the dam is 128 m (420 feet), the length is 970 m (3182 feet). Vietnam Electricity owns the station producing up to 8160 GWh annually. The construction of rock fill dam started in November 1979 and ended in 1994.



Meeting attendees at Hoa Binh hydropower station



On the territory of Hoa Binh power station

## RUSSIA-VIETNAM: DEVELOPING A STRATEGIC PARTNERSHIP

The construction was financed and managed with the invitation of Russian investment and specialists; today the hydro station generates 27% of total electricity production in Vietnam. The power station staff is 800 people. 11141 households with approximately 89720 people were resettled from the area and 13 000 hectares were impounded.

Izolyator representatives visited Hoa Binh station, the 550 kV and 220 kV substations specifically, the turbine room, and met the 550 kV station head. Since the station construction was completed in soviet period with Russian specialists participation practically entire equipment range including transformers and bushings are soviet-made. The OIP bushings made by Izolyator in the soviet period are operating well today. The representatives of Izolyator company suggested a routine replacement of substation bushings for continued uninterrupted operation of the power station as the OIP bushings' service life is well over 30 years in operation even though they are sound and operating.

*Hoa Binh station turbine room**Hoa Binh station switch room*

## FALAI THERMAL STATION

### Falai station

(quick info)

The largest coal-burning station in Vietnam was built by Electricity Vietnam (EVN). The power station's capacity is 600 MW. It is located 65 km to the north of Hanoi. The cost of the power station is approximately 540 mln USD. The station came to replace an old EVN operated station with eight 220 t/hr boilers and four 110 MW turbines. The previous station was built by Russian specialists and delivered only three fourths of its capacity at the dry season.

The power production in the country within 2000 and 2020 is expected to grow from 27 bln Kwh to 200 bln kWh to 200 bln kWh, so EVN works on creation of national grid by 2020. The system will include Hydro power stations, three dams – the first one of which was put into service in 2003 – and a Nuclear power station by 2020.

After almost 30 years of construction and development Falai input has a huge importance for development of power industry and the country's industrialization and modernization in general. Izolyator representatives met the Deputy Director of the station and the Head of Technical Department. At the meeting, the station representatives spoke on the needs to:

- replace over 30 years old HV bushings with OIP insulation made during soviet period in USSR by Izolyator by the new RIP insulated Izolyator bushings
- run operating equipment performance audit
- continue successful cooperation with the representatives of the Russian company
- conduct additional staff training of the substation.

In the result of the meeting, Izolyator confirmed readiness to

- conduct additional diagnostics of the equipment used in Falai station
- arrange routine replacement of high-voltage bushings
- ensure additional emergency reserve availability on the substation
- arrange substation staff training on Izolyator's RIP-insulated bushings application and operation.

After a productive conversation the hosts made a tour for Izolyator delegates to examine equipment in operation. The visitors were able to see Izolyator made bushings with operation life over 30 years. The OIP bushings on 220 kV transformers continue to work fault free, however due to the long-term service they require to be replaced in the near future.



Meeting attendees at Falai thermal station



Falai power station management representatives



Introduction to Falai station facilities



In the background – Izolyator made bushings with more than 30 years operation life at Falai station

## RUSSIA-VIETNAM: DEVELOPING A STRATEGIC PARTNERSHIP

## INTRODUCTION TO THE CULTURE OF VIETNAM

Besides a rapidly developing economy of the country Vietnam has a rich culture and century-old traditions. Izolyator representatives received an opportunity to familiarize themselves with Vietnam's art and cuisine. For the purposes of art and craft they use wood, bone, gold, silver, bronze, mother of pearl, marble and fabrics. Out of bronze, gold and silver they make finery, cult pertinents and luxury items. Vietnamese craftsmen impress with the finest artistry.



*Exotic Vietnamese cuisine*



*Lacquerware manufactory excursion – a traditional craft in Vietnam*

## IZOLYATOR WOULD LIKE TO THANK ALL PARTICIPANTS OF THE MEETINGS

In the result of events, all sides confirmed their interest to continue cooperation and expressed readiness to expand experience

exchange between Russia and Vietnam regarding usage of innovative technologies for systems of transmission and distribution of

electric power. Izolyator would like to express sincere gratitude to all meetings participants and a special thanks to the official Izolyator

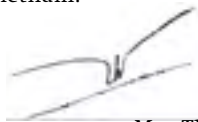
representatives Mac Thi Vinh Phu and Le Ahn Hien for organization of meetings at the high level, productive work and warm welcome.

# RUSSIA AND VIETNAM: 2014 RETROSPECTIVE



## BEGINNING OF COOPERATION

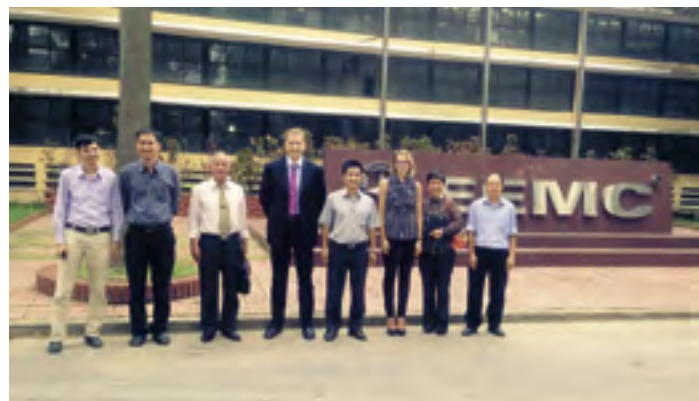
Izolyator has a vast and successful experience of relations building in power industry of many countries in the world. One of the successful recent examples is cooperation with leading companies on the Indian market namely PowerGRID company and major HV transformer manufacturers in the country. Based on the positive Indian experience, Izolyator management made a decision to develop economic ties with Vietnam. The high product quality, modern technical level and competitive ability of the products in the global power engineering market as well as innovative strategy provide a solid foundation for an effective development of economic ties between Izolyator company and Vietnam.



*Mac Thi Vinh Phu,*  
Representative of Izolyator in Vietnam



*Meeting at the Ministry of Industry and Trade of Vietnam*



*Meeting attendees at the Dong Anh Electrical Equipment Corporation (EEMC) plant*

In October Izolyator took part in the largest multi-industry annual exhibition in South East Asia VIIF 2014. This venue is popular with international audience and is organized by the Government of Vietnam in VEFAC exhibition center. Izolyator representatives met with Alexander Kardo-Sisov, Consultant of Russian Trade Mission in Vietnam and moderator who facilitated dialogues on:

- state-to-state liaison between Russia and Vietnam
- trade and investment projects promotion
- framing and setting-up Russian business missions or representations

In the frame of international exhibition, Izolyator representative 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 exchanged views on current status of trade and economic relations and cooperation prospects for power industries of the two countries. Deputy Minister of Industry and Trade highlighted the importance to increase cooperation between the countries that would allow for mastering innovative technologies and introduce Russian manufacturers to the market of Vietnam.

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.

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 the transformer plant of Dong Anh Electrical Equipment Corporation JSC. This facility is one of leading electrical engineering manufacturers of 500kV type equipment in Vietnam and South-eastern Asia. The plant takes pride in years of experience in design, production, marketing and maintenance of equipment for the national grid and largest State projects in particular.

As result of meeting at Dong Anh Electrical Equipment Corporation JSC, the 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.

Izolyator believes that continued dialogue with Vietnam with The Ministry of Industry and Trade, Electric Power Corporation EVN, Dong Anh Electrical Equipment Corporation JSC is a prominent achievement.

# RIP INSULATED BUSHINGS ADVANTAGES

## Internal hard RIP insulation

*(quick info)*

Resin impregnated paper — paper saturated with resin — is the main construction element of a HV bushing. It is a core which is formed by insulating crepe paper winding on the central tube with subsequent thermal vacuum dryout and a special epoxide compound saturation.

After drying out under pressure, any occluded gas is ousted from insulation. In the winding process, condenser plates are used to level electric field.

■ **Reliability**

■ **Security**

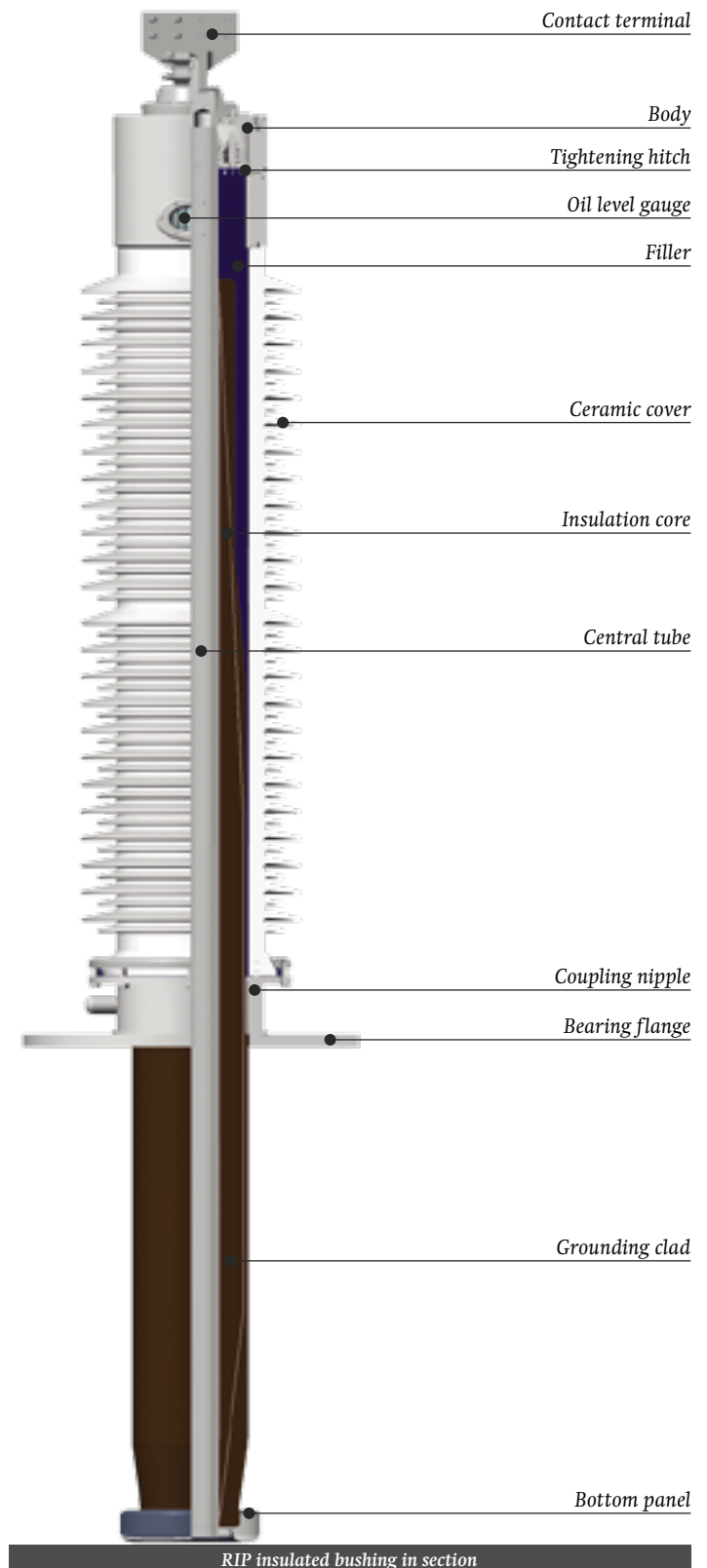
■ **Advanced design**

■ **Durability**

■ **Ecologically friendly**

■ **Service free**

■ **Ease of operation**



# IZOLYATOR: FACTS AND ACHIEVEMENTS

**118** years of bushings production experience

Sole bushings manufacturer in

**12-1200** kV

range in Russia and CIS

**550 000**

bushings made – an equivalent of **90 000** transformers with **80 MVA** capacity

**500 000**  
OIP

**50 000**  
RIP

**40 000** bushings installed in FSK UES facilities

**20 000** bushings with fault free operation exceeding **35** years

Exports to more than

**30**

countries worldwide