



Complex Solutions
in Electric Power Supply
and Automation

>About the Company

“NIPOM” OJSC is a multi-business electrical engineering company offering complex solutions for electric power supply and automation

The Enterprise has all resources required to participate in a complete cycle of a Project implementation—from a facility investigation and design to putting it into operation and support service. In this case, there is no need to engage and coordinate various contractors that results in the Customer’s significant time cutting and cost saving.

“NIPOM” OJSC is being actively involved in construction and modernization of power facilities owned by the Russian industrial standard-bearers: Gazprom, Rosneft, Transneft, Rosatom, Rossetti, etc.

Due to its competence in various branches of industry “NIPOM” OJSC is capable to transfer developed and well proven technical solutions from one industrial sector to another. Many years’ experience allows the Enterprise masterfully meet worldwide challenges and offer balanced cost effective technically perspective solutions.

NIPOM integrates two industrial complexes: for manufacturing electrical facilities and for producing modular equipment. Products undergo on the said sites the whole manufacturing process till their complete availability

“NIPOM” OJSC produces electrical equipment for energy distribution and electric installations control, direct current systems and energy-saving equipment.

The Company is ready to offer a variety of equipment options arrangements with the use of electric components manufactured by leading foreign and domestic companies, such as Siemens, Schneider Electric, ABB, Eaton, etc.; in this way meeting individual customer requirements.

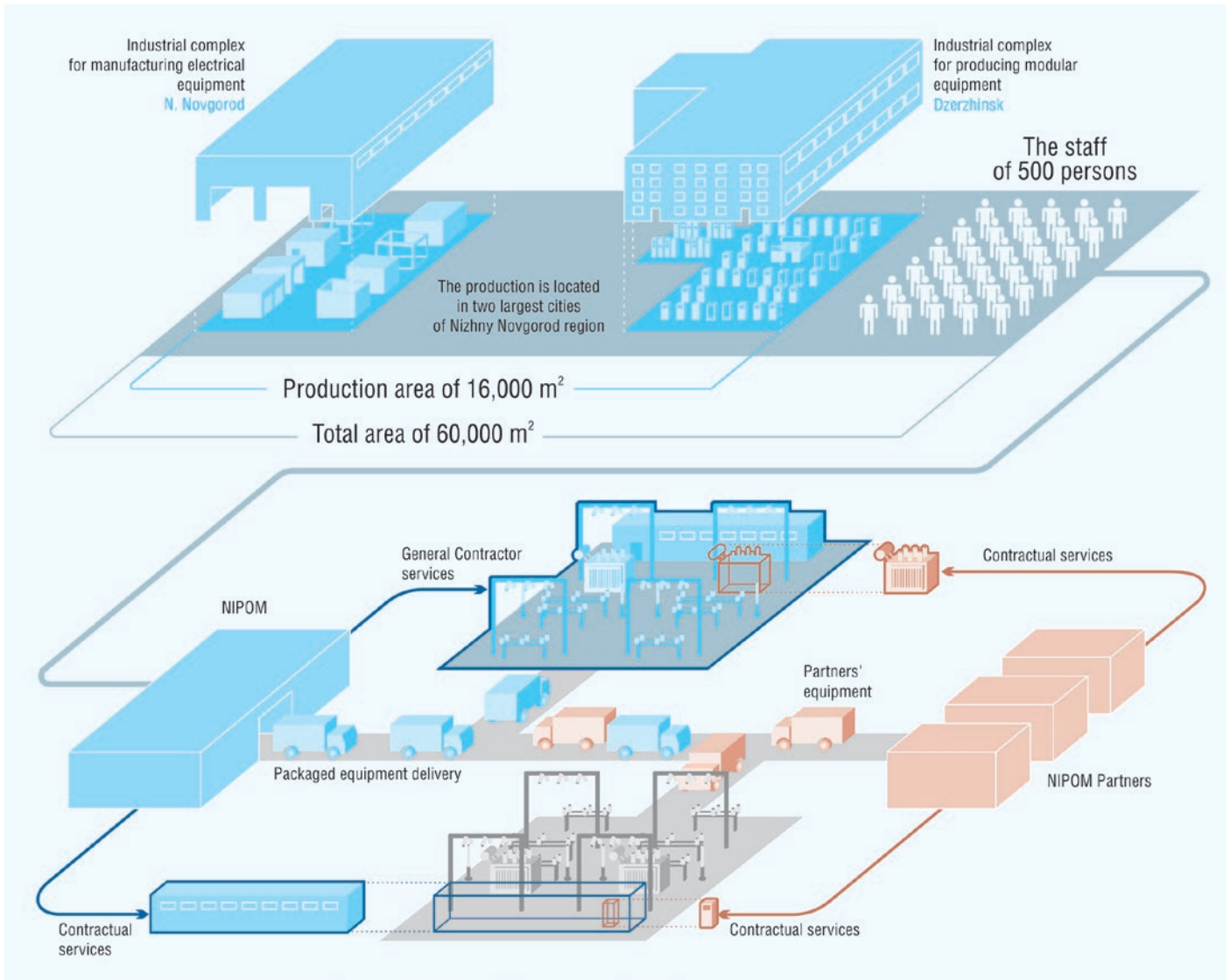
“NIPOM” OJSC products range is being dynamically developed thanks to the Company’s effective operation in two ways: in-house production and licensed production of high technology world class products. The Company is Siemens’s licensee to produce low and medium voltage equipment. “NIPOM” OJSC is being annually certified against state-of-the art quality standards applicable in the world electrical engineering and is permanently operating in compliance with reliability, safety and energy saving requirements.

“NIPOM” OJSC full range of services and products provides a possibility to choose the most effective solutions to decrease electric equipment operating costs, prevent accidents and enhance power supply reliability.

“NIPOM” OJSC is developing on the basis of implementation of innovative production methods combined with state of the art management engineering. The Company production system is based on integrated tools: Quality Management System (QMS), Environmental Management System, innovation-driven growth, continuous improvement systems (KAIZEN-management) and Project Management. This provides quality high level of products manufactured, significantly cuts time and reduces costs of production as well as provides Customers with equipment reliability and timely putting any facility into operation.

Reliable quality equipment and “NIPOM” OJSC specialists operational excellence make its Customers feel confident about the future and their business effective development Wand prosperity.

The Company mission is to make life be safe due to reliable power supply

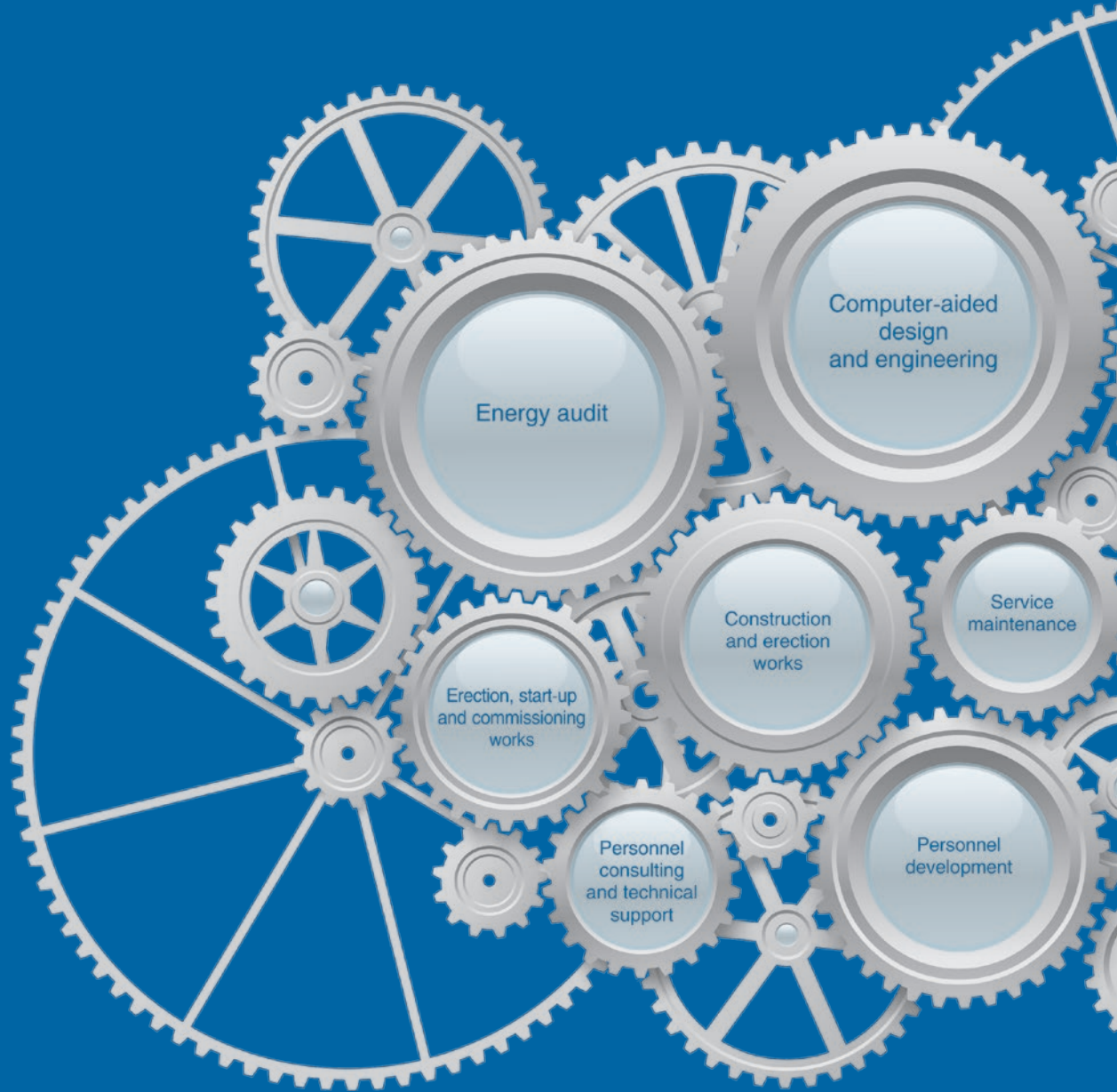


▶ The Company Structure





Complex Solutions





GAS INDUSTRY



OIL INDUSTRY



ELECTRIC POWER INDUSTRY



INDUSTRY



INFRASTRUCTURE



HOUSING AND PUBLIC UTILITIES SECTOR



ECOLOGICAL POWER ENGINEERING

Equipment Manufactured by NIPOM

Reception, conversion and distribution
of electric energy 35-110 / 6-24 kV



Closed packaged transformer substations KZPS
35-110 / 6-24 kV

Newly-Developed Design

1

Self-contained power supply of remote
objects and residential areas



Self-contained power supplies based on wind-powered
generators and solar battery and based on chemical generator

Newly-Developed Design

2

Reception, conversion and distribution of electric energy 6-24 / 0.4 kV



Block-modular substations with
concrete encasement "BKPTB"
with capacity of 1,600 kVA

Designed by NIPOM



Block-modular substations with metal
encasement "BKPTM" with capacity
up to 2,500 kVA

Designed by NIPOM



Packaged transformer cabin-type substations
up to 1,000 kVA

Designed by NIPOM



Packaged transformer indoor-installed substation "KTP" with capacity up to 3,150 kVA

Designed by NIPOM

3

Distribution of Electric Power up to 40.5 kV



Complete switchgears with composite insulation "Freecon" for currents up to 3,150 A

Designed by NIPOM



Single-side compact maintenance chambers "Omega-M" for currents up to 630 A

Manufactured by NIPOM under license of Siemens AG

Newly-Developed Design



Complete switchgears with hexafluorated sulfur insulation 8DJH for currents up to 630 A

Manufactured by NIPOM under license of Siemens AG



Complete switchgears with composite insulation "Volga" for currents up to 3,150 A

Manufactured by NIPOM under license of "PO Eltechnica"



Collection air-insulated chamber of unilateral service "Omega" for currents up to 1,000 A

Manufactured by NIPOM under license of "PO Eltechnica"

4

Guaranteed 24, 110, 220 V DC power supply



Direct-current boards "SchPT" for currents up to 2,500 A

Designed by NIPOM

Chargers-recharges "VZP" for currents up to 400 A

Designed by NIPOM



Control current cabinets "ShOT UM" for currents up to 40 A

Designed by NIPOM

5

Energy saving and mode-locking stability improving



Synchronous machine excitation systems with power up to 60 MW

Designed by NIPOM

6

Maintaining (increasing) a pre-set value of power factor (cos φ)



Reactive-power compensation unit "KRMA" and "KRM" 0.4 and 6 (10) kV

Designed by NIPOM

7

Distribution of electric power and control of electrical plants 0.4 kV



"F4"-based low-voltage switchgears
"Freecon" for currents up to 6,300 A

Designed by NIPOM



"SIVACON S8"-based low
voltage switchgears "Freecon"
for currents up to 7,000 A

Manufactured by NIPOM
under the license of Siemens AG



"Logstrup"-based low-voltage switchgears
"Freecon" for currents up to 8,500 A

Manufactured by NIPOM
under the Logstrup license of Siemens AG



Flame tight electrical
cabinets with seismic design
for low voltage equipment
accommodation

Designed by NIPOM



Cabinets "Freecon"
for accommodation of low voltage
equipment and electric wiring

Designed by NIPOM

8

Signalling (alarm) systems and directional protection against single phase-to-ground short circuits



Signalling (alarm) systems and devices
for directional protection against single
phase-to-ground short-circuits
"SNZ OZZ"

9

Trouble-free operation of electrical equipment 0.4 kV



Fast time automatic load transfer
systems "BAVR" for currents
up to 630 A

Designed by NIPOM

10

Switchboards Cases Based on in-House "Freecon"

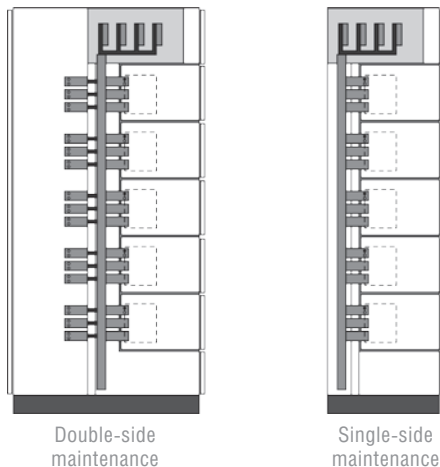
Cabinet cases based of Freecon own structural element is a ground for manufacturing of low voltage complete devices for distribution and control. Cabinets' structure guarantees freedom of electric plant and allows easy upgrading of electric plant with new customer's options.

Cabinet Versions

Standard lead-in, sectionalization and distribution cabinets	Multi-purpose cabinets (user-defined/unspecified design)
<ul style="list-style-type: none"> – Specified function of each cabinet type – Selected overall dimensions – Inner sectionalization as per types: 3a, 4b – Switching devices energy supply over rigid bus-bars 	<ul style="list-style-type: none"> – Types of completeness: from frame with a shell to a cabinet fully ready for wiring with bus-bars and universal perforated wiring panels – A variety of overall dimensions with 200 mm pitch as per width and depth – Inner sectionalization as per types: 1, 2a, 2b – Switching devices energy supply over wires or flexible bus-bars

Single-side or double-side maintenance cabinets are included into "Freecon" standard and multi-purpose cabinets. Access to a functional compartment and attachments compartment in single-side maintenance cabinets is provided at the cabinet's front face. Access to a functional compartment in double-side maintenance cabinets is provided at the cabinet front face and to a attachments compartment-at the cabinet's back side.

All cabinets of one and the same type of maintenance (i.e. single-side or double-side maintenance ones) are structurally attached and electrically connected with each other if they are installed in one switchboard with a common bus bar system. Multi-purpose and standard cabinets may be combined in one and the same switchboard, in this regard, service degree and type for all cabinets in one switchboard shall be identical.



Sectional elevation of a cabinet with bus-bar system

Advantages

- Cabinet structure is rigid, free-of-distortion and impact-proof due to a frame made of galvanized profiles fastened by original right-angle connectors.
- Metal elements have an anticorrosive coating; internal guards and mounting elements are protected with a zinc coating.
- High degree of sectionalizing (up to 4b) and protection (up to IP54).
- Max. seismic load resistance as per MSK64 scale-9 grade and high strength due to the patented method of elements interfacing and fixing.
- Wide range of cabinets to implement any electric circuits
- It is possible to order a cabinet with bus bars
- Quick and simple selection of individual solutions with the help of "Configurator Freecon" custom-made software

Overview ruler universal cabinets (one-way and two-way service)

Lead-In and Distribution Cabinet 630 A max.
(with One-Piece / Double-Piece Door)



Parameter	Value	
Rated working voltage, V	220, 380, 660	
Ground system type	IT, TT, TN-C, TN-C-S, TN-S	
Rated current, A	3,200 max.	
Versions	Completely immovable cabinet with permanently installed (removable) equipment	
Overall dimensions, mm	Width	600; 800; 1,000; 1,200; 1,400; 1,600
	Depth	600; 800; 1,000; 1,200
	Height	1,700; 1,900; 2,100
Socle, mm	Height	100; 200; 300

Overview of the model line of cabinets (one-way and two-way service)

Transformer Attachment Cabinet



Lead-In and Distribution Cabinet (One line, 3,200 A max.)



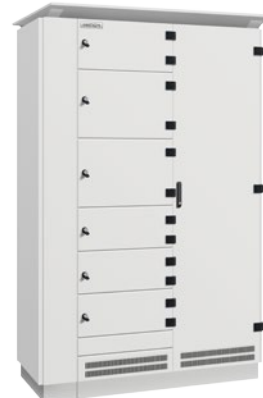
Sectionalization Cabinet



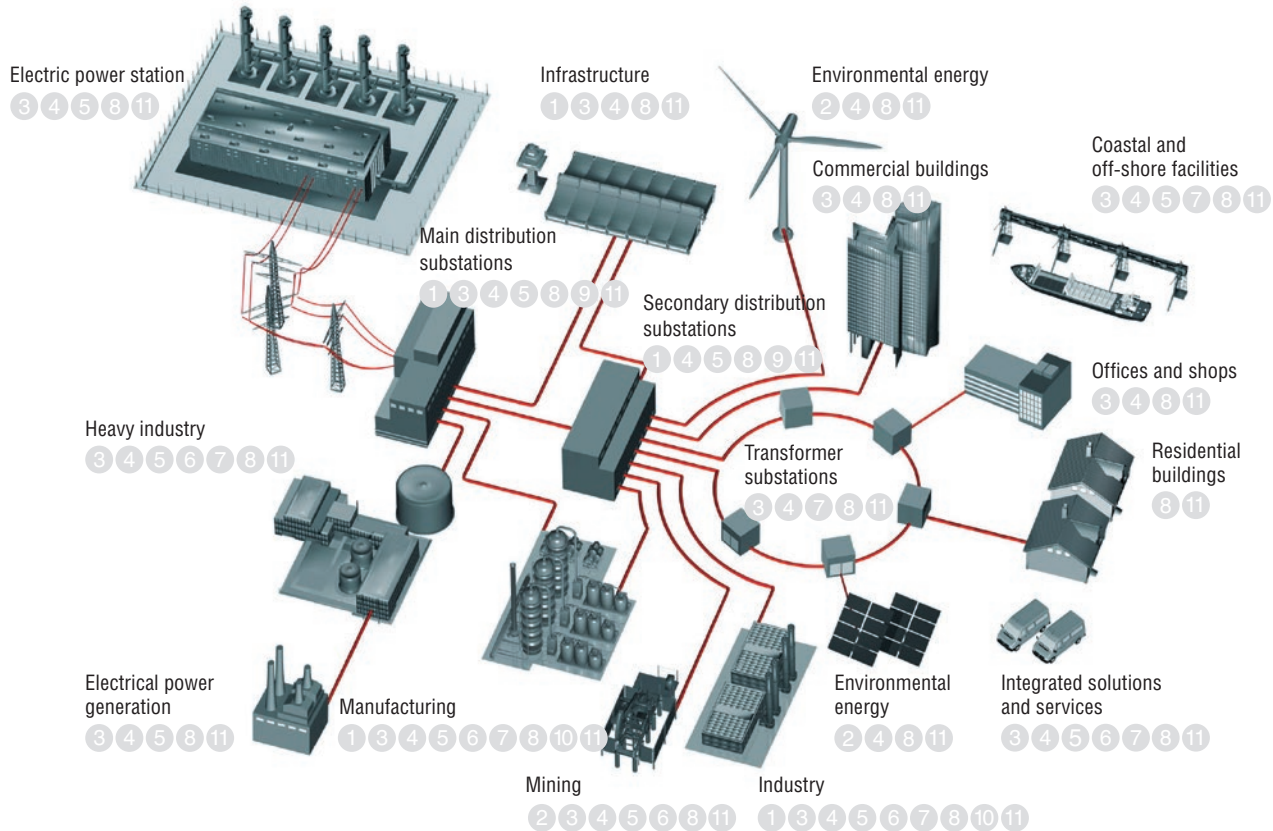
Double-Side Maintenance Distribution Cabinet (Net Current of 1,600 A max.)



Single-Side Maintenance Distribution Cabinet (Net Current of 2,500 A max.)



NIPOM Power Supply Systems Solutions



- ① Closed packaged transformer substations
- ② Self-contained power supply of remote objects and residential areas
- ③ Distribution and transformer substations
- ④ Medium voltage distribution switchgear
- ⑤ DC systems
- ⑥ Digital excitation systems
- ⑦ Reactive power compensation
- ⑧ Low voltage distribution switchgear
- ⑨ Signalling (alarm) systems and devices for directional protection against single phase-to-ground short-circuits
- ⑩ Fast time automatic transfer switch systems
- ⑪ Complex Solutions:
 - Energy audit
 - Design of power engineering facilities all kinds of voltage
 - Elaboration and manufacturing of electrical engineering products
 - Packaged equipment delivery
 - Implementation of energy control systems
 - Implementation of automated control systems
 - Erection, start-up and commissioning works
 - Construction and erection works
 - Service maintenance
 - Guarantee maintenance
 - Personnel consulting and technical support
 - Personnel development

Customers

Russia:

Gazprom

Rosneft

Transneft

Sibur

Lukoil

Rosatom

Rosseti

Rusgidro

EuroChem

UGMK Holding

EuroCement
group

Russian Railways

Nizhny Novgorod
International airport

Sochi International
airport

Olympic objects
in Sochi

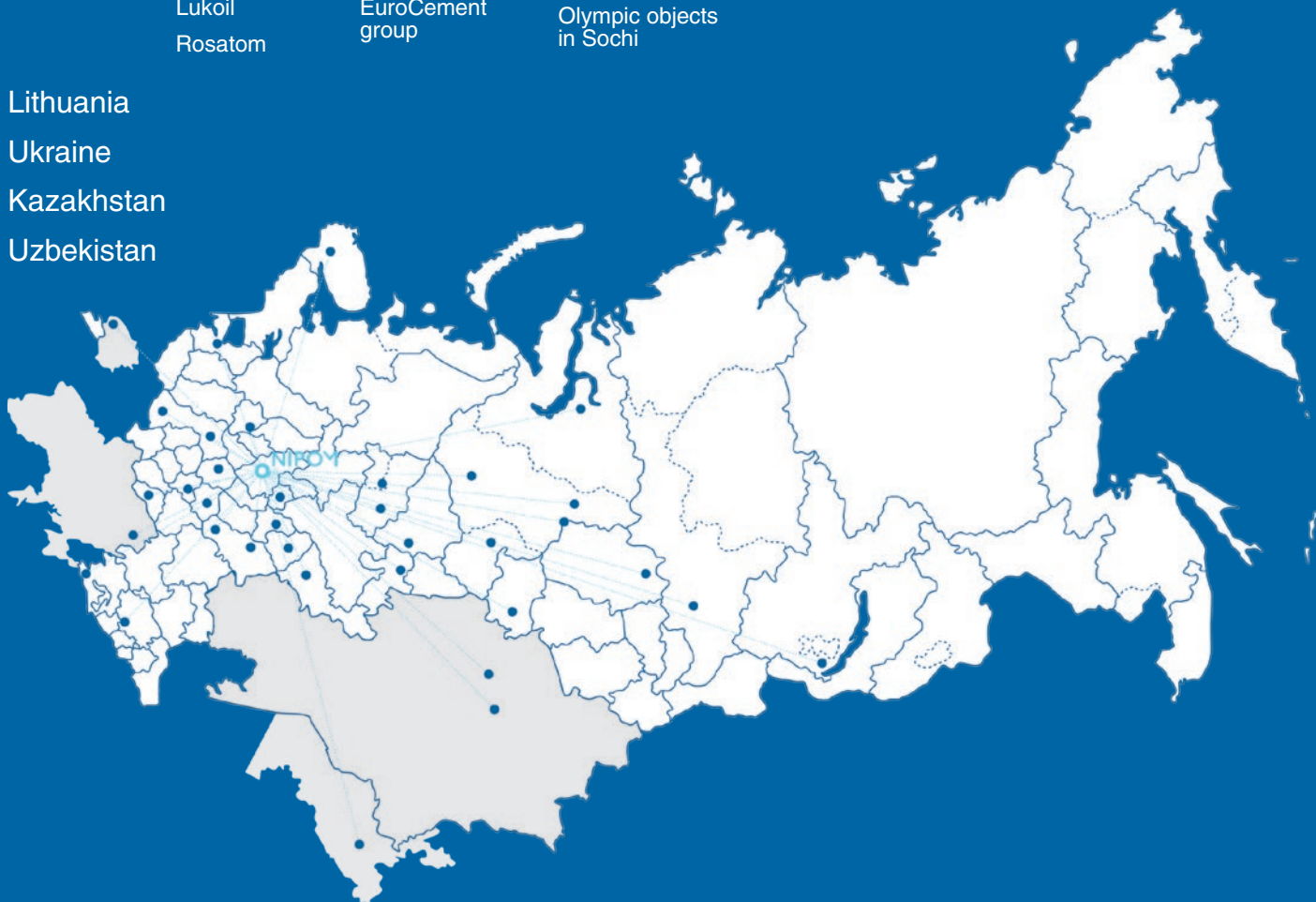
Water distribution
and utility companies
and others

Lithuania

Ukraine

Kazakhstan

Uzbekistan



Key Partners

SIEMENS

OEZA

Schneider
Electric



EATON
Powering Business Worldwide

ABB

Core Competencies



Highest level of equipment security

Nuclear plants equipment engineering and manufacture license

Maximum reliability level

Certification Systems GOST R and CU TR

Certification of equipment for seismic resistance of 9 points

Certificate of the Russian Maritime Register of Shipping

Voluntary Certification System of "Gazprom" OJSC

Register of Specifications and Test Programs and Methods of "AK Transneft" OJSC

Certification of equipment for its compliance with Specifications of "FGC UES" OJSC and "Rosseti" OJSC

Certification of equipment for its compliance with Specifications of "NK Rosneft" OJSC



EC Declaration of Conformity

High-tech production

The auditing of Siemens, Gazprom, Transneft, Rosneft, FGC UES and others was successfully passed



Certified in Quality Management Systems

ISO 9001:2008 "IQNet"

ISO 14001:2004 "IQNet"

STO Gazprom 9001-2012

Licensee of global energy leader — Siemens

Europe's No.1 license for production of "Sivacon S8" low-voltage distribution switchboards

Global No.1 license for production of 8DJH medium-voltage switchgear

Solution Partner Automation status certifying the competence to implement Siemens-based automation solutions

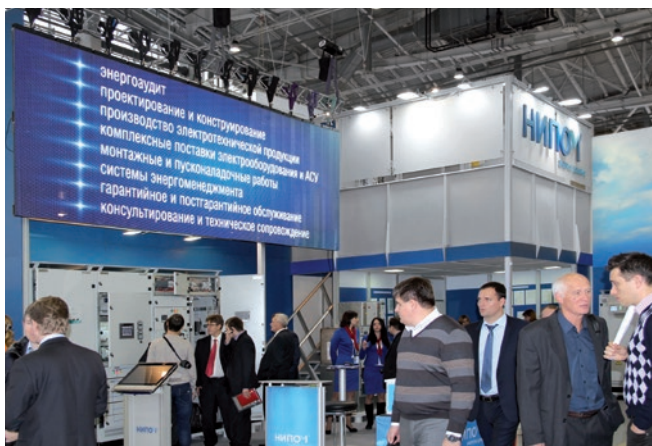
The qualification of a supplier Ready for Business with the ability of participation in international projects of Siemens

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NIPOM 2015 Exhibition Calendar

april	13–17	“Hannover Messe” Hannover, Germany
may	19–22	Scientific & Industrial Forum “Great Rivers” Nizhny Novgorod, Russia
june	23–26	“Oil & Gas” / MIOGE Moscow
november	19–21	ENES Moscow
december	1–4	“Electrical Networks of Russia” Moscow



We express our readiness:

- To present our Company, the line-up of manufactured equipment and services on the territory of companies and entities concerned
- To confirm the compliance of products manufactured by NIPOM with customers' corporate requirements
- To provide opportunities for the arrangement of NIPOM-based professional communication at corporate meetings, seminars, conferences and sessions

You are welcome to visit:

- Industrial complexes of NIPOM at your convenience
- The expositions of NIPOM at the Exhibition

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