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### SAINT PETERSBURG ELECTROTECHNICAL CO. (SPBEC) IN A NUTSHELL

Fully private

Established in 1995 in Saint Petersburg, Russia

- Leader in engineering and EPC/EPCM\* services for factories
- > 1250 clients in 4 continents
- > 600 employees





### **OUR SERVICES FOR FACTORIES**

For new factories and modernization projects:

□ Automation including installation and commissioning

- Electric Power Distribution including installation and commissioning
- Engineering, Procurement, Construction (Management) (EPC/EPCM)



### WHY SPBEC?

- **Clientele orientation** that allowed a growth from 1 to 600 employees in 20 years
- **Innovation focus** supported by cooperation with universities (e.g. in Switzerland)
- Experience with flagship European/international companies and their requirements
- Deep knowledge of the Russian/CIS markets (e.g. GOST technical standards, specific documentations)
- **Readiness to conduct projects in "difficult countries"** anywhere in the globe



### **OUR EXPERTISE**





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### ENGINEERING/EPC/EPCM/ TURN-KEY SOLUTIONS





**MES** (Manufacturing Execution System)

**SCADA** (Supervisory Control And Data Acquisition)

ICS (Industrial Control Systems)

**PLC** (Programmable Logic Circuits)

PROCESS AUTOMATION I MANUFACTURING AUTOMATION



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### **ELECTRIC POWER DISTRIBUTION**

- Complete power distribution systems with 35-10-6-0.4 kW voltage (transformers, transformer substations, switch gears and control gears, KSO, relay protection, diagnostic equipment, etc.)
- □ Reduced-current start devices
- Infrared heating systems (infrared radiant burners, emitting heaters, gas-fired air heaters, warm air curtains, etc.)
- Creation of a facility's own power generating capacity and improving energy efficiency





# CONSTRUCTION

 $\Box$  Design and development works

 $\Box$  General contracting and construction works

 $\Box$  Serving as a technical customer

□ Preparation and commissioning of facilities

□ Warranty and service facilities





### DISTRIBUTION OF PROJECTS BY INDUSTRY

Metallurgy				
Mining		11%		
Oil & gas	5%			
Power		11%		
Pulp & paper			16%	
Construction	2%			
Machinery	5%			
Other		8%		

Automotive, Cement & Glassworks, Chemicals, Consumer Goods, Food & Beverage, Woodworks



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### A SELECTION OF OUR CLIENTS





## OUR REGULAR SUPPLIERS





# **INTERNATIONAL PRESENCE**

### **CIS countries**

#### Kazakhstan

We have implemented major joint projects with PAUL WURTH (blast-furnaces), SCHENK PROCESS (a charge preparation line) and SMS SIEMAG (converter production) at a metallurgical plant of Arcelor Mittal Temirtau JSC, Kazakhstan.

The projects in Kazakhstan include the creation of an automated process control system for hydrocyclone units for Kazakhmys Corporation LLP, a package of power supply, control and grinding mill automatic control works in Zhayrem for Loesche GmbH, etc.

#### Belarus

The automation of an electric arc furnace for Republican Unitary Enterprise (RUE) Byelorussian Steel Works.

PM-14 integrated production line for slitting machines and a transport and packaging line for Republican Manufacturing Unitary Enterprise (RMUP) Newsprint Mill, Škłoŭ, and other projects.

#### Ukraine

A package of measures for the development of "a data recording system for an outer covering line" for NTRP OJSC, Dnepropetvrovsk. Supply of hot spares and diesel generators for Westron LLC, Kharkiv, and other projects.

#### Europe

Commissioning works for Schnider Electric, Norway, and EFANSA SISTEMAS DE CONTROL, S.A., Italy Troubleshooting for Maersk, Spain, and other works.

### Asia

The company has carried out commissioning works in Thailand for General Electric, in Pakistan for GEPower (Thermodyn), in Georgia for Alstom, in Korea for Sakhalin Energy Investment Company Ltd. and in Qatar for QEWC.

Together with FreyIngenieure, SPBEC experts have worked to program controllers for a car leak testing conveyor line for an Audi factory in China. The company has also accomplished other projects in Asia.

#### Africa

The official representative of SPBEC in Morocco and throughout the North Africa region is SIIRS.A. (a joint venture between a Moroccan partner and SPBEC).

The company's experts have performed commissioning works in Nigeria for Rockson Engineering, in Algeria for Fertial SPA, etc.

### **South America**

The SPBEC-MINING Division which specializes in mining projects is actively developing its business in Chile in partnership with Becker Mining System GmbH.



# SOME REFERENCE PROJECTS BY INDUSTRY

\* More information about other projects you can look at http//:www.spbec.com



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## METALLURGY

Sintering - APCS material traffic with realization of continuous weighing conveyor

Blast Furnaces – turnkey projects of modernization of 6 furnaces starting from the track feed to the control top-loading systems and stoves

Steelmaking – APCS for converter process, preparation charge

Rolling – APCS for collecting roller table, reel group, hot rolling mill 2000 harvesting group, etc.







#### CASE STUDIES

# **ENERGY**

#### OJSC APATIT

Reconstruction of the heating and hot water supply systems and construction of modular electric boiler

#### JSC IRKUTSKENERGO – UTS TETS-9

Expansion of the automatic system of dispatching technological management (ASDTM) pump stations.

### JSC DIAKONT – THE KOLA NPP

Development of 7 complexes automatic digital of brushless regulators of the synchronous regulator for system of emergency power supply.

#### **OJSC FORTUM**

Chelyabinsk CHPP-3. Introduction of an automated control system of the additional pump unit of the peak boiler room.

#### OJSC APATIT

Construction of 150 kV power substation





### ENERGY

JSC TGC-1 KOLSKAYA

The control system of hydraulic units shaft runout

JSC KOLYMAENERGO

Implementation intrabuilding warning system for the needs of the branch "Kolymskaya HPP I.Frishtera"

JSC SEVKAZENERGO

Petropavlovskaya CHP-2. Reconstruction of the electrical part of the clarified

water pump number 2, JSC "OGK-3" Kharanorskaya TPP. Upgrade ACS 3, modernization LSAU

#### JSC E.ON Russia

Berezovskaya TPP. Design work on the replacement of

motor fuel area.

JSC OGK-2

Krasnoyarskaya TPP -2. Reconstruction of relay protection unit №7

#### JSC KAMCHATSKENERGO

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110/35/10 kV Kavalerovskaya substation. Upgrade of 110/35/6 kV "Kavalerovskaya substation "





### MINING

#### OAO JSC ALROSA - MINE «MIR»

Expansion, opening and working off of sub career stocks to a mark 615m. Objects of a superficial and underground complex. First start-up complex. System of power supply110/6,3/6,6kv

#### ALROSA GROUP, DIAMOND FIELD OF M. V. LOMONOSOV

Complex works on systems of automation and power supply

#### THE AUTHORIZED SYSTEM OF DISPATCHING MANAGEMENT (ASODM) OF UNDERGROUND MINE

Installation and construction works, development of production schedules with examination of industrial safety and performance of commissioning on objects Mir Mine of ASODU a subsystem "Airing the GVU, GKU, VKU Complex"





### MINING

#### JSC NORILSK NICKEL MMC

ACS of the alarm system, centralization, blocking of underground railway transport

#### CHINA ENERGY COMPANY SDIC, KUZIDONG MINE

ACS of underground complexes





## **PULP & PAPER**

#### JSC ILIM GROUP, KORYAZHMA

BDM-1, BDM-6, PRS-2, PRS-4. A complex control system of the automated electric drive. BDM-2, BDM-5. Replacement of a control system of quality

#### PAPCELA.S. JSC SUKHONSKY PULP AND PAPER MILL

Reconstruction of system of electro providing, the electric drive and industrial control system the airborne combat vehicle again established the airborne combat vehicle.







### **PULP & PAPER**

#### JSC MONDI SYKTYVKAR

PM 14 - line package management system.

PM-21 Integrated Management System automated electric drive.

PM-11 Reconstruction of the drive.

#### **JSC SPB KPK**

Modernization of the automated control system for data cultivation of mill KDM1.

System of power supply and ensuring smoke removal of a warehouse of waste paper with fire signals of system and cellulose. A complex of works on design, delivery and installation of the automated information and measuring system of the technical accounting of electric energy

#### JSC SEGEZHSKY PULP AND PAPER MILL

Modernization of system of visualization of technical parameters on No. 10 airborne combat ventionation about of systemior the submarket by the submarket of th





# OIL & GAS

#### LUKOIL TORGOVY DOM LLC

Turnkey construction and installation of 2 systems for fast automatic load transfer between 6 kV sections

#### **GAZPROM NEFT – KHANTOS LLC**

Work package Installation of fast-acting load transfer start-up devices at 2 client substations No substitution of existing high voltage switching elements (6kV)





## MACHINERY

#### PETROZAVODSKMASH

Design documentation Construction of pipe heat treat furnace Workshop gas pipeline upgrade

### JSC MACHINE BUILDING FACTORY OF PODOLSK

Computerized control system for steam generator Design, supply, installation and commissioning





# AUTOMOTIVE

#### VOLKSWAGEN GROUP RUS PLANT

Car leak test: equipment supply, installation, commissioning.

#### RENAULT

System of ensuring reliability of bolted connections Control system of screw gunon the basis of the Siemens controler in shop of assembly







## **CEMENT & GLASS WORKS**

**IBAU HAMBURG (Germany)** Control system for pneumatic transport system

POLOTSK-STECKNOVOLOKNO (Belarus)

Packaged automated system for compressor





### **CHEMICALS**

ALTAI-KOKS Coke pusher machine upgrade Leveler beam drive Ram beam drive Positioning system drive





### **FOOD & BEVERAGE**

#### PEPSICO

Projects on water treatment / the Return mineralization of the prepared water (the status of the project: beginning of realization of works) Modernization of production lines. Transportation automation pallet

#### HEINEKEN

Delivery of electric equipment. Development of the project, installation and adjustment of system of the analysis of concentration of the substances CO2 on branches of the company





### **FOOD & BEVERAGE**

#### COCA-COLA EURASIA

Automation and control systems for the Coca-Cola Companys plant. Automation and control system of the boiler plant

#### AGROTORG - GATCHINA FEED MILL

The control weigher sistem

### CHOCOLATE FACTORY IN STUPINO / MOSCOW

Optimization of working space. Reconstruction of industrial complex on production of confectionery. Replacement of control pillar of the line of transportation and dozation of flour. Delivery of electrotechnical production. Supply of equipment. Chief installation of illuminants. Wiring of sewer pump stations. Reconstruction of industrial complex. Commissioning.





# CONSTRUCTION

#### VELSKY WOODWORKING COMBINE. TRADEMARK "VELSKY LESTM"

Construction of "turnkey" sawing shop.

#### **NOVARTIS NEVA**

General in a row and architectural supervision "to a redesign of scientific-industrial complex on development and production of medicines"





### SHIPBUILDING

#### MINISTRY OF INDUSTRY AND TRADE OF RUSSIAN FEDERATION

Development of technology and the creation of a prototype ship power object on liquefied natural gas to equip ships of inland and mixed navigation



### **OUR GROWTH**





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### **SUMMARY STATEMENTS**

SPBEC is a reliable, local source of expertise for companies with factory operations or interests in Russia and the CIS. SPBEC completes projects to international standards by accessing the knowledge and creativity of its workforce.





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## **THANK YOU!**

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