

ANNUAL REPORT
2019



 **PPA CONTROLL®**

2 Managing Director's Statement

Review of the company overall development in 2019

The year 2019 is one of the most successful years in the contemporary history of the PPA CONTROLL, a.s. In the overall review of the group's results for 2019, we achieved the best results since the company's transformation in 1991-1994, in terms of consolidated turnover of €170.5 million, as well as the total amount of profit before taxing at the level of €14.8 million. We exceeded the results of the all-time most successful year of 2014 (€123.8 million of revenue and €14.5 million of economic result before taxing) by €46.7 million in revenues and about €0.3 million in economic result before taxing. It is our joint achievement of the successful business activities of all companies in the group.

PPA ENERGO s.r.o. continued in achieving excellent results, the company has been establishing itself very well in foreign markets, the most successful orders were EMO 3,4 - JOB 12 and E05, Samsung Hungary – stages II and III, SDIHU - Busduct, Mondi SR, etc.

The outstanding year was recorded by PPA INŽINIERING, s.r.o. in their extensive deliveries and services within the reconstruction of the FELTON thermal power plant, but also thanks to contracts in the field of transport technologies - Bôrik Tunnel, ISD Piešťany - Svarepec and Trnava - Horná Streda and other contracts such as Martinská teplárenská, Košická Futbalová Aréna (Košice Football Arena), etc.

PPA Power DS s. r. o. also exceeded their planned results. Despite the pressure of competition and the customers themselves, the company has achieved growth in its traditional sector. An excellent result of the activity was launching a joint line infrastructure project in D1 Park Senec with a total investment of €5 million, thanks to which the company achieved revenue growth from capacity sales as well as an increase in energy supply and management performance.

PPA TRADE, spol. s r.o. also contributed to the overall success of the group by exceeding its planned pre-tax economic result by €124,000.

The results of the group are interesting in terms of the total amount of parameters achieved, as well as in relative terms by means of selected financial indicators. In addition to



excellent profitability, we have improved wage costs, productivity or added value per employee. These results are better than the values we planned within the Strategy 2021.

Expected future development of the company

The PPA Group is well prepared for business in the future. For 2020, the planned volume of the services performed is at the level of €120 million. Majority of the volume has already been contracted. These are projects and supplies in our regular and usual areas, such as nuclear energy, conventional energy, services for transport infrastructure, supplies for industry, an increasing share of foreign implementations as well as growth of services and supplies in the field of utility infrastructure, local distribution and energy management.

The company's top management is expecting the impact of the COVID-19 crisis on the operations and results of our companies during the year will be lowest possible, as we are successful in winning tenders in a vacant market space, which normally would not be possible. If the decline and shortfall in our traditional sales are 20% and the increase in new orders is 10%, the overall negative impact on our company should not exceed a 10% decline in our revenues. The top management of the company is convinced that due to the timely and correct reaction of our management, hard work and motivation of our employees, we will meet the 2020 plan of revenues and economic results in the originally planned values.

Ing. Bystrík Berthoty
Managing Director

4 About the company
PPA CONTROLL, a. s.



General Information about the Company

Legal identity	
Business name:	PPA CONTROLL, a. s.
Registered office:	Vajnorská 137 830 00 Bratislava
Legal form:	joint-stock company
Company ID:	17 055 164
VAT Reg. No.:	SK2020459078
Date of incorporation:	September 2, 1991
Stock capital:	€ 1,052,008

The Company is incorporated in the Bratislava 1 District Court Commercial Register Section Sa, Insert No. 159/B

Corporate Philosophy

As a engineering and supply company in the field of electric systems, instrumentation, control and process automation we can look back at over 65 years of success, while currently being in a stable financial position. Furthermore, we would like to continue providing our partners with full, professional services of the highest quality and optimal solutions to help them streamline their operations and raise competitiveness. We are creating a stable environment for our staff that encourages professional and personal growth. Our main goal is for the company to achieve sustainable growth and strengthen its stable position in the domestic and international market.

The Company's basic Values

The Company endeavours to ensure that all its employees develop their personal efforts aimed at achieving success together while proceeding based on the following fundamental values:

- Customer needs, expectations, and satisfaction are paramount
- Negotiating in a professional and accommodating manner and providing services at the maximum level of quality
- Developing skills and professional growth of our employees
- Transparency, honesty and integrity
- Compliance with legal and normative requirements, responsible quality and safety management, environmentally friendly approach

Company Milestones and History

1951	ZPA-DP Praha (Prague Industrial Automation and Supply Company Works) founded
1969	Branch office in Bratislava (ZPA-OZ) founded
1985	Elektromont, k.p. founded in Bratislava with the merger of ZPA-OZ and Elektromontážne závody Bratislava (Bratislava Electro Plants)
1990	Elektromont, s.p. in Prague and its suppliers throughout the ČSFR liquidated and PPA, š.p. founded in Bratislava
1991	PPA CONTROLL, a.s. established
1997	Received certificate of quality under STN EN ISO 9001
2013	Received certificate of integrated management system under ISO 14001 – Environmental Management and OHSAS 18001 – Occupational Health and Safety
2017	acquiring the Safety Management System Certificate according to the SCC [®] : 2011 standard
2019	Extension of the scope of certification according to the ISO 14001 standard - Environmental management system and ISO 45001 - Occupational health and safety management system

Line of Business

Studies, designs, deliveries, installation, commissioning and services in the areas of:

Instrumentation and Control Systems

- Measuring temperatures, loops of pressures, pressure differences, flows, levels, displacements and other physical variables
- Special measurements, detection of toxic combustion gases, environmental measurements
- Systems for analyzing liquids and gases
- Control valves and actuators
- Regulators and evaluation systems
- Connections to control and LV systems

Automated Control Systems

- Control systems for technological processes (DCS and PLC systems)
- Building control systems
- Systems for collecting and evaluating energy information
- Process analysis and creation of user software
- Commissioning of technologies and optimization
- System integration
- Visualization and operator control of technological processes

Electrical Systems

- LV and HV underground cable lines
- LV, HV and UHV transformer and substation
- LV cabling
- Power protection
- Building cabling
- Weak current systems (fire, intrusion, CCTV, etc.)
- Parking systems
- Voice communication
- Search and repair the faults of LV power cables (wiring)
- Search and location the ground electrical and communication lines

Switchboard Production

- 0.4 kV LV SMO switchboard (Rittal, Sarel, Proflin, Schrack enclosure)
- 0.4 kV LV switchboard for nuclear power plant conditions (SMO-S, SBO, NRS-S)
- RVB modular switchboard with withdrawable blocks (Logstrup boxes)
- System switchboards for control systems, servers and PC
- Switchboards for industrial and data communications
- Power-factor correction switchboard
- Wall-mounted NRS and NRS-P switchboard
- Control room panels and racks
- Road signs

Information and Telecommunication Systems

- Integrated light-current distributors
- Data LAN, MAN and WAN networks
- Cisco solutions
- Structured metallic and optic fiber cabling systems
- Data centers
- Search and repair the faults of communication metallic and fiber optic cables

Technological Equipment for Motorways and Tunnels

- Supply of electric power for tunnels - HV, LV, UPS, backup sources
- Tunnel lighting
- Tunnel ventilation
- Tunnel radio
- Radio connection in tunnels
- Measuring of physical variables in tunnels
- Emergency call telephones
- Measuring meteorological variables



- Traffic monitoring systems
- Traffic management systems – variable traffic signs, traffic control systems
- Security systems - rooms (fire alarm system, electrical security system, CCTV, voice alarm control)
- Technology control systems
- Integration of individual technological devices
- Operator station - control
- LED variable traffic signs – exclusive representation of the DMV manufacturer

Energy Outsourcing

- Managing power distribution and equipment
- Maintenance, repair, servicing, technical inspection and testing of electrical equipment
- Measuring and monitoring of electric power
- Supplying electricity and optimizing electric power consumption
- Audits

Construction and Development of Infrastructure in D1 Park Senec

- roads
- HV and LV power lines
- gas pipeline
- water pipeline
- foul water drainage and storm sewers

Comprehensive Industrial Site Management

Management and administration reports

- Preparing and reviewing budgets, records of costs and management processes, coordination of suppliers

Technical management

- Servicing, maintenance and repairs of technical facilities
- Expert inspections and technical testing of classified technical equipment:
 - electrical
 - gas
 - pressure

Non-technical site management

- Waste management, road maintenance, green maintenance, cleaning, guard service

Operation and Maintenance

- Warranty and post-warranty service and maintenance of all supplied systems and equipment
- Calibrations and repairs of physical and chemical measurement systems
- Calibration of temperatures, pressures and electrical quantities AC/DC
- Infrared measurements



CORPORATE SOCIAL RESPONSIBILITY

All companies within the PPA CONTROLL Group follow the principles of Corporate Social Responsibility in their business activities.

In setting the company's goals, various aspects (economic, social, safety, health, environmental, and the like) are carefully considered with regard to the requirements and expectations of all stakeholders. It is the thorough definition of stakeholders, either as individuals (e.g. employees, end users, etc.) or as groups (customers, suppliers, public authorities, supervisory board, etc.), and the identification and fulfilment of their needs and expectations that contributes significantly to building mutual relationships based on the pursuit of a common goal. The commitment to carry out activities in accordance with the company's goals and values, to take responsibility for the company's activities and to actively contribute to the improvement of individual environments (social, economic, work, etc.) remains the basic principle of responsible company management.

Through the necessary effective communication on the importance of applying the established principles and subsequent integration into the daily work activities of all employees, we want to ensure understanding and implementation of these principles at all organizational levels and thus strengthen

the overall contribution of the PPA CONTROLL Group to socially responsible behaviour. "RESPONSIBLE SAFETY" is one of the most important principles of responsible business in the PPA CONTROLL Group. Through our many years of activities in this area, provided by experienced and professionally qualified employees, we significantly contribute to increasing the level of safety not only within the PPA CONTROLL Group, but also for our customers in Slovakia and abroad (e.g. increasing the safety of nuclear power plants, technology, traffic and all of its participants, the safety of operations, managed industrial facilities, the safety of employees, infrastructure and working environment, IT security, data security, etc.)

Quality Management System

PPA CONTROLL, a.s. and its subsidiaries have recently focused mainly on changes resulting from new revised standards, whether in the field of quality, environment or safety. The changes had an impact not only on the processes themselves and their understanding by the process owners, on the content and scope of the necessary company documentation, but also on the very approach and view of managers and employees on the management and implementation of relevant company processes. Not only the requirement FOR a quality management system standard for risk-based thinking, but also the market and work environment itself, leads the company's management to an increased need to consider risks and opportunities when planning their next steps, as well as the direction of the company.



Great emphasis continues to be placed on ensuring that activities/processes are performed in a controlled manner to ensure that the work is carried out in accordance with customer requirements and expectations, government, control and supervisory authorities and other stakeholders, through the personal input and commitment of each employee. Despite the ever-increasing specific requirements, not only in the field of management systems, the company is able to respond flexibly and ensure their fulfilment. The companies of the PPA CONTROLL Group demonstrate their flexibility and promptness in meeting specific customer requirements already at the stage of the qualification process. Results of efficiency assessment of the quality management system and results of identification of opportunities, risks, and internal and external factors are used within long-term planning, product/service innovations, and improvement of quality of supplied products and services.

Safety Management System according to ISO 45001 and SCC, Environmental Management System according to ISO 14001

In 2019, the activities of PPA CONTROLL, a.s. focused mainly on integrating the requirements of the new standard of the safety management system according to the ISO 45001 standard into business processes and passing a successful re-certification audit, according to the ISO 14001 standard and according to the new ISO 45001 standard. Long-term application of individual management systems not only in the parent company PPA CONTROLL, a.s., but also in the subsidiaries, and continuous fulfilment of specific requirements for safety, work environment and health and environmental protection, were completed by also extending the certification of safety management system according to the ISO 45001 standard and environmental management according to the ISO 14001 standard to the largest subsidiary PPA ENERGO s.r.o. and its activities, which is another important step towards achieving a high culture of safety, health, work and living environment.

Company Statutory Bodies and Organizational Structure

Executive Board

Ing. Bystrík Berthoty, Chairman

Born August 9, 1965 and a graduate of the University of Economics in Bratislava. He joined the Company in 1999. At present, he has been Managing Director since 2012 and Chairman of the Executive Board since 2015.

Ing. Ladislav Ondriš, Vice Chairman

Born November 22, 1956 and a graduate of the University of Economics in Bratislava. Between 1999 and 2014 he was Chairman of the Supervisory Board. He has been Vice Chairman of the Executive Board since 2015.

Ing. Zoltán Lovász, Member

Born April 18, 1969 and a graduate of the Slovak University of Technology in Bratislava. He joined the Company in 1999. He was appointed to his current position of Director at PPA ENERGO s.r.o. in 2009. He became a member of the Executive Board in 2012.

Ing. Marián Kolenčík, Member

Born September 19, 1967 and a graduate of the Slovak University of Technology in Bratislava. He joined the Company in 1990. He was appointed to his current position of Director at PPA INŽINIERING, s.r.o. and became a member of the Executive Board in 2013.

Ing. Erik Vicena, member

Born November 28 May 1975 A graduate of the Slovak University of Technology in Bratislava. He joined the company in 2010. He has held the current position of Deputy Director General for Trade Affairs since 2018. He became a member of the Executive Board in 2019.

Supervisory Board

Mgr. Darina Pavlů, MBA, Chairman

Born December 14, 1981. She graduated from the Faculty of Law, Comenius University in Bratislava, and in Business Administration, EADA Business School in Barcelona. She has been holding the office of Chairman of the Supervisory Board since 2018.

Ing. Karol Pavlů, Vice Chairman

Born December 19, 1941. Graduate of the University of Economics in Bratislava. In the past, he held offices in several bodies of the Company: chairman of the Supervisory Board (since 1991), vice-chairman of the Board of Directors (since 1996), vice-chairman of the Supervisory Board (since 2002), and chairman of the Supervisory Board (since 2014). He has been holding the office of Vice Chairman of the Supervisory Board since 2018.

PhDr. Darina Pavlů, Member

Born June 4, 1946 and a graduate of the Faculty of Philosophy at Comenius University in Bratislava. She was a member of the Supervisory Board since 2005, the vice-chairman of the Supervisory Board since 2012, and since 2018, she has been a member of the Supervisory Board.

Ing. Mgr. Tibor Gregor, Member

Born June 29, 1971 and a graduate of the Faculty of Technical Cybernetics at the Military Academy in Liptovský Mikuláš and the Faculty of Management at Comenius University in Bratislava. He became a member of the Supervisory Board in 2011.



Senior Management

Ing. Bystrík Berthoty
Managing Director

Ing. Erik Vicena
Deputy CEO for Business Affairs

Ing. Marta Kramárová
Finance Director

Ing. Milan Michalík
Commercial Director

RNDr. Viera Cehláriková
Management Systems Director

RNDr. Valéria Kormanová
Human Resources Director

JUDr. Marek Jurina
In-house Legal Counsel

Subsidiary Company Management

PPA ENERGO s.r.o.

Ing. Zoltán Lovász
Executive Director

Ing. Katarína Krchnáková
Finance and Human Resources Director

Ing. Peter Spilý
Commercial Director

Ing. Lukáš Dubrovay
Technical Director

Ing. Peter Špaňo
Production Director

PPA INŽINIERING, s.r.o.

Ing. Marián Kolenčík
Executive Director

Ing. Igor Jamnický
Director of Traffic Technology
Department

Ing. Karol Letko
Foreign Engagement Director

Kvetoslava Smejová
Finance and Human Resources Director

Ing. Roderik Gröne
Assembly Director

Ing. Stanislav Uhlár
Technical Director

PPA Power DS s. r. o.

Ing. Roman Nemček
Executive Director

Peter Hatina
Director of Facility Management
Department

Ing. Michal Kolimár
Director of Energy Distribution
Department

Ing. Eva Turňová
Director of Economic Department

PPA Power s.r.o.

Ing. Roman Nemček
Executive Director

PPA TRADE, spol. s r.o.

Ing. Peter Gašparových
Executive Director

PPA SLAVUTIČ KYJEV, s.r.o.

Ing. Peter Gašparových
Executive Director

PPA CONTROLL CZ, a.s.

Ing. Milan Michalík
Executive Director

PPA RUS, s.r.o.

Ing. Viliam Švec
Executive

**PPA CONTROLL
Magyarország Kft.**

Ing. Tibor Csernák
Executive Director

Human Resources

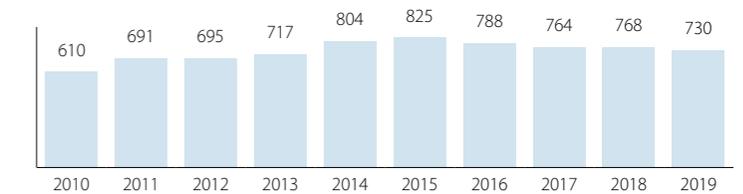
Structure of Employees

The company's personnel policy was focused on acquiring a qualified workforce, on quality and fast adaptation of employees and building the employer's brand. PPA CONTROLL, a.s., has been active in the area of personnel marketing, focusing on secondary schools and universities. We have been systematically developing cooperation with secondary schools focusing on electrical engineering and tertiary education institutions focusing on various areas of engineering, offering them excursions, practical training programs. We actively participated in projects aimed at educating students in choosing their future career. As at 31 December 2019, the companies of the PPA CONTROLL, a.s. group employed 730 employees. The Employee Stability Index increased to 69.3% in 2019 (the percentage of employees working with us for over 5 years out of the total number of employees). Out of the total number of employees, men account for 84% and women account for 16%. The average age in the company is 46 years. The key positions that were most often filled in 2019 included electricians, chief fitters, heads of implementation, maintenance workers with electrical authorization and project managers.

Development of Employees

Activities in the field of education were focused on the overall development of employees, with an emphasis on strengthening technical skills. In accordance with our business strategy, we also pay attention to the language training of our employees and their readiness to operate in foreign markets. At the same time, education is a way of educating future leaders, supporting internal candidates in developing new competencies and preparing them to take on more responsibility. In 2019, the company invested EUR 235,104 in staff training, representing EUR 318 on average per employee. PPA CONTROLL, a.s., appreciates the loyalty of its employees and puts an emphasis on the care and stabilization of its employees in a long run, not only through financial remuneration but also through a system of benefits, support for healthy lifestyle, sport, recuperation and by granting awards for innovative ideas and initiatives.

Number of employees in PPA CONTROLL group



Number of employees by Education

	2018	2019	% 2019
Primary	7	8	1 %
Secondary	424	400	55 %
University	337	322	44 %
Total	768	730	100 %

Number of employees by Age

	18-29 r.	30-39 r.	40-49 r.	50-59 r.	Over 59	Average Age
2018	86	190	210	208	74	45
2019	75	172	194	200	89	46

Number of employees by Gender

	2018	2019
Women	133	120
Men	635	610
Total	768	730

Employee structure by Professions

	2017	2018	2019	% 2019
Management	26	24	25	4 %
Sales and Procurement	74	68	78	11 %
Project management	35	46	52	7 %
Designers, programmers	140	149	135	18 %
Administration	82	85	80	11 %
Technicians	162	155	135	18 %
Assembly workers	197	228	212	29 %
Others	48	13	13	2 %
Total	764	768	730	100 %

References

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ENERGY

Slovenské elektrárne a.s. Bratislava, Jaslovské Bohunice Nuclear Power Plant

V-2 Nuclear Power Plant Units 3 and 4

- Replacing existing emergency arc protection systems in substations at NPP V-2 Units 3 and 4, the Pečeňady Central Filtration Station and the Trnava Exchanger Station
- Replacement of accumulator batteries used to supply safety systems of V-2 NPP (system installations that ensure liquidation of primary circuit accidents and reactor aftercooling) - design documentation, assembly, testing and commissioning (as subcontractor of EnerSys)
- Replacement of 0.4 kV ARV circuit breakers during GOs in Bohunice NPP in 2018 and 2019 - supply of circuit breakers and related documentation, work on replacement of circuit breakers during GOs, tests, approved documentation, training
- Replacement of batteries 1.2EE04, 14, 05 and a diesel generator station (a subcontract for EnerSys s.r.o.)
- Replacement of the Bently Nevada system - part of TPS - elaboration of an implementation project, supply and assembly of equipment and components, activation and commissioning of the work
- Verification of the TQ shower system nozzle capacity at Units 3 and 4 (measurement and evaluation of the capacity)

- Repair of service stations of primary and secondary circuit controllers by replacement of obsolete HW and upgrade of SW of the service station and ensuring operability and long-term availability of spare parts
- Change of protection of DS switchboards (electric welding network in controlled zone)
- Replacement of degraded sections of temperature measurement cables in the reactor shaft and steam generator box
- Innovation of dP measurements on MCP - replacement of sensors, valves and valve sets
- Optimization of the Pečeňady Pumping and Filtration Station - one-way part - elaboration of project documentation, realization of the work and performance of tests
- Installation of hermetic bushings and adjustment of actuators (subcontract for Škoda Slovakia a.s.)

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Mochovce Nuclear Power Plant

Mochovce NPP Units 1 and 2

- Severe accident management – I&C and electric systems (as subcontractor of VUJE) for the following subprojects:
 - Long-term heat removal from the hermetic zone including modification of the outlets for flooding the hermetic zone
- Implementation of the investment project Change of electrical and CMS coupling at 6 kV outlets of switchboards, change of protection of 6 kV outlets on transformers (subcontract for SAT Automation s.r.o.)
- Replacement of float level switches EMO 1,2
 - elaboration of an implementation project for replacement of float sensors on selected technological parts, designed modern level sensors operating on reliable principles of level measurement
- Implementation of relocation of SO 400/RU VNAO Mochovce Repository (subcontract for JOMA Slovakia spol s.r.o.)
- Repair of lighting installation in area no. A201/1 and A201/2 in the hermetic zone
- Modification of the impulse pipeline to EMO 1.2 within the seismic strengthening of the Volume Compensator (subcontract for Škoda JS)
- Implementation of an investment project for the connection of the valve to the SAIA system and Červený Hrádok drinking water analyzers

- Implementation of electrical installation work on the construction project of the Archive of project documentation for the completion of MO34 (subcontract for Chemcomex a.s.)
- PAMS - temperature measurement in an open reactor, part of the EMO 1,2 simulator (subcontract for VUJE a.s.)

Completion of Units 3 and 4 at Mochovce NPP

- Design and engineering activities
 - for Nuclear Island
 - for Conventional Island
 - project documentation, verification of documentation at the site
- NPP own consumption equipment – 6 kV busducts, 6/0.4 kV transformers, 6 kV own consumption switchboards, 0.4 kV switchboards, 0.4 kV motor control centres, Emergency power supply system of category 1 (rectifiers, converters, inverters, batteries and UPS), Control and Diagnostic System of Power Dispatching of central electrical control room, protections of generator and power transmission control system and protections of 110 kV back-up power substation – production of 0.4 kV switchboards, equipment supply, engineering, installation and commissioning
- Main reactor building - installation of electrical wiring for building part

- Supply and installation of cables for reactor protection system (RRCS) - as subcontractor of Škoda JS a.s.
- Supply and installation of selected parts of I&C and electric systems for Nuclear Island – main cable routes, sensors of technological parameters, sample system for sensors of technological parameters, hermetical pipe penetrations, hermetical cable penetrations, cabling, chemical analyzers – engineering, supply, installation and commissioning
- Supply and installation of switchboards powering the EXCORE system
- I&C, safety systems and operational management systems – installation and assistance during commissioning (as subcontractor of AREVA NP – control system supplier)
- Delivery and installation of secondary cable routes for the PERIS system (subcontract for VUEZ)
- Installation of secondary cable routes for INCORE and BORON systems (subcontract for VUJE)
- Installation of switchboards and nuclear sensors for Rolls-Royce Civil Nuclear SAS
- Technical activities within cabling installation – work performed by inspection engineers
- Dismantling of external and internal temporary HV and LV electrical equipment and electrical wiring during finishing works on Mochovce NPP, units 3 and 4

- Completion of electrical components within the structure “High pressure compressor station”
 - Verification and required modifications of documentations concerning 8BJE85, 8BNK86, 8BNL86, and 8BNM86 switchboards. Incorporation of all modifications of switchboards executed in order to comply with valid technical standards.
 - Correction and revision of calculations regarding the power cable
 - Correction of switchboard signalling
 - Demarcation of secondary cable routes
 - New marking of existing cable routes and relocation of cables
 - Engineering activities - Electrical wiring diagrams
 - Replacement of ABB circuit breakers by Schneider Electric circuit breakers, inspections, individual tests
 - Installation of separators, rerouting and connecting of cables, installation of fire protection
 - Replacement of Contrade surge protectors with Schneider Electric surge protectors
 - Complete grounding of high pressure compressor station
- Installation work on the MO34 simulator (subcontract for GSE Power System Inc.)
- Installation of secondary cable routes on MO34 (subcontract for I&C Energo a.s.)
- Assistance in electrical installation work, laying of cabling, installation of cable routes (subcontract for Altron SK a.s.)



Trenčín Hydroelectric Power Plant

- General overhaul of the automated systems and accessories of the TG1 turbine, Kráľová Hydroelectric Power Plant - electro part
- Compensation of self-consumption power factor - Ružín HPP - PSHPP (a pumped storage hydro power plant), Veľké Kozmálovce SHPS (a small hydroelectric power station), Mikšová HPP, Horná Streda HPP, Kostolná HPP, Hričov HPP, Nové Mesto nad Váhom HPP
- Consolidation of MaAZD at the plants of Slovenské elektrárne, a.s.
- Delivery of switchboards at Kráľová TG2 HPP (subcontract for Montáže Čakovice Bratislava a.s.)

Jadrová a vyradovacia spoločnosť a.s. Bratislava

- Project of the V1/Bohunice NPP International Decommissioning Support Fund - **D4.1 Modification of the power plant and installation of new equipment**
 - full-scale implementation and supplies for electro parts and the ICS in compliance with PIP 1-6 (project implementation plans)
 - heavy-current distribution system - power supply and operations
 - technological process management system
 - light-current distribution system and structured cabling (a subcontract for METROSTAV a.s.)
- Project of the V1/Bohunice International Decommissioning Support Fund - **C7.A4 RAW (radioactive waste) remelting plant** – electrical installation works, supply of materials and cabling, installation (a subcontract for VUJE a.s.)
- Project of the V1/Bohunice International decommissioning Support Fund - **D4.2 Disassembly of large components of the primary circuit** - supply of site switchboards with measuring devices for invoicing purposes, supply of switchboards, installation of the ELEKTRO part, including relevant documentation (a subcontract for VUJE a.s.)
- Electrical supply of the railway crossing - construction of an electrical connection to the railway crossing between the villages of Pečeňady and Veľké Kostolany, elaboration of project documentation, implementation of the work
- **D4.4C Dismantling of systems in the controlled zone of NPP V1** - elaboration of an implementation project for the I&C part, power distribution, lighting, EFS and implementation work (subcontract for Metrostav a.s.)

Martinská teplárenská a.s.

Hot water boiler room

- Supply and assembly of LV cabling
- Supply and installation of a hot water boiler
- Supply and installation of technology for the output of electrical power
- Supply and assembly of LV switchboards
- Supply and assembly of I&C systems
- System programming

Planta Centro Thermal Power Plant, Venezuela

Reconstruction of 400 MW Boiler No. 5 – EPC Contract

- 420 kV power transmission line (surge arresters)
- 30 MVA transformers 5BT01 and 5BT02
- Generator outlet and zero
- Generator exciter system
- Electrical protections and measurements, MicroSCADA
- HV block substation
- LV block substation
- Subordinate + 6.1m substation
- Subordinate water treatment distributor
- Subordinate pumping station distributor
- Grounding and lightning protection for technological structures
- Lighting and socket wiring for technological machinery
- Direct current sources and wiring
- Diesel generator

Felton Thermal Power Plant, Cuba

- Complete supply of technology

Doel Nuclear Power Plant (Belgium)

Installation of ICS electrical wiring and electrical equipment (a subcontract for FRAMATOME GmbH)

ITER project (France)

Electrical installation work, installation of electrical equipment, including water-cooled encapsulated conductors, fast discharging units and associated equipment, busbars and devices, laying of cabling and instrumentation (member of the international consortium with PPA CONTROL, a.s. and FINCANTIER S.p.A.)

figure on the left: Kráľová Hydroelectric Power Plant

figure on the right: ITER - fusion reactor project

figure on left: Martinská teplárenská

figure on the right: Felton Thermal Power Plant



SERVICING, REPAIRING AND INSPECTION OF EQUIPMENT

Slovenské elektrárne a.s.

- Maintenance of I&C and electric systems – Jaslovské Bohunice V-2 NPP
- Maintenance of I&C and electric systems – Mochovce NPP Block 1 and 2
- Overhaul of visualisation PCs and central server at the Diesel Generator Station
- Repair of machinery at heat exchange stations in Hlohovec, Leopoldov, Jaslovske Bohunice
- Service of I&C and electric systems and machinery at central heat exchange stations
- Preventive maintenance of fire doors open position signalling at V-2 NPP
- Modification, upgrading and engineering support of software and corrective maintenance of hardware in the technology computer system
- Corrective maintenance of HW components and modification of SW for equipment PAMS at V-2 NPP
- Servicing the elements of electronic interlock system - Nováky Power Plant

- Service of non-block control systems NPP Mochovce Block 1 and 2
- Repair of CMS equipment for the information system of the Jaslovské Bohunice generator
- Service, repair and maintenance of equipment of the system of controlled inputs at NPP Mochovce Block 3 and 4
- Diagnostics and service of GESTRA electric condensate drains for SE-EMO
- Diagnostics and service of GESTRA electric condensate drains for SE-EBO

Jadrová a vyradovacia spoločnosť a. s.

- Complex performance of technical inspections and testing of electric systems
- Repairs and maintenance of electric systems

figure on the left: NPP Jaslovské Bohunice

figure on the right: factory SK Battery Hungary

INDUSTRY – Abroad

Samsung Engineering Hungary, Ltd.

Production hall SDIHU K-PROJECT, Göd (Hungary)

- Supply and installation of equipment and materials, full testing, inspections, and examinations and commissioning of the supplied equipment
- Grounding and a lightning rod
 - Transformers
 - LV and HV switchboards
 - UPS
 - HV and LV distribution
 - Main and emergency lighting systems
 - 4000 A busbar system

JWH Kft.

Chemical factory for the battery industry, Komárom (Hungary)

- (subcontract for LakóGép Kft.)
- Electrical wiring
 - Electrical switchboards
 - Low current distribution (CCTV, structured cabling, Wifi, CMS)

figure on the left: Samsung production hall in Göd (Hungary)

SK Battery Hungary Kft.

Car battery factory, Komárom (Hungary)

- (subcontract for ELIAS Eng Kft., Hansung Sysco Kft., LJ System, etc.)
- Electrical installations, cable routes, assembly of the bus system (Bus Duct 6000A)
 - Electrical and low current switchboards
 - Low current distribution for CMS and fire alarm system

Doosan Energy Solution Kft.

Car battery component factory, Környe (Hungary)

- (Subcontracting to GODOENG, LJ System, etc.)
- Electrical installations, cable routes
 - Electrical and low current switchboards
 - Low current distribution (CCTV, structured cabling, Wifi, controlled access system, CMS)

Hódút Kft. (Hungary)

Komárno-Komárom bridge

- Electrical installations, cable routes, 22kV transformer station
- Electrical and low current switchboards
- Public, signalling and design lighting
- Electrical security systems

figure on the right: Komárno-Komárom bridge



INDUSTRY – Slovakia

Volkswagen Slovakia, a.s. – Bratislava

VW 0.4kV lines for H3a hall and diesel generator

- Supply and installation of LV switchboards
- Delivery and installation of diesel aggregate
- Installation of lighting switchboards
- Supply and installation of indoor lighting
- Supply and installation of heavy current lines (raceways, LV cables including termination)
- Connection of technological equipment
- Supply and installation of lightning rod

VW Finish centre – Extension of H3 hall

- Supply and installation of main switchboards RM1, RM2
- Supply and installation of lighting switchboards RS1
- Supply and installation of illumination of H3 hall with a connection to RS Luxmate
- Supply and installation of heavy current lines (cable routes, LV cables including termination)
- Supply and installation of earthing system and lightning rod

VW Conveyors (Durr Systems Slovakia)

- Installation of conveyor technology switchboards
- Conveyor technology connection
- Installation of conveyor electrotechnology
- Design and installation of conveyor lighting, including its control

subcontract for Power Service Int. s.r.o.

- Execution of measurements by the partial discharge method
- Execution of voltage and sheath test of HV cables

Jaguar Land Rover SK

Supply of RS Siemens components - supply of HW and SW components for Simatic (Simatic PC, industrial barcode readers, software for Simatic) for the operation of the Paint Shop based on customer requirements

Additional electrical installations for the Jaguar Land Rover Nitra plant

(subcontract for TAKENAKA EUROPE GmbH)

- design, delivery, installation, activation and commissioning of power supply of Wifi routers for the storage area of finished vehicles
- design, delivery, installation, activation and commissioning of facade lighting of walkways for paint shop operation, integration into BMS (building management system)
- design, production of switchboards, delivery, installation, activation and commissioning of electrical installation of two newly built internal inserts in the paint shop operation, integration into BMS

Supply and installation for the technological section of the paint shop

- Supply and installation of a lighting system for the technological section
- Supply and installation of an emergency lighting system, including connection to the emergency lighting monitoring system
- Programming and control of the lighting system in the technological section

Infrastructure - car park lighting systems

- Supply and installation of outdoor car park lighting systems

SEYON E-HWA AUTOMOTIVE SLOVAKIA

Handling activities at the transformer station - production and logistics plant in Čadca

HV substation - Switchboard 22 kV 4 bays, type SM6, 22000 V, 50 Hz, 630A, 2 pcs dry transformer T1.1 and T1.2 Trihal 22kV/0.4 kV, 2 pcs Switchboard 0.4 kV - RH1.1 and RH1.2 sheet steel box IP30/IP00, 400/230 V, 50 Hz, 3200A.

SO 014 HV connection 22kV - cable length 1,480m, grounded.

Performance of activities based on a service contract (management of the HV substation and HV connection):

- responsibility for safe operation, execution of regular inspections and overhauls for the purpose of safe operation of VTZ (selected technical equipment), ensuring fire protection measures, inspections of electrical equipment and ensuring the performance of professional technical and safety supervision.
- supervision of compliance with applicable norms, standards and legislative regulations on safety and health at work and on amendments to certain laws as well as other related regulations.
- manipulation on selected technical equipment
- ensuring safety during handling
- securing the workplace during handling
- Training of operation staff
- responsibility for keeping a log of the transformation station
- responsibility for issuing the "B" order
- responsibility for cleanliness of the substations

Additional installations of electrical distributions and socket cabinets - production and logistics plant in Čadca - additional supplies and electrical installations, socket switchboards, modifications of technology connections, customization of electrical installations



Duslo, a.s., Šaľa

- Reconstruction of a lighting system - project (a subcontract for EXTEC s.r.o.)
- DCS Upgrade (a subcontract for YOKOGAWA)
- Service repair of electrical equipment and I&C devices
- Modernization of HV substation 6R1 - Processing of complete documentation (construction part, HV, LV, lightning conductor) for reconstruction of substation 6R1 in building 42-20, the site of DUSLO - SBÚ A, operation ČP3
- Optical connection - supply of materials and services associated with the implementation of an optical line between the buildings of DUSLO a.s. (subcontract for Menert spol. s r.o.)
- Storage of raw materials - processing of implementation project documentation, electrical part, for the implementation of technological modifications in the operation of DUSLO, DPo (subcontract for VUCHT a.s.)
- SW modifications and tests - deliveries of services connected with control and modifications of control system SW at operations after shutdown reconstructions (subcontract for Menert spol. s r.o.)

Eustream, a.s.

- Reconstruction of SKAO Velké Zálužie - supply and installation of SKAO kiosk with equipment, installation of cathodic protection station SZKS 40, supply and installation of switchboards, installation of cable distribution, tests, inspections

Slovnaft,a.s.

Project: Construction of the ethylene storage tank, block 71

- Supply, assembly, and installation of power distributors within the site
- Supply and installation of grounding and lightning conductor for temporary site buildings
- Supply and installation of a site lighting system (a subcontract for OT Industries General Contracting Co. Budapest)

Sewerage pumping station

- Power distribution and heating in the building PS 03
- TPCS and M&C in building PS 04
- EPS in building PS05
- construction electrical technology in building SO2835 S1.e (subcontract for SAM- SHIPBUILDING AND MACHINERY a.s.)
- Elaboration of project tender documentation for Klačany and Kapušany terminals (reconstruction of terminals)
- Addition of data switchboards to control rooms (subcontract for Honeywell s.r.o.)
- Production of switchboards for Hričov, Beňadik, Stožok and Strehová terminals (subcontract for INTECH CONTROL s.r.o.)

POZAGAS a.s

- Implementation of HAZOP measures at ZS6 - part of EFS - disassembly of ionization fire detector, delivery and installation of EFS equipment from Siemens, cables and cable routes, Rittal cabinets, installation of sensors, elaboration of implementation project, project of actual execution, final tests
- Implementation of HAZOP measures at MS Láb IV - Completion of EFS system, delivery and installation of EFS equipment from Siemens, installation of sensors, cables and cable routes, Rittal cabinets, elaboration of implementation project, project of actual execution, final tests

Nafta a. s.

- Preparation of project documentation for the project "Reconstruction of I&C lines within the central station in Plavecký Štvrtok - project documentation"
- Relocation of the control room of the central station of the underground natural gas storage tank in Lab - electrical part
- Performance of electrical inspections - Performance of inspections on reserved electrical technical equipment in Nafta a.s. with a valid certificate for group C5, performance of work of an inspection technician with a valid certificate for group C5, inspection of LV and I&C, earthing and lightning conductors, preparation of an inspection report

Zemianske Kostolány – Reconstruction of Fuel Underground Storage

- Supply and installation of heavy current and weak current lines in PS01 – Indication of fuel leakage in T53-60
- Supply and installation of I&C for HVAC
- Temporary tunnel lighting under repositories throughout construction

Derby&Derbyshire waste treatment centre

Delivery and installation of wiring

- Production, delivery and installation of switchboards, interconnecting boxes, switch boxes
- Delivery and installation of 110 V DC and 400 V AC UPS
- Delivery and installation of armoured cables, cable support systems for low voltage distribution, instrumentation and optical networks
- Testing of cable systems, instrumentation and optical networks
- Engineering support of the project and installation
- Actual execution documentation preparation

Konti a.s.

Production hall of SEW Bernolakovo

- supply and installation of wiring, switchboards, lighting systems, lightning conductor



U. S. Steel Košice

Reconstruction of the TD4 turbine

- Delivery and installation of internal electrical wiring, cable support systems and equipment connection
- Delivery and installation of a rotor starter, temperature and pressure sensors, electro-pneumatic servo drivers
- Delivery and installation of LV switchboards and a control system with Symatic S7 visualisation
- Visualisation programming
- Testing and commissioning

Repair of electrical installations, I&C and auxiliary drives for TD5 turbocharger

- Supply and installation of indoor electrical installations, cable support systems
- Supply and installation of rotor starter, temperature and pressure sensors, electro pneumatic actuators in explosive atmospheres
- Supply and installation of LV switchboards and Symatic S7 Control System & Visualization

Reconstruction of 5ST TANDEM transducers

- Installation of indoor electrical installations
- Dismantling of existing switchgears and installation of new transducers
- Connecting and activating the equipment

Reconstruction and modernization of boiler house, Stage 1 – K7 boiler

- Supply and installation of indoor electrical installations and cable support systems

- Supply and installation of lighting fixtures and electrical appliances
- Supply and installation of LV switchboards
- Supply and installation of central battery system

Low-emission coke quenching VKB1 – national limitelectrical part

- Realization of electrical installation works within the framework of the PD
- Supply and installation of electrical connection for technological switchboards, cable routes and connection of switchgears of technological equipment
- Testing and commissioning

PZ2 Galvanizing Line No.2 Material Tracking

- Supply and installation of indoor electrical installations and cable support systems
- Installation of cabling to connect I&C elements
- Installation of switchboards and control cabinets
- Testing and commissioning

Eurotalc, a.s.

Talc processing plant Gemerska Poloma

- Supply and assembly of complete power and weak-current wiring in six production halls and one administrative building
- Implementation of HV connection
- HV relaying
- Supply and installation of heavy current, weak current lines and fibre optic network throughout the facilities

Fortischem a.s.

General overhaul of carbide furnace No. 1

- Preparation of the project implementation plans, including an expert opinion on the documentation concerning specified technical equipment (STE) in compliance with the requirements of Decree no. 508/2009 of the Ministry of Labour, Social Affairs, and Family of the SR; provision of the as-built project documentation after completion.
- General overhauls of LV electrical equipment - modernization of electrical equipment, modernization of LV switchboards.
- Dismantling, inspection, repair, installation of secondary strips.
- Reconstruction of electric heating cables – replacement of heating cables by new ones, including heating controllers (thermostats), connection boxes, termination kits, and insulation.
- Modernization of motor power supply, using frequency converters.
- Installation of the HVAC equipment in HV and LV substations and transformer stations - disassembly of installed cables, supply and installation of cable lines, installation of cables.
- HV and LV cabling - construction of cable distribution systems (mains and other cable interconnections).
- The zero point of the carbide furnace bottom - replacement of the zero point equipment of the carbide furnace bottom.
- Electrical connection (power supply, signalling, control) of heating units with fans.

- Coating of trolleys, reconstruction of LV switchboards - replacement of circuit breakers and switching and control elements in existing switchboards and supply of new control boxes - buttons.
- Modernization of artificial and emergency lighting systems of the carbide furnaces KP1 and KP2, including the cooling hall.

Mondi SCP a.s., Ružomberok

ECO plus PM19 investment project

- supply and installation of cable routes and cabling, including connection, participation in activation, addition of 43 lightning conductor leads
- production and supply of 21 pneumatic switchboards
- 11kV distribution - supply and installation of cable routes and cabling
- Debottlenecking pumps (intensification) - supply and installation of cable routes and cabling, including connection, participation in activation
- electrical installation work - assistance during outages
- Causticization - main electrical installation work, supply and installation of cable routes and cabling, including connection, participation in activation
- WY and EVAP (wood cutting plant, evaporator) - lighting modification, lightning conductor and earthing, cabling disassembly, construction and electrical installation work, service panels and lighting



Minebea Slovakia s.r.o.

Production plant for mechatronic drives UB

- Supply and installation of two transformer stations
- Supply and installation of HV cabling
- Supply and installation of outdoor LV cabling
- Supply and installation of outdoor light-current cabling
- Supply and installation of a public lighting system
- Supply and installation of light and socket wiring
- Supply and installation of weak-current wiring
- Supply and installation of power lines for technologies
- Supply and installation of an electric fire alarm system
- Supply and installation of a voice fire alarm system
- Supply and installation of a CCTV system

CRH (Slovensko) a.s.

- Servicing for electro sections
- Replacement of MV switches within the R6 substation - replacement of the 6.3kV technology within the R6 substation and non-compliant cabling within the Rohožník plant (supply, installation, official verification, testing, and commissioning)
- Lighting 492 BW1 - clinker conveyor - delivery and installation of switchboards, lights, CBS, cables and cable routes, grounding
- Cement mill PC - Transport F to cement silos - disassembly and assembly of switchboards, addition of switchboard equipment, installation of unblocking, connecting and PSUV cabinets, supply and installation of sensors, cables and cable routes

- Replacement of control system of L01 and L02 lines - disassembly and assembly of switchboard elements, delivery and assembly of switchboards, PSUV cabinets, repeaters, boxes, inductive sensors, cables and cable routes
- Dosing of finely ground sand - supply and installation of artificial lighting and distribution, lightning protection, addition of elements to the switchboard, supply and installation of unblocking and PSUV cabinets, cables and cable routes
- Adjustment of ash dosing into RP PC2 - disassembly and assembly of switchboard elements, delivery and assembly of unblocking, PSUV and junction boxes, new cables
- Relocation of the MCC switchboard in the old plastic hall - assembly of switchboard elements, relocation of the cable route and lightning conductor

ABB s. r. o. Brno

- Electrical installations - installation of switchboards

Zvolenská teplárenská, a. s.

Remote control

- Hotline, service and emergency service

Continental Matador Rubber s.r.o., Púchov

- Supply and installation of electrical equipment (HV switchboards, transformer station, HV transformer)
- Increase of T28 transformer station power output

INGSTEEL spol. s r.o.

- Reconstruction of the Hills Hotel in Stará Lesná - supply and installation of electrical installations (subcontract for PPA CONTROLL a.s.)

Fells Rotaform

FELLS Ilava Hall - Technological equipment power supply

- Delivery and installation of the transformer and its connection to HV
- Delivery and installation of the LV RH03 switchboard
- Delivery and installation of the RH03 compensation switchboard
- Delivery and installation of the SIEMENS PS2500/PS1600 busbar system
- Power supply of production technology, including carrier routes
- Services: project documentation, individual, complex testing, commissioning, personnel training, participation in guarantee testing

Ikea Industry Malacky

Analysis of data collection from AHUs

- Analysis of possible data collection from AHUs
- Design of technical solution for data collection from AHUs
- Programming and data acquisition of AHUs
- Supply of SW Wonderware
- Supply of application software for SW Wonderware

ZF Slovakia a.s.

ZF Levice – Geňa – Reconstruction of main lighting ZF Trnava – General overhaul of lighting in PKW production hall in building No. 24

- Dismantling of original and supply and installation of new lighting fixtures, heavy current lines and communication wiring to DALI control system (supplied by Philips)

Imuna Pharm a.s., Šarišské Michaľany

Infusion solution storage area

- Supply and installation of indoor heavy current and weak current electrical installations
- Supply and installation of cable support systems
- Supply and installation of HV switchgear and HV transformer
- Establishing HV connection

MTA Slovakia s.r.o., Bánovce

Supply and installation of heavy current electrical wiring in a production and storage plant

- Supply and installation of heavy current electrical wiring in newly built hall
- Supply and installation of a busbar system
- Supply and installation of external area lighting and heating of roads
- Supply and installation of HV connection and HV distribution cabling
- Supply and installation of transformer station



Adler Pelzer Automotive Slovakia, s.r.o.

BRA1 hall - HP PELZER – Power supply of technological switchboards

- Development of PD
- Supply and installation of LV switchboards (with compensation)
- Supply and installation of cable support systems
- Supply and installation of power cables, including termination

SCA Hygiene Products Slovakia, s. r. o.

PS02 HV connection and VH6 substation switchboards

- Transformer delivery, installation and HV connection
- Delivery and installation of HV disconnectors including connection to HV supply in VH4
- Delivery and installation of switchboards in the VH6 substation, fields RH11/x and RH12/x, and their connection to respective transformers
- Delivery and installation of RC11 and RC12 compensation switchboards on the premises of SCA Hygiene Products Slovakia, s. r. o.
- Services: project documentation, individual, complex testing, commissioning, personnel training, participation in guarantee testing

BENSTAV spol. s r.o.

Supply and installation of electrical wiring and lighting systems within reconstruction of the building of the Ministry of Labour, Social Affairs, and Family of the SR

Bekaert Slovakia s. r. o.

Bekaert Sladkovičovo production hall

- HVAC project package – execution of the electrical part and I&C
- Transformer service and preventive inspection of HV equipment R1 (subcontract for Schneider Electric s.r.o.)

Wastewater treatment plant (WWTP)

- WWTP Čierny Balog
- Dolná Streda
- Tornaľa agglomeration
- Brezová
- Slovenská Ľupča

TECHNOLOGICAL EQUIPMENT FOR ROADWAY TUNNELS, MOTORWAYS AND RAILWAYS

NDS , a.s. (National Motorway Company)

D3 motorway between Žilina (Strážov) and Žilina (Brodno) - the structure of the year 2017

Within the construction of the D3 motorway between Žilina (Strážov) and Žilina (Brodno), the company PPA CONTROLL, a. s., made complete delivery of the following facilities of the technological part of the Považský Chlmec tunnel:

- Complete fire alarm system (FAS)
- Delivery, installation of switchboards of the central control system, including the SIMATIC S7 control system
- Programming of the traffic control system and tunnel technology control system
- Delivery and installation of illuminated and LED variable traffic signs
- Dispatching telephone
- Visualisation in the Integrated Operator Workplace of the Považská Bystrica Motorway Administration and Maintenance Centre

Within the construction of the D3 motorway between Žilina (Strážov) and Žilina (Brodno) we also made complete delivery of construction and technological parts of the Motorway Information System (MIS):

- Communication and connection infrastructure
- Delivery, installation, integration and management of complete variable traffic signs

- Traffic signals
- Technology nodes
- Cut-off signal-circuit controllers
- Delivery, installation, integration and visualisation of meteorological stations
- Surveillance cameras
- Electrical security system
- SIMATIC S7 control system
- Visualisation in the Integrated Operator Workplace of the Považská Bystrica Motorway Administration and Maintenance Centre
- Supply, installation and configuration of a vehicle counter with axle weighing at the Brodno intersection

D1 motorway Budimír - Bidovce, technological part of ISD

- Construction part - supply of power switchboards
- Emergency call stands
- Electronic security signalling
- CCTV surveillance
- Technology nodes
- Road traffic signalling
- Weather stations
- Traffic counters
- Control centre equipment
- Radio transmission
- Salt storage - electrical part

figure: wastewater treatment plant

figure on the left: D3 Motorway Information Systems

figure on the right: motorway CCTV surveillance



Delivery, assembly and maintenance of our installations of road tunnels

Horelica Tunnel

- Variable traffic sign service
- Servicing CMS including visualization
- Servicing HV parts
- Electrical inspections

Branisko Tunnel

- Maintenance of fire alarm system, fixed firefighting system, high voltage supply
- Maintenance of D1 motorway Studenec – Beharovce
- Maintenance of D1 motorway Jablonov – Studenec
- Breakdown repairs

Borik Tunnel

- Standby power systems
- Emergency call equipment – SOS boxes
- Surveillance closed circuit TV in the tunnel
- Radio connection
- Communication circuits – transmission system
- Telephone connection
- Tunnel radio
- Fire doors
- Central control system
- Measuring of physical variables
- Traffic signs
- Control centre equipment
- Fire alarm system
- Tunnel lighting
- Tunnel ventilation

- Fire water supply – electric systems
- Outdoor illumination
- Breakdown repairs

Maintenance of Motorway Information Systems (MIS)

- Motorway D1: Dubná Skala – Turany
- Motorway D1: Piešťany – Sverepec
- Motorway D1: Sverepec – Vrtižer
- Motorway D1: Vrtižer – Hričovské Podhradie
- Motorway D1: Hričovské Podhradie – Žilina (Strážov)
- Motorway D1: Važec – Mengusovce
- Motorway D1: Mengusovce – Jánovce
- Motorway D1: Studenec – Behárovce

Scope:

- Construction (power supply distributors, cabling, grounding)
- Emergency call stands
- Electronic security alarms
- Surveillance cameras
- Technological communication switchboards
- Variable message signs – laminated
- Variable message signs – LED
- Road signal lights
- Radio transmission
- Cut off signal-circuit controllers
- Operator station

Automatic traffic counters

- Delivery and installation of automatic traffic counters
- Delivery of software
- Testing and commissioning

Addition, replacement and technical service of variable traffic signs and traffic facilities for traffic control through the Horelica tunnel

PPA INŽINIERING, s.r.o. carried out, as part of the renewal and modernization of traffic control equipment in the Horelica tunnel and on adjacent road sections, a comprehensive replacement of variable traffic signs, which included: dismantling, supply and installation of modernized and new equipment, programming, activation and testing.

The implementation of the project consisted of:

- Analysis of the tender project documentation for the implementation of the construction and its updating to the current technical and legislative conditions.
- Presentation of technical solutions, securing the consent of state authorities.
- Active participation in the overall coordination of the implementation of works during the planned shutdown of the Horelica tunnel lasting 10 days.
- Dismantling of the original equipment for traffic control (VTS - 50 units, CSS light sources and indicators - 47 units, cabling).
- Supply and installation of new light VTS based on LED technology - 50 units.
- Supply and installation of new light CSS and indicators based on LED technology - 47 units.
- Supply and installation of new equipment (information text LED boards - 2 units, indicative speed meters - 2 units, CSS - 1 unit).
- Complete replacement of power and communication cables for supplied equipment.

- Modification and addition of equipment to existing switchboards - 15 units.
- Construction modifications and excavation work, installation of masts for new equipment, supply of load-bearing structures.
- Addition of CMS hardware configuration, modification of application software of control automats and visualization system.
- Activation of the traffic control system, testing and commissioning.
- Development of complete project documentation of the work (Documentation of the actual implementation of the construction, manual of use of the construction, operating instructions, accompanying documentation, quality report, initial revisions, operator training).
- Performance of warranty service within the scope of the work performed.

Dopravoprojekt, a.s.

- D4/R7 Bratislava ring road, project documentation: building permit documentation and construction execution documentation for the entire electrical part, including the MIS

Basler & Hofmann Slovakia s.r.o., Consulting Engineers

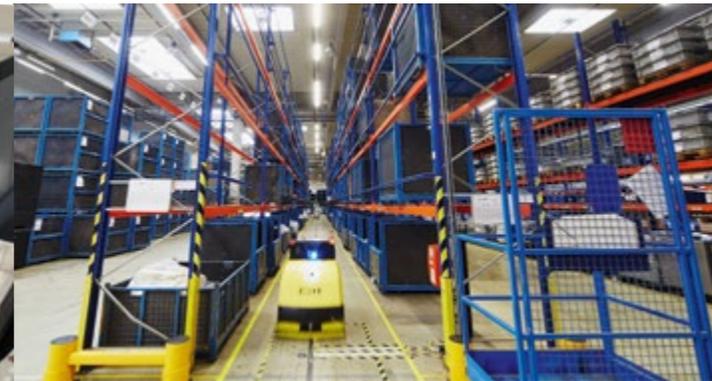
- R4 Prešov - northern bypass - Bikoš tunnel, technological equipment - project documentation for a tender at the detail level of project implementation documentation

figure on the left: Bôrik tunnel

figure on the right: Bôrik tunnel control centre

figure on the left: variable traffic signs at the Horelica tunnel

figure on the right: Horelica tunnel



OUTSOURCING OF ENERGY MANAGEMENT

Comprehensive Industrial Site Management

Administration of technological equipment of buildings, energy networks of industrial sites, energy process optimisation, energy supply, local energy distribution, engineering and supply activities:

- D1 Park Senec
- Prologis Park Senec
- DHL Headquarters Senec
- Manufacturing plant ZF Slovakia Trnava, Levice
- Automotive Industrial Park, Lozorno
- P3 Bratislava Airport
- Mahle Behr Senica

Management and administration

- Preparing and reviewing budgets
- Records of costs and management processes
- Coordination of suppliers

Management of utility networks

- Servicing, maintenance and repairs of:
 - HV and LV power lines
 - Gas pipelines
 - Heat pipelines
 - Water pipelines
 - Foul water drainage and storm sewers

Construction and development of infrastructure in D1 Park Senec

- Roads
- HV and LV power lines
- Gas pipeline
- Water pipeline
- Intelligent data collection from meters
- Foul drainage and storm sewers

Technical building management

- Servicing, maintenance and repairs of:
 - Heating systems
 - Air conditioning and cooling systems
 - Fire - technical and safeguarding systems
 - Compressed air distribution
 - HV, LV and I&C systems
 - Lifting devices
- Expert inspections and technical testing of classified technical equipment:
 - electrical
 - gas
 - pressure

Non-technical building management

- Waste management
- Road maintenance, green maintenance
- Cleaning
- Guard service

Delivery and Distribution of Energy

- P3 Logistics Park, Lozorno & Bratislava Airport
- D&K Küster Industrial Park, Devinska Nova Ves
- Košice Airport Industrial Park
- EUROVEA Shopping Centre, Bratislava
- Galeria Shopping Centre, Lučenec
- Automotive Industrial Park, Lozorno

Deliveries of electricity and gas

- Both electricity/gas supply
- Online electricity and gas consumption surveys
- Notifications of cut-off points and defined parameters

Operation of energy distribution networks

- Creation of local distribution networks
- Registration of offtake points, legislative certification
- Preparation and approval of own distribution pricelists
- Consumption measurements, billing for the consumption
- Energy management via mobile applications and Power IEM web portal
- Local energy sources

Operation of water and sewer systems

- acting as professional representative for the operation of public water mains
- acting as professional representative for the operation of public sewers
- servicing, maintenance and repairs

Energy Audits and Optimization Services

- Železničná spoločnosť Slovensko, a.s.
- Plastic Omnium Auto Exteriors, s.r.o.
- SLOVALCO, a.s.
- ProLogis Slovak Republic
- Faurecia Automotive Slovakia s.r.o.
- IAC Group (Slovakia) s.r.o.
- Calmit, spol. s r.o.

General identification of energy management

- Professional assessment of the condition of buildings, technologies and facilities
- Determining energy demand and potential savings

Developing economically recoverable austerity plans

- Measures requiring no capital investment
- Low-cost measures and long-term measures

Implementing austerity plans

- Coordination of processes, potential financial partnership

Operation of Energy Sources

- Photovoltaic power plant, Drahovce
- Photovoltaic power plant, Čechanky
- Photovoltaic power plant, Seľany

Technical operation of plants

- Trouble-free operation of plants, servicing, maintenance

Legislative resource management

- Compliance with plant legislative obligations, monitoring, billing inputs, reporting of mandatory data



OTHER

SLOVMAG, a.s. Lubeník

- Supply and HV installation of cable between existing HV substations on the surface and underground
- Terminations and connections in HV switchboards
- Performance of the necessary measurements and tests

Svet zdravia, a. s.

New Generation Hospital Michalovce

- Delivery and installation of high-current wiring, cable support systems and installation of terminators
- Delivery and installation of a low-voltage connection to the new hospital building
- Services: individual, complex testing, commissioning, personnel training, participation in guarantee testing

NSP Bardejov (a hospital with polyclinic)

Construction of the urgent medicine section

- Supply and installation of heavy current cabling
- Supply and installation of light and socket wiring
- Supply and installation of an electric fire alarm system
- Supply and installation of a voice fire alarm system
- Supply and installation of a CCTV system
- Supply and installation of a public lighting system

J & T Real Estate, a.s.

Zuckermandel - ČSOB bank

- Supply, installation, and as-built documentation
- LV cabling
- LV switchboards
- indoor and outdoor lighting systems
- grounding system and lightning rod
- 800 kVA diesel generator

Zuckermandel - administrative buildings

- Installation of main LV switchboards
- Installation of lighting switchboards
- Supply and installation of indoor lighting
- Supply and installation of heavy current lines (cable routes, LV cables including termination)
- Connection of technological equipment
- Supply and installation of lightning protection system

Westend Quadrant Bratislava

- Supply, installation and as-built design
- HV substation, transformers
- HV, LV cabling
- LV switchboards
- UPS
- Internal and external lighting
- Grounding and lightning protection
- Central battery system
- Operation of transformer station

City Arena Trnava - Construction of the Year 2015

Electro-installation works – supply and installation of heavycurrent part and installation of football stadium lighting.

- Production, supply and installation of power switchboards and subdistribution switchboards
- Supply and installation of cable support systems
- Supply and installation of lighting of all stadium areas
- Installation of lighting of the playing field
- Design, production, supply and installation of switchgears for lighting of the playing field
- Supply and installation of emergency lighting system including lighting loops of the central battery system
- Supply and installation of terminal and control elements (switches and sockets) in all stadium areas
- Supply and installation of lightning protection system
- Supply and installation of electrical heating of sanitary facilities

- Supply of switchboards for the project
- Renovation of the ICS of the Felton Power Plant (Cuba) - a subcontract for PPA INŽINIERING s.r.o.
- DELTECH a.s.
- EXTEC s.r.o.
- INTECH CONTROL s.r.o.
- TTS Martin, s.r.o.
- SAT Systémy automatizačnej techniky, spol. s r.o.
- ART-Ex s.r.o.
- King Dynamics s.r.o.
- Martinská teplárenská a.s.
- Škoda JS a.s.
- Košická Futbalová Aréna, a.s.
- Rhea elektro s.r.o.
- ROBO Piešťany a.s.

SUPPLY OF SWITCHBOARDS - VARIOUS CUSTOMERS

- Supply of distributors for the project "Renovation of the ICS within non-unit elementary systems of the Temelin NPP - a subcontract for PPA CONTROLL CZ a.s.

ENGINEERING ACTIVITIES IN THE FIELD OF I&C AND ELECTRICAL INSTALLATION

Providing design, programming, 3D modelling and consulting activities for various customers in the field of energy and industry (TOWER AUTOMOTIVE a.s., Slovak Telekom a.s., CHEMCOMEX, a.s. – organizačná zložka Slovensko, PENAM SLOVAKIA a.s., ART-Ex s.r.o., VUCHT a.s., IDO HUTNÝ PROJEKT a.s., SAT Systémy automatizačnej techniky, spol. s r.o., PANCO, spol. s r.o., Mondí SCP, a.s. - ČOV)

Balance Sheet, Profit and Loss Account

Consolidated Balance Sheet ending with the 31st December 2019 in thousands of EURO

	To 31.12.2019	To 31.12.2018
Non-current assets	14.927	12.524
Intangible assets	151	150
Tangible assets	9.156	9.568
Other movable property	4.867	2.051
Goodwill	0	0
Non-current financial assets	2	2
Other financial assets	102	112
Long-term receivables	10	186
Deferred tax assets	639	455
Short-term assets	88.920	78.239
Inventory	1.957	2.509
Receivables	44.168	47.828
Other receivables	1.527	3.243
Short-term accruals	788	2.241
Cash and bank accounts balances	40.480	22.418
Total assets	103.847	90.763
Equity attributed to shareholders	56.899	47.266
Share capital	1.052	1.052
Fund of exchange differences	39	33
Capital and Statutory funds	301	291
Funds of profit	8.035	8.038
Retained earnings	35.890	29.660
Profit for the period attributed to shareholders of the mother company	11.582	8.192
Equity attributed to non-controlling shares	2	2
Total equity	56.901	47.268
Long-term liabilities	9.956	9.958
Long-term trade and other payables	1.200	1.187
Deferred tax liabilities	61	65
Long-term provisions	8.695	8.706
Current liabilities	36.990	33.537
Short-term trade payables	24.269	26.828
Liabilities to the state	1.799	1.972
Other current liabilities	2.008	3.163
Short-term income and accrued expenses	40	28
Short-term provisions	1.365	1.539
Short-term borrowing	7.509	7
Total liabilities	46.946	43.495
Total equity and liabilities	103.847	90.763

Consolidated Profit and Loss Account ending with the 31st December 2019 in thousands of EURO

	Year 2019	Year 2018
Sales	170.485	119.532
Cost of goods sold	-10.344	-10.822
Shaft material and energy	-64.243	-41.621
External services	-48.058	-26.274
Occupational loan	-28.727	-27.764
Depreciation	-1.310	-1.258
Gross margin	17.803	11.793
Other operating income	364	257
Other operating expenses	-2.790	-1.242
Operating profit	15.377	10.808
Financial income	173	219
Financial expenses	-733	-539
Profit before tax	14.817	10.488
Income tax	-3.233	-2.294
Profit after tax	11.584	8.194
Shares in associated companies affiliated operations	0	0
Discontinued operations		
Profit from discontinued operations	0	0
Profit for the period	11.584	8.194
Assigned to:		
holders of the parent company	11.582	8.192
non-controlling shares	2	2

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Annual Report Availability

The printed annual report is available at the company's registered office and can be sent by post upon request.

The report can be downloaded in PDF format from www.ppa.sk

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