

HELB

Engineering for energy infrastructure



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## Mission

*We are an engineering team based on experience, excellence and partnership that provides solutions beyond expectations.*

*We are proud to make electricity available for next generations through our community and co-creation.*

## Vision

*We will become a digital engineering company by 2025 through continuous creation of top experts.*

*We will be the first choice in the integration of advanced power systems through the implementation of new technologies and knowledge on the local and global market.*

# Values

- Cooperation / Communion / Partnership
- Openness / Trust / Sincerity
- Responsibility
- Contribution / Productivity / Creativity
- Learning / Flexibility / Adaptability
- Love / Care about somebody and/or something

# Business segments

- ENGINEERING SERVICES
- PRODUCTION
- PLAN CONSTRUCTION
- OIL AND GAS
- CONTROL AND MAINTENANCE
- CDSO



# Engineering



Engineering Services



Production



Plant Construction



Oil and Gas



Control and Maintenance



CDSO

# Quality management systems

**ISO 9001 | ISO 14001 | ISO/IEC 27001 | ISO 45001  
| SCCp | ISO/IEC 29001**

- MORE THAN 250 PROFESSIONAL TRAININGS
- MORE THAN 120 CERTIFICATES



# Engineering services



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**Engineering Services**



Production



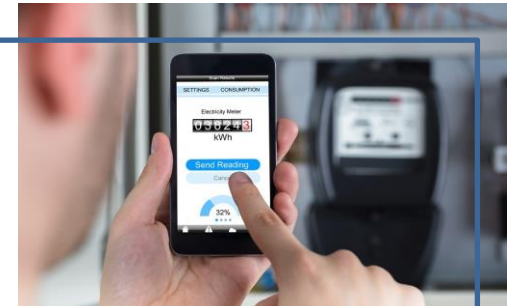
Plant Construction



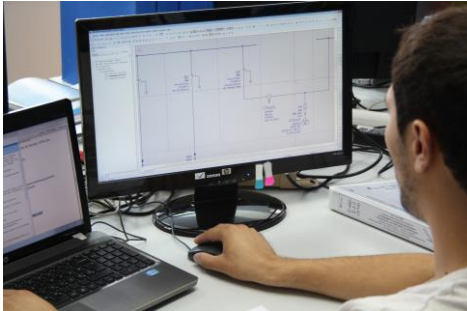
Oil and Gas



Control and Maintenance



CDSO



## DESIGNING

EPLAN Electric P8, AutoCAD, DiaLUX, Relux software tools and other specialized software



## AUTOMATION

Automation of the manufacturing process or an optimization for power consumption



## TESTING

From basic and functional testing to specialist and diagnostic testing



## RELAY PROTECTION

Extends the testing from the primary (power system) to the secondary (control system)



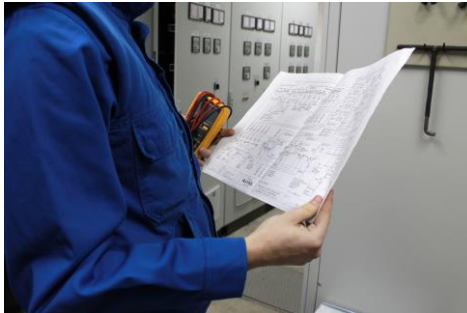
## PROJECT MANAGEMENT

Using our own developed business software system



## CONSULTING

various consulting services in the power sector and oil and gas sector



## **SUPERVISION**

Includes the examination of the conditions that the contractor must fulfill



## **HEALTH AND SAFETY AT WORK**

Health and Safety Management System – BS OHSAS 18001



## **ENERGY CONSULTING**

Through energy audits - energy and cost optimization

# Production



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Engineering Services



**Production**



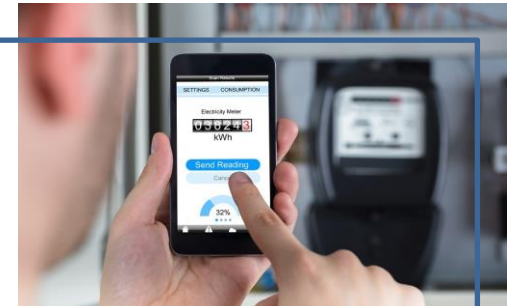
Plant Construction



Oil and Gas



Control and Maintenance



CDSO



## **CONTROL AND PROTECTION CABINETS**

Creation of advanced control solutions used in automation of industrial processes or in transformer station protection systems



## **LOW POWER ENERGY DISTRIBUTION**

Complete technical solution– design, manufacture, installation and commissioning



## **PORTABLE POWER AND CONTROL CABINETS**

Robust power and control cabinets for mobile power supply for industrial consumers



## **ENERGY DISTRIBUTION CABINETS**

Mobile datacenters, prefabricated plants, mobile drilling rigs for the petroleum industry and many others.



## **LOW POWER ENERGY DISTRIBUTION**

Experienced team of designers, engineers and technicians can handle the most diverse specialized products.



# Plant Construction



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Engineering Services



Production



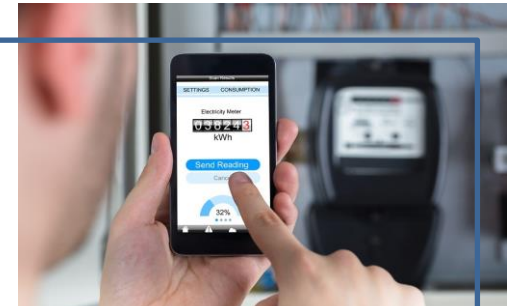
Plant Construction



Oil and Gas



Control and Maintenance



CDSO



## **DISTRIBUTION OF ELECTRICITY**

Market leader in the construction of turn-key primary distribution facilities



## **ELECTRICITY TRANSMISSION**

Specialized in the construction of the most complex transmission network facilities. Over 3,000 references worldwide



## **ELECTRICITY PRODUCTION**

Through biomass, hydro, wind, solar or geothermal power plants building



## **INDUSTRIAL PLANTS**

Solutions for industrial drives such as process automation, monitoring and control systems to industrial customers

# Oil and Gas



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Engineering Services



Production



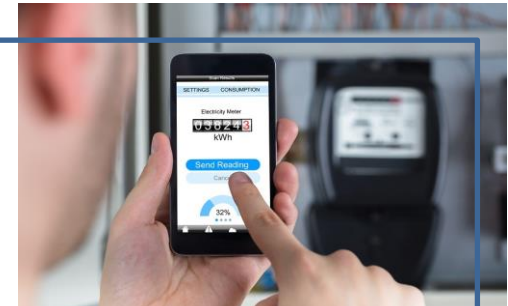
Plant Construction



Oil and Gas



Control and Maintenance



CDSO





## **PLANT POWER SUPPLY AND CONTROL SYSTEMS**

DC motor drive – SCR, AC motor drive – VFD and auxiliary distribution facility – MCC



## **SPECIAL CABLES FOR TOP DRIVES (SERVICE LOOPS)**

Compatible with worldwide for monitoring and control of Top Drives and power supply of Top Drives



## **AUTOMATION SYSTEMS**

The Z-Torque – the torsional vibration damping device, drilling parameter tracking system, automatic drilling system, etc.



## **RECONSTRUCTION AND UPGRADE OF ELECTRICAL SYSTEMS (DRILLING PLANTS)**

High quality service for reconstruction and upgrading of various electrical systems (BV, GL, DNV, LR, ABS, etc.)



# Control and Maintenance



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Engineering Services



Production



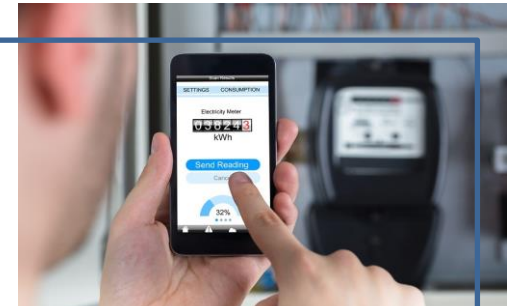
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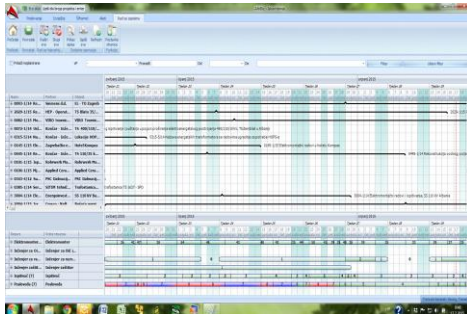
### **INTERVENTIONAL MAINTENANCE 24/7**

Urgent intervention, removal of the malfunction and re-start of the plant



### **PREVENTIVE MAINTENANCE 365**

Preventive maintenance throughout the life of the plant. Periodic examinations and diagnostic tests



## REMOTE MONITORING AND MANAGEMENT OF THE OBJECT

By implementing SCADA systems or cloud monitoring solutions, minimizing OPEX



## ADVANCED MANAGEMENT AND MAINTENANCE SOLUTIONS

By applying Augmented Reality, we allow efficient knowledge transfer of our specialists at the request of the user.

# CDSO – Closed Distribution System Operator



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Engineering Services



Production



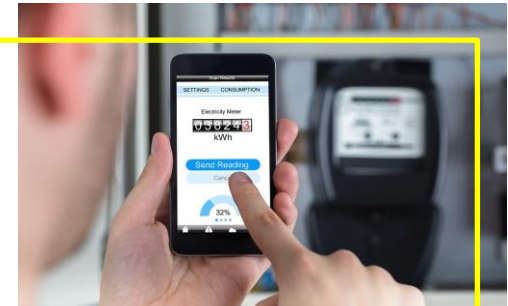
Plant Construction



Oil and Gas



Control and Maintenance



**CDSO**

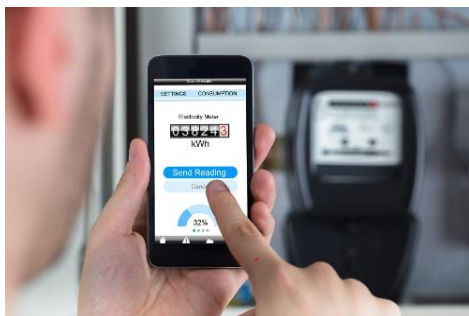
— CDSO ALLOWS ESTABLISHMENT OF TRANSPARENT RELATIONS IN ENERGY EXCHANGE





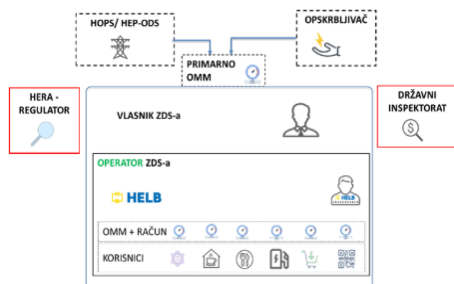
## CLOSED DISTRIBUTION SYSTEM(CDS)

Business system that distributes electricity within a geographically restricted location, where there is more than one user who is supplied with electricity through a common metering point



## WHAT CDS ALLOWS?

Establishment of transparent relations in energy exchange, rationalization, and management of electricity cost, as well as the green transition



## PARTICIPANTS AND RELATIONS WITHIN CDS

In addition to the Owner and User of the business, Operator (OCDS), Regulator (HERA), and Inspectorate (State Inspectorate) are introduced



## **CLOSED DISTRIBUTION SYSTEM OPERATOR'S (CDSO) ROLE**

Conducting procedures for obtaining the status of CSD, development, management, and maintenance of a safe, reliable, and efficient CDS



## **BENEFITS FOR CDS PARTICIPANTS**

Owner: income from the CDSO concession, security, and reliability of electricity supply, and focus on core business

User: transparent service, savings, legal connection to el. distribution network, security and reliability



## **THE PROCESS OF ESTABLISHING A CDS**

4 STEPS: Acquisition, Licensing, Administrative – technical preparation, Electricity management and supply



# Projects



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# Croatia: ZD2P and ZD3P wind farms

- CLIENT: KUNOVAC LTD.
- LOCATION: CROATIA, BENKOVAC
- SCOPE OF WORK: ELECTRICAL WORK, TESTING AND COMMISSIONING AT THE ZD2P AND ZD3P WIND FARMS
  - Laying the medium voltage cable of the wind power plants WF ZD2P and WF ZD3P, from the SS Bruška to the MV switchgear in the wind turbine, including cable terminations and surge arresters at the cable terminations.
- YEAR: 2022



# Croatia: Electrical cabinets for the Vis power plan

- CLIENT: KONČAR — ELECTRONICS AND INFORMATICS LTD FOR PRODUCTION AND SERVICES
- LOCATION: CROATIA, VIS
- SCOPE OF WORK: ELECTRICAL ASSEMBLY AND CONSTRUCTION



## WORKS ON INSTALLATION AND CALIBRATION OF BSPEE Vis

- A total of 12 cabinets were installed in the system at Vis with the possibility of storing electricity of 1.8 MWh
- YEAR: 2022



# Croatia: SS 35/0,4kV Machine room hydropower plant Varaždin

- CLIENT: HEP — ODS
- LOCATION: CROATIA, VARAŽDIN
- SCOPE OF WORK: CONSTRUCTION OF THE NEW SUBSTATION SS  
35/0.4 kV MACHINE ROOM HPP VARAŽDIN AND THE  
CONNECTING 35kV CABLE LINES
- YEAR: 2022



# Croatia: Reconstruction of SS 793 (Inside the factory circuit)

- CLIENT: ZVIJEZDA PLUS LTD.
- LOCATION: CROATIA, ZAGREB
- SCOPE OF WORK: SPECTRUM OF WORK IS VERY BROAD
  - From preparatory and dismantling works such as checking the rotating fields, dismantling the medium voltage cable connection of the power transformer, through assembly works such as delivery, unloading, bringing in, leveling, and mounting of the power transformer, the new LV plant, manufacturing and assembly of the MV cable connection of the energy transformer, up to testing, measurement, and commissioning.
- YEAR: 2022



# Croatia: Wind farm Senj

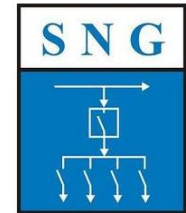
- CLIENT: **YOUTONE CONSTRUCTION LTD.**
- LOCATION: **SENJ, CROATIA**
- SCOPE OF WORK: **ELECTRICAL INSTALLATION WORKS, TESTING, AND COMMISSIONING**
  - **LARGEST WIND FARM IN CROATIA, 39 WIND TURBINES, TOTAL CAPACITY 156 MW, PRODUCE. 530 MIL. KWH A YEAR**
- YEAR: **2021.**





# Germany: GEKA substations

- CLIENT: SCHALTTECHNIK NORD GMBH.
- LOCATION: GERMANY
- SCOPE OF WORK: **CABINETS, ELECTRICAL INSTALLATION WORKS, TESTING, AND COMMISSIONING OF THREE SUBSTATIONS IN GERMANY**
  - GEKA – the leading manufacturer and supplier of innovative and precise solutions for cosmetics products
- YEAR: **2021**

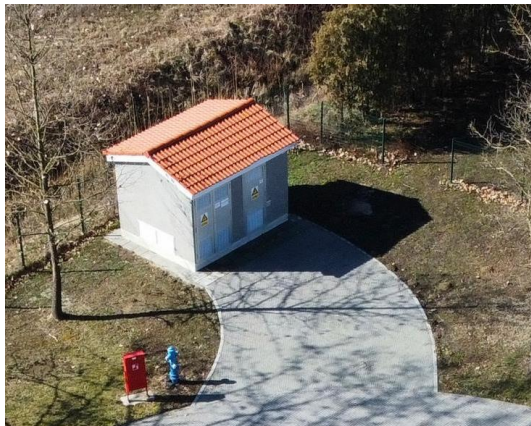


# Croatia: Relocation of the substation with a private buyer

- CLIENT: IREKS AROMA LTD.
- LOCATION: CROATIA
- SCOPE OF WORK: RELOCATION OF SS, MV AND LV CABLE

## CONNECTIONS

- CONSTRUCTION OF SS 20/0.4 kV, 1×1000 kVA, DISMANTLING OF EXISTING SS, AND FINAL TESTS, MEASUREMENTS, AND COMMISSIONING.
- YEAR: **2021.**





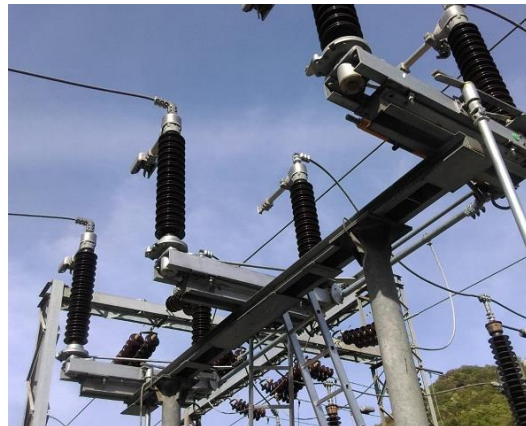
# Croatia: SS Brinje 220/35 kV

- CLIENT: **NORINCO INTERNATIONAL COOPERATION LTD.**
- LOCATION: **SENJ, CROATIA**
- SCOPE OF WORK: **RECONSTRUCTION OF SS BRINJE 220/35 Kv**
  - For the Chinese company Norinco, as part of the wind farm Senj grid connection, HELB designed, installed, and commissioned the 220 kV OHL Feeder “WF Senj” to which the entire wind farm is connected.
- YEAR: **2021.**



# Croatia: Electric power plants in the transmission area of Rijeka

- CLIENT: CROATIAN TRANSMISSION SYSTEM OPERATOR LTD.
- LOCATION: RIJEKA AREA, CROATIA
- SCOPE OF WORK: REPLACEMENT OF DISCONNECTORS TYPE CBE  
**110 kV ON POWER PLANTS IN RIJEKA TRANSMISSION AREA**
  - SS LIČKI OSIK, EVP MORAVICE, SS DELNICE, SS CRIKVENICA, SS KRASICA, SS MATULJI, SS BUTONIGA, SS PAZIN AND SS POREČ.
- YEAR: **2020**



# Croatia: INA Oil Refinery Rijeka

- CLIENT: **IVICOM CONSULTING LTD.**
- LOCATION: **RIJEKA, CROATIA**
- SCOPE OF WORK: **RECONSTRUCTION, CONSTRUCTION OF A SUBSTATION, TESTING, AND PARTICIPATION IN COMMISSIONING**
- YEAR: **2020**



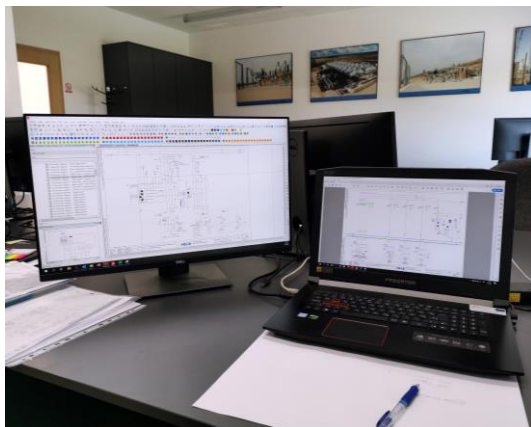
# Ghana & DR Congo: Cabinets

- CLIENT: **PRO INTEGRIS LTD.**
- LOCATION: **GHANA AND DR CONGO**
- SCOPE OF WORK: **PRODUCTION OF THE CONTROL AND PROTECTION CABINETS** FOR KASOA BPS SUBSTATION IN GHANA AND HYDROPOWER PLANT IN THE DEMOCRATIC REPUBLIC OF CONGO.
- YEAR: **2020**



# Germany: Design and production of cabinets

- CLIENT: PAUL WURTH S.A.
- LOCATION: SALZGITTER FLACHSTAHL GMBH, GERMANY
- SCOPE OF WORK: DESIGN OF A PROGRAMMABLE LOGIC CONTROLLER AND A DISTRIBUTION CABINET, PRODUCTION AND TESTING
- YEAR: 2020





# Croatia: Solar power plant Vis

- CLIENT: KONČAR — POWER ENGINEERING AND TRANSPORT INC
- LOCATION: VIS, CROATIA
- SCOPE OF WORK: ELECTRICAL INSTALLATION WORKS
  - Largest power plan in Croatia
- YEAR: 2020



**KONČAR**

Končar - Inženjering za  
energetiku i transport d.d.





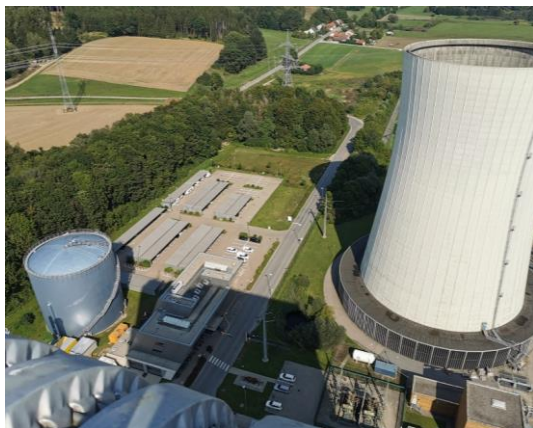
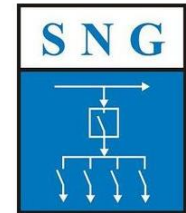
# Croatia: Wind farm Korlat

- CLIENT: ING — GRAD LTD.
- LOCATION: BENKOVAC, CROATIA
- SCOPE OF WORK: ELECTRICAL INSTALLATION WORKS, TESTING AND COMMISSIONING
  - One of the largest wind farms in Croatia
- YEAR: 2020



# Germany: Schalttechnik – Kraftwerk Zolling Thermal Power Plant

- CLIENT: SCHALTTECHNIK NORD GMBH.
- LOCATION: KRAFTWERK ZOLLING THERMAL POWER PLANT,  
GERMANY
- SCOPE OF WORK: FROM PRODUCTION AND ASSEMBLY OF MCC  
TO TESTING AND COMMISSIONING
- YEAR: **2019**



# Croatia: HRT – Croatian Radio and Television

- CLIENT: HRT
- LOCATION: PRISAVLJE ZAGREB, CROATIA
- SCOPE OF WORK: RECONSTRUCTION OF ELECTRICAL INSTALLATIONS OF THE REDUNDANT UPS POWER SUPPLY OF THE MASTER IN THE HOME (MAIN BUILDING)
- YEAR: 2019



# World: On energy transformers in Africa, America, Asia and Europe

- CLIENT: KONČAR POWER TRANSFORMERS, KPT
- LOCATION: AFRICA, AMERICA, ASIA, EUROPE
- SCOPE OF WORK: PRODUCTION OF CONTROL CABINETS FOR POWER TRANSFORMERS, INSTALLATION AND SUPERVISION OF INSTALLATION OF POWER TRANSFORMERS
- YEAR: SINCE 2006.

Končar  
Power Transformers  
Ltd.



# Region: Maintenance of wind farms

- CLIENT: SEVERAL COMPANIES
- LOCATION: CROATIA, MONTENEGRO, REGION
- SCOPE OF WORK: MAINTENANCE OF WIND FARMS  
THROUGHOUT CROATIA AND THE REGION
- YEAR: **2019**





# Croatia: Geothermal power plant

- CLIENT: **SIEMENS CROATIA**, INVESTOR: **MB HOLDING, TURKEY**
- PRODUCT GROUP: SIEMENS SIVACON, NX PLUS, SIMATIC, SIPROTEC
- LOCATION: '**VELIKA 1**' – CAPACITY **16.5 MWE**, THE LARGEST GEOTHERMAL POWER PLANT IN CONTINENTAL EUROPE
- SCOPE OF WORK: THE SUPPLY OF EQUIPMENT AND ELECTROMECHANICAL WORKS IN TRANSFORMER STATION OF GTE VELIKA CIGLENA
- YEAR: **2018**





# Oman: 220 kV substation

- CLIENT: (SIEMENS) KONČAR POWER TRANSFORMERS
- LOCATIONS: SOHAR, OMAN
- SCOPE OF WORK: SUPERVISION OF INSTALLATION AND TESTING OF POWER TRANSFORMERS 500 MVA, 220 kV
- YEAR: 2018

**SIEMENS**



# Egypt: Combined - cycle natural gas power plants

- CLIENT: SIEMENS AG, GS SCM C SG EFS FS
- LOCATION: BENI SUEF, NEW CAPITAL & BURULUSS
- SCOPE OF WORK: SUPERVISION OF INSTALLATION OF POWER TRANSFORMERS 485 MVA, 500 kV
- YEAR: 2018

**SIEMENS**



# Croatia: SS 110/10 (20) kV Zamet

- INVESTOR: CROATIAN TRANSMISSION SYSTEM OPERATOR LTD.
- CLIENT: SIEMENS CROATIA
- LOCATION: CROATIA
- SCOPE OF WORK: INSTALLATION OF GIS 110 kV FOR INTERNAL INSTALLATION
- YEAR: 2017- 2018



# Ukraine: Equipment for subarctic conditions

- CLIENT: **CROSCO**, FOR UKRGASVYDOBUVANNYA (UGV) PJSC
- LOCATION: **UKRAINE**
- SCOPE OF WORKS: **PREPARATION OF EMSCO 605:**
  - Replacement of MCC connector and connecting board, drilling plant's cables and connectors, cooling units in PCR, complete lighting on the drill facility
  - Complete rig winterization
- YEAR: **2016 -2017**



# UK: Offshore wind park

- CLIENT: **DONG**, PROINTEGRIS FOR **SIEMENS**
- LOCATION: **BURBO BANK & WALNEY EXTENSION - ONSHORE / OFFSHORE PLANT 400, 220, 34 kV FOR WIND POWER CONNECTION**
- SCOPE OF WORK: **FUNCTIONAL TESTING**
- YEAR: **2016**

**SIEMENS**





# Croatia: Dubrovnik airport

- CLIENT: **DUBROVNIK AIRPORT**
- LOCATION: **DUBROVNIK, CROATIA, MEDITERANEAN TOURISTIC CENTAR**
- SCOPE OF WORK: **RECONSTRUCTION OF SUBSTATION TS-1**  
**10(20)/0,4 kV; 2x1000 Kva.**
  - all works performed during the height of the season  
without the air traffic disturbance
- YEAR: **2016**





# Croatia: SS 110/10 (20) kV Ploče

- INVESTOR: CROATIAN TRANSMISSION SYSTEM OPERATOR LTD.
- CLIENT: KONCAR - POWER PLANT AND ELECTRIC TRACTION ENGINEERING INC.
- LOCATION: PLOČE, CROATIA
- SCOPE OF WORK: SUPPLY AND INSTALLATION OF PRIMARY EQUIPMENT (GIS 110 kV) FOR INTERNAL INSTALLATION
- YEAR: 2016

**SIEMENS**



# Iraq: New AIS 132/33/11kV SS

- CLIENT: KURDISTAN REGIONAL GOVERNMENT, MINISTRY OF ELECTRICITY (MOE)
- LOCATION: KOYA, REZAN, SHAQLAWA, SORAN, QUSHTAPA
- PROJECT DESCRIPTION:
  - ERECTION WORKS
  - SITE TESTING & COMMISSIONING OF ALL EQUIPMENT/SYSTEMS
- YEAR: **2013-2014**



# Croatia: Zagreb international airport

- CLIENT: **ZAGREB INTERNATIONAL AIRPORT**
- LOCATION: **ZAGREB, THE CAPITAL OF CROATIA**
- SCOPE OF WORK: **CONSTRUCTION & RECONSTRUCTION OF SS & SWITCHYARDS**
  - Challenge: continuous power supply
- YEAR: **1996-2014**



# Albania: Main 220 kV switchyards

- CLIENT: KESH SH.A. - KORPORATA ELEKTROENERGJITIKE SHQIPTARE
- LOCATION: ALBANIA
- MAIN SWITCHYARDS FOR HYDRO POWER PLANTS: FIERZA & VAU DEJËS
  - All works conducted **without power interruptions**
- YEAR: **2013**



# Croatia: Jackup drilling rig Labin

- CLIENT: **CROSCO**, INTEGRATED DRILLING & WELL SERVICES CO.
- LOCATION: CROATIA - THE ADRIATIC SEA
- SCOPE OF WORK: RECONSTRUCTION, TESTING & COMMISSIONING OF THE MAIN POWER CONTROL STATION (GENERATOR INCOMERS, SWITCHBOARD, MAIN AC/DC DRIVES)
- YEAR: **2013**



# Croatia: Photovoltaic solar plant Biograd

- CLIENT: **MERIDIAN NEUE ENERGIEN GMBH, GERMANY**
- LOCATION: BIOGRAD- THE BIGGEST SOLAR PLANT IN THE REGION OF **DALMATIA**
- THE INVESTOR'S **INTERNAL QUALITY CONTROL** UNDERLINES EXTREMELY HIGH QUALITY CONSTRUCTION & TECHNICAL PERFORMANCE
- YEAR: **2013**





# Albania: Main 220 kV SS

- CLIENT: OST SHA ALBANIA -OPERATORI SISTEMIT TRANSMETIMIT
- LOCATION: MAIN SUBSTATIONS IN THE CAPITAL OF ALBANIA: TIRANA, ELBASAN
- ALL WORKS CONDUCTED IN EXTREME WEATHER CONDITIONS
- YEAR: **2012**



# Croatia: Thermal power plant Zagreb

- CLIENT: CROATIAN ELECTRICITY COMPANY HEP-PRODUCTION LTD., BUILDING: BLOCK "L" 100 MWE/80 MWT
- SCOPE OF WORK: RECONSTRUCTION OF 110 kV SWITCHGEAR, RECONSTRUCTION OF LV & MV DISTRIBUTION BOARDS/SWITCHGEARS
  - All works conducted **without power interruptions**
- YEAR: **2009**



# Croatia: Windpark Vrataruša 42 MW

- CLIENT: **VALALTA ROVINJ** — **GREENFIELD INVESTMENT**
- FIRST SIGNIFICANT **CROATIAN** WIND PARK CONNECTED TO 110 kV TRANSMISSION NETWORK
- SCOPE OF WORK: MAIN CONTRACTOR FOR **ELECTRICAL INSTALLATION & ERECTION WORKS**
- YEAR: **2008-2009**



# Croatia: Motorways Ltd.

- CLIENT: **HAC CROATIAN HIGHWAYS LTD.**
- KEY OBJECTS FOR TRANSMISSION & DISTRIBUTION
- SCOPE OF WORK: **RECONSTRUCTION OF 110 kV SWITCHGEAR**
  - SS Oštarije, SS Andrijevci 110/35/10(20) kV
  - SS Bobovje 110/20 kV, SS Obrovac 35/10/20 kV
  - SS Sveti Rok, SS Mala Kapela 35/20 kV
- YEAR: **2003-2008**



# Croatia: Thermal power plant Zagreb

- CLIENT: SIEMENS CROATIA
- LOCATIONS: EL-TO ZAGREB
- SCOPE OF WORK: RECONSTRUCTION OF EL-TO ELECTRIC POWER PLANT
- PROJECT DURATION: 18 MONTHS

**SIEMENS**



# Croatia: 7 biomass cogeneration plants

- LOCATIONS: BE-TO CHP SISAK, OSIJEK, ĐAKOVO, SLAVONSKI BROD, GLINA 1, GLINA 2, SAVA
- NET ELECTRICAL OUTPUT: 1-5 MWe, HEAT: 3-15 MWt
- SCOPE OF WORK: **GENERAL CONSUMPTION OF BE-TO**





Can we HELB you?



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# HEL B Team

- **HEL B HAS THE TOP EXPERTS WHO, AT EXTREME WEATHER, DIFFERENT LOCATIONS AND COMPLEXITY OF OBJECTS ALWAYS SUCCESSFULLY OVERCOME OBSTACLES AND DELIVER TOP-NOTCH RESULTS.**
- **OUR VALUES, SUCH AS **MUTUAL COOPERATION**, LEAD US TO SUCCESS**
- **WE ALWAYS PUT OUR CUSTOMER FIRST, SO HEL B OFFERS A SOLUTION BEYOND THEIR EXPECTATIONS**



Thank you



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