

Egypt – Romania Business Forum



Cairo 20 November 2017

ROMELECTRO

General Presentation



discover the business power

Short history (1)



**Years
of sustainable
development**

- | | |
|------------------|---|
| 1971 | Romelectro is set up as the foreign trade company of the Ministry of Energy |
| 1974-1978 | First export works for dams and OHTLs in Iran and Algeria |
| 1980 | Complex T&D contracts in Egypt, Iraq, Jordan, Lebanon, Malaysia |
| 1982–1984 | Turn-key works of Vafregan Dam in Iran |
| 1990 | Power T&D works in the Philippines and Thailand |
| 1993 | Romelectro is present in 19 countries |
| 1994 | Romelectro becomes a 100% private company |
| 2004 | Romelectro becomes major shareholder in ISPE, CELPI and Electromontaj Carpați Sibiu, setting up Romelectro Group |
| 2008 | Romelectro and ISPE become investors of Ecogen Energy Buzau and start the Construction of a Combined Heat and Power Plant in Buzău |

Short history (2)



**Years
of sustainable
development**

- | | |
|------------------|---|
| 2009 | Romelectro becomes investor of Voineasa Micro Hydro Power Plant |
| 2007-2014 | Romelectro develops environmental protection competencies: Low NOx burners, Dense Slurry Systems, Flue Gas Desulphurisation |
| 2014 | Romelectro signed the contract for Bradu 400/220/110/20 kV substation Refurbishing |
| 2015 | Romelectro signed the contract for Stejaru HPP refurbishment |
| 2016 | Romelectro Arabia LLC located in Jubail KSA is the new member of Romelectro Group. Romelectro is major shareholder |
| 2016 | Romelectro signed a contract in Egypt, with Orascom Construction, for Burullus Combined Cycle Power Plant, Unit 1. Romelectro Egypt Branch is set-up |
| 2016 | Romelectro signed a contract for the completion of 5 lots of Overhead Transmission Lines of 110 kV and 220 kV in Kosovo. Romelectro Kosovo Branch is set-up. |
| 2016 | Romelectro signed with Romgaz a contract for the Iernut CCGT 400 MW Greenfield Project |

Romelectro Group Structure



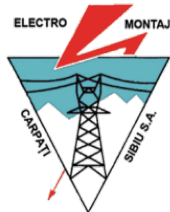
EPC Contractor, Project Developer and Investor in the fields of power and heat generation, power transmission & distribution, environmental protection and industry

1971



Leader as consulting and engineering company in the field of power generation, power T&D, environmental protection and industry

1949



Contractor for construction and installation works for power Transmission and Distribution projects.

1949



Contractor for design, construction and testing for steel structures in the field of power T&D and tele-communication.

1953



New entity with Romanian and Saudi Shareholders, acting as EPC Contractor and Project Developer in Arab Countries

2016

Romelectro Egypt Branch 2016

Romelectro Kosovo Branch 2016

Romelectro Group on international markets:

Turn key contracts in:

Albania	Algeria	Cyprus	Egypt
Greece	Iran	Irak	Syria
Jordan	Kosovo	Kuweit	Lebanon
Malaysia	Nigeria	Peru	Philippines
Thailanda	Turkey	UAE	Yemen

Consulting in:

Australia	Germany	Greece	Iraq
Japonia	Jordan	Moldova	Poland
Syria	USA	Yemen	

Engineering Services in:

Austria	Algeria	China	Cyprus
Egypt	Philippines	KSA	Iran
Iraq	Jordan	Lebanon	Malaysia
Peru	Syria	UAE	

MISSION

- To contribute to building the future in a sustainable mannner, in full harmony with environment and society, while saving time, energy, human and financial resources.
- To provide to our clients the highest quality of integrated complex turn key projects.

VISION

- Promoting the highest professional standards and maintaining excellency in complex energy and environment projects.
- Focusing all our capabilities and resources on providing high tech solutions in power sector.

VALUES

- Integrity: we are adherent of legal and moral obligations
- Accountability: we take charge of every step towards successful completion of each project
- Perseverance: we are highly determined toward reaching our goals
- Discipline: we are greatly regulated, and walk toward proceedings, applying the Integrated Management System for Quality, Environment, Information Security, Occupational Health and Safety and Social Accountability.

Romelectro Market Areas

Power
Transmission
and
Distribution

Power
Generation -
Thermal

Power
Generation -
Hydro

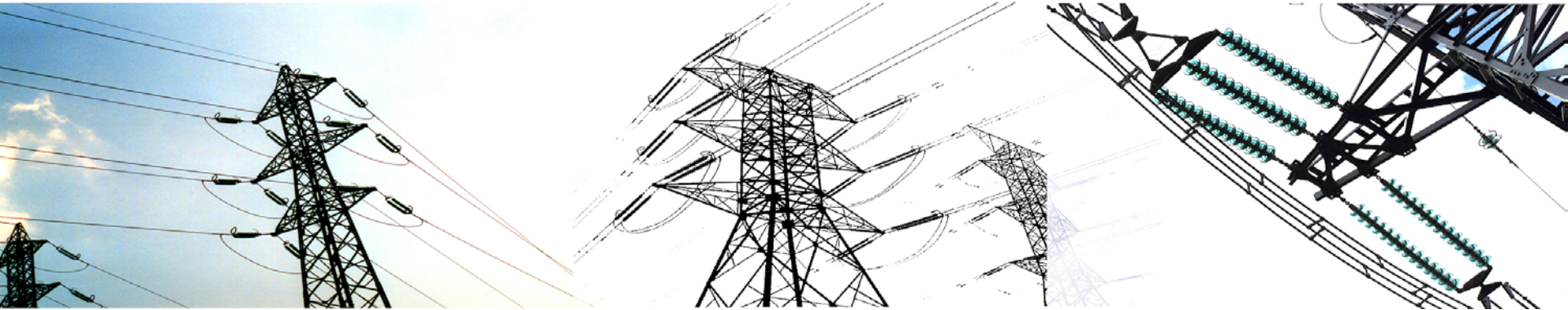
Environmental
Protection

Industry

Romelectro – turn-key for contractor green-field or rehabilitation projects

- Technical, commercial and institutional consultancy
- FEED, Basic and detail engineering
- Equipment supply
- Installation and erection
- Site supervision
- Commissioning

Power Transmission & Distribution



- Romelectro's capabilities in the Power Transmission and Distribution field have been proved through the 45 years long history of domestic and international projects:
- Engineering for more than 22,000 km of OHTLs in Romania and about 10,000 km OHTLs (750 kV, 400 kV, 220 kV, 110 kV) km in countries like Iran, Iraq, Philippines, Jordan, Syria, Algeria or Malaysia

Power Generation - Thermal



- Complex rehabilitation, retrofitting and upgrading programs in the field of thermal power plants and cogeneration plants developed for more than 3,000 MW.
- Engineering and design for more than 15,000 MW in conventional & nuclear power plants, representing 90% of the total installed capacity of Romania.
- Projects for new facilities using both conventional fuels and renewable energy sources (biomass, biofuel, waste).

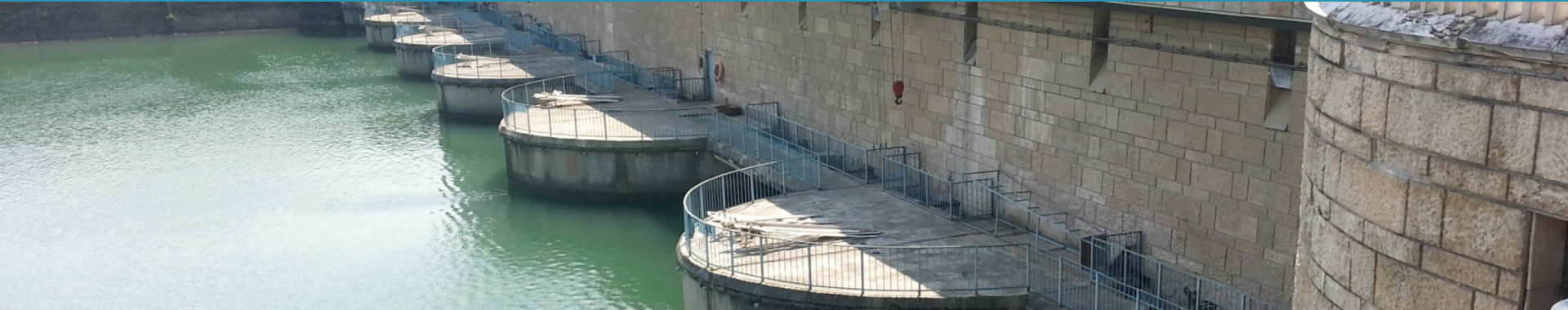
Power Generation - Thermal



Romelectro offers turn-key contracts for entire power plant or partial systems:

- Boiler House
- Turbine hall
- Electrical HV, MV, LV Systems, Power evacuation to the grid
- Cooling systems
- Control systems based on SCADA, DCS, PLC
- Auxiliary plants:
 - Fuel handling plants
 - HVAC, indoor installations, Fire fighting

Power Generation - Hydro



- As EPC Contractor, Romelectro is leading the complex development of the Jiu River on Bumbești – Livezeni stretch and the construction of two hydropower plants with an installed power of more than 60 MW.
- As investor and general contractor, Romelectro developed 3 Micro Hydro Power Plants on Mănăileasa River with an installed power of 1.45 MW.
- As EPC Contractor Romelectro and its partner Litostroj Slovenia leads the contract to refurbish Stejaru HPP in Romania, 6 units gathering 210 MW.

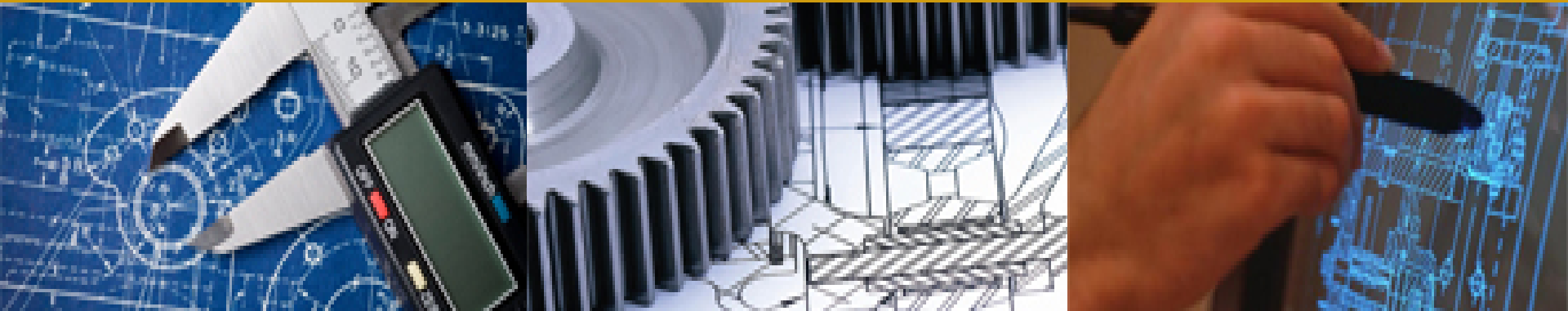
Environmental Protection



Romelectro offers also turn-key solutions for environmental protection systems like:

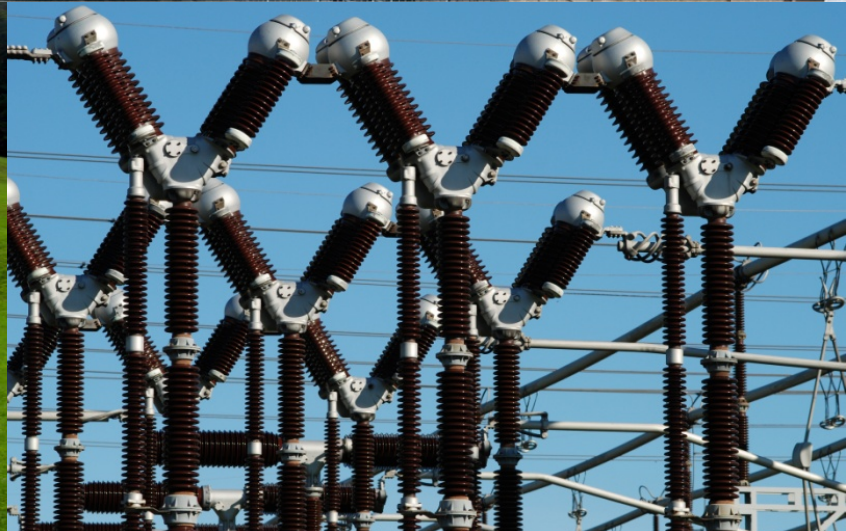
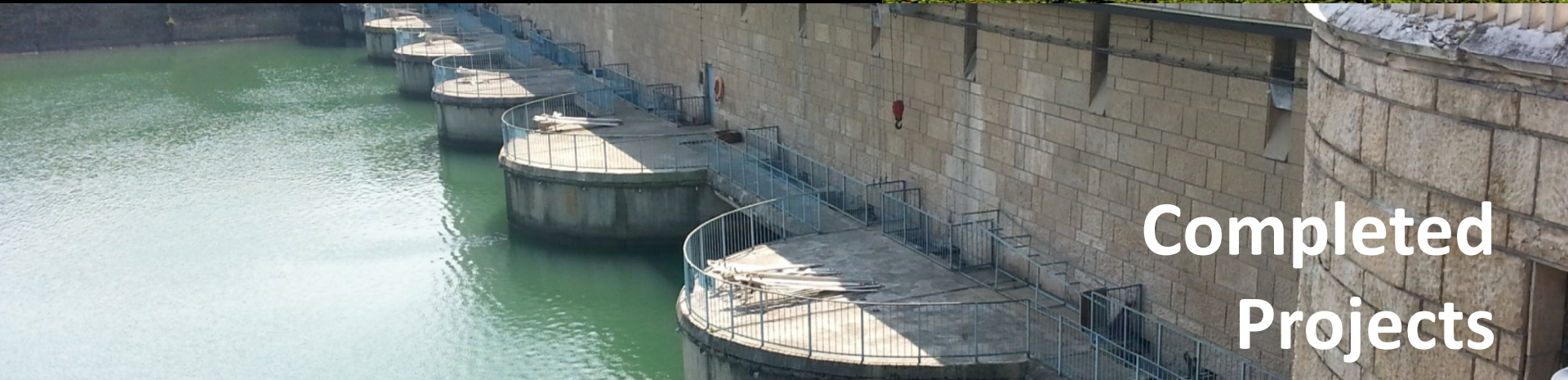
- Low NOx burning systems
- Flue Gas Desulfurization
- Electrostatic precipitators
- Ash and slag removal, transport and storage
- Water treatment plants
- Condensate polishing plants

Industry



Romelectro takes over the whole chain from technical general audit to implementation, going through:

- Technical audit (thermal, electrical, utilities),
- Projects technical-economic analysis – opportunity,
- Prefeasibility and feasibility studies,
- Cost – benefit analysis,
- Business plan, Identifying financing/co-financing sources for investment, financial model,
- Social, economic and environmental impact assessment,
- Turn-key contracts.



Iernut TPP - Low NOx



Scope of the project: modernization and retrofitting of firing systems of 4 x 320 t/h natural gas fired boilers at Iernut TPP, by implementation of low NOx burners and automatic BMS.

Starting year: 2009

Commissioning year: 2011

Client: ELCEN București

Romelectro: EPC Contractor

Rehabilitation of Voineasa Micro Hydro Power Plant



Scope of the project: developing the 3 Micro Hydro Power Plants on Mănăileasa River with an installed power of 1.45 MW by replacing the old generation capacities with new hydro-mechanical and electrical equipment.

Starting year: 2009

Commissioning year: 2011

Romelectro: Investor and EPC Contractor

Turceni TPP - Dense Slurry System



Turceni TPP is the largest coal fired producer, supplying more than 10% of the energy consumed in Romania.

Starting year: 2009

Commissioning year: 2012

Client: Turceni TPP

Romelectro: EPC Contractor

400/110 kV Braşov Substation Refurbishment



The substation supplies the local consumption area (around 165 MW) being also the connecting point for Braşov TPP. Upgrading of the primary and secondary circuits in the 400/110kV substation, by full refurbishing.

Starting year: 2010

Commissioning year: 2013

Client: Transelectrica

Romelectro: EPC Contractor, Consortium Leader

CG Holdings Belgium NV: Consortium Partner

ISPE: Engineering and design

Electromontaj Carpaţi Sibiu: Erection and commissioning works

Işalnița TPP - Flue gas desulphurisation system



Reducing the sulphur dioxide (SO₂) emissions.

Starting year: 2012

Commissioning year: 2014

Client: Oltenia Energy Complex – Işalnița TPP

Babcock Noell GmbH – Consortium Leader

Romelectro – Consortium Partner

Ispe – Engineering

Govora CHPP - Electrostatic precipitator modernization



Modernization of the electrostatic precipitators for boilers no. 5 and no. 6 at Govora CHPP, aiming to reduce the level of dust emissions at maximum 48 mg/Nm^3 at ESP's outlet.

Starting year: 2012

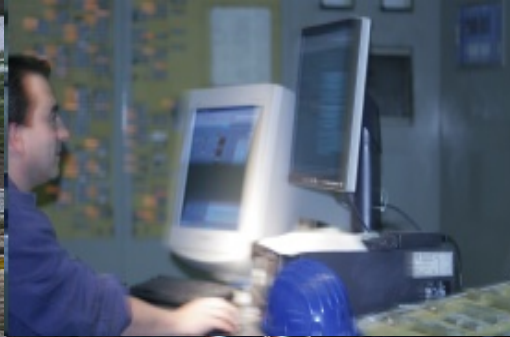
Commissioning year: 2013

Client: Govora CHPP

Romelectro – EPC Contractor

Techno Montaj – Mechanical erection

Icpet Eco – Engineering and design



Ongoing
Projects



Bradu Substation Electrical Substation 400/220/110/20 kV



The 400/220/110 kV Bradu Substation is of particular importance for the National Power System and also for Pitești and Râmnicu Vâlcea industrial areas. It represents an important connection point of Muntenia, Oltenia and Transylvania region networks.

Starting year: 2014

Commissioning year: 2018

Client: Transelectrica

Romelectro: EPC Contractor

ISPE: Engineering and design

Electromontaj Carpați Sibiu: Erection and commissioning works

400 kV OHTL Iron Gates – Anina – Resita



The “400 kV Overhead Transmission Line Portile de Fier – Anina – Resita” is part of the complex project implemented by TRANSELECTRICA (the Romanian Transmission Operator) “Transition to 400kV of the existing axe of 220kV Portile de Fier – Resita – Timisoara – Sacalaz – Arad”, project that defines the first step in strengthening the interconnection network with UCTE in the south – west area of Romania, creating the adequate premises for the connection with Serbia.

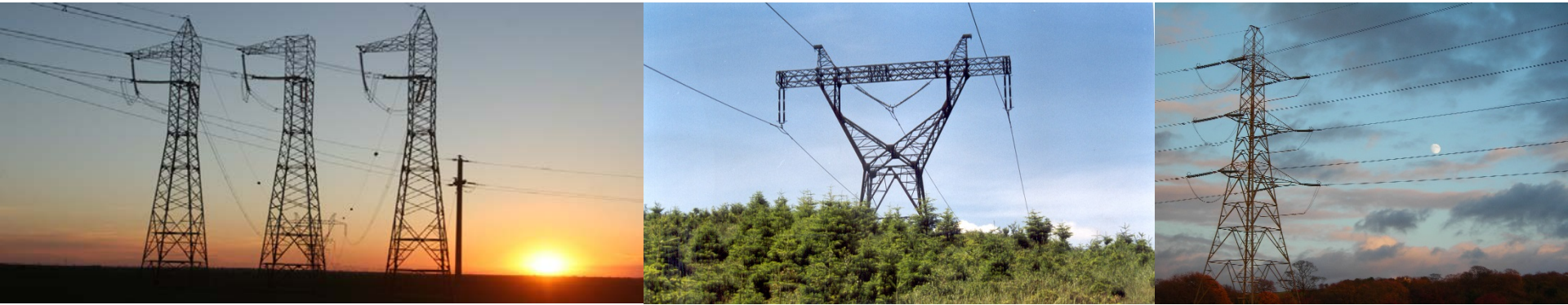
Starting year: 2015

Commissioning year: 2018

Client: Transelectrica

Romelectro: EPC Contractor

OHTL in Kosovo



220kV and 110kV Transmission and Distribution Lines and Cables

Starting year: 2016

Commissioning year: 2018

Client: KOSTT (Kosovo Transmission System Operator)

Romelectro: Contractor General

ISPE: Engineering

Burullus Egipt CCGT 1200 MW



Romelectro together with its Consortium partner Energomontaj performs the works of erection, testing and commissioning for unit 1 1200 MW of the Combined Cycle Power Plant Burrulus, Egypt. Burullus is one of Egypt “Mega-Projects”. This Program gathers 14,4 GW new power in the country.

Project start date:2016

Project commissioning date: 2017

Client: ORASCOM CONSTRUCTION

Beneficiary: Egyptian Electricity Holding Company (EEHC)

Romelectro: Consortium leader

Energomontaj: Consortium partner

Iernut CCGT 430MW Greenfield



The project is a turnkey contract, including: engineering, equipment supply, construction works, erection and commissioning.

Project start date: 2017

Project commissioning date: 2019

Client: Romgaz – Romanian State Company

Duro Felguera (Spain): EPC, Consortium leader

Romelectro: EPC, Consortium partner

DF and ISPE: Engineering

STEJARU Hydro Power Plant Refurbishment



The project includes ample rehabilitation and modernization works to be carried out on the equipment and installations for all 6 units of Stejaru HPP.

Project start date: 2015

Project commissioning date: 2021

Client: Hidroelektrica SA

Romelectro: EPC Consortium Leader

Litostroj Power Slovenia: EPC

UCM Reșița: Equipment supplier

ISPE: Engineering

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