



ANNUAL REPORT 2016

Turning objectives into results

Building a New Era of Energy

The energy sector is facing probably the most serious disruption in these years, compared with any other world phenomena!

The options for a safe supply and a clean environment, supported by the development of the power, information and telecommunication technologies, conducted to a deep reconsideration of the entire power chain: production, transmission and distribution.

Romelectro, as a developer of complex projects in Energy, investigates these trends and offers to its customers the right solutions to implement those changes!



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CEO

2016 was the first year of the company's reengineering programme launched at the end of the previous year. Many of the proposed objectives were accomplished or are under way.

The most successful strategical direction is the approach to international markets.

In 2016 we succeeded to register Romelectro Arabia LLC, as a new born Saudi entity, with Romelectro major shareholder. We are now in the process of qualification as a supplier for the largest utilities companies in the Kingdom.

In Egypt we have also been able to get into the circle of companies that build the world's largest gas-fired power plants, 14.4 GW all together, by signing with Orascom Construction a contract for the execution works of a power unit of 1200 MW by Burullus, on Mediteranean Sea Coast.

Another significant achievement is the award of the contract for the execution of 5 OHTLs segments of 220 and 110 kV with KOSTT, the Kosovo transmission system operator.

Following another direction of its reengineering, Romelectro succeeded to consolidate the position in the Romanian market by signing Iernut CCGT Romania contract, the largest investment of a state-owned company, Romgaz, since 1990 and our biggest ever project in Power Generation on Gas, in Romania. In Iernut we will build together with our Consortium Partner Duro Felguera 430 MW new power.

2016 was the year of consolidation at the Group level by a much better integration, creating a real competitive advantage. Dedicated reengineering programmes conceived for this purpose at the level of every company of the Group, have reinforced this purpose of a higher integration rate of the in house values.

I want to underline especially the progresses achieved in the contracts management, under financial, technical and legal aspects, with effects in an improved relationship with the partners and sub-contractors, but mainly with the clients.

In the same frame of integration we have recorded important accumulations as capabilities in engineering.

Finally, another strategical direction to expand businesses to non-power industries, perhaps not at the pace we would expected, we have made progress in promoting our offer to other industries and market segments, increasing their energy efficiency, energy quality and reducing the environment impact.

Just the fact that the employees number increased in 2016 from 104 to 138 (and such a growth was registered also by the other companies of the Group) shows a healthy development of the company.

In the coming years, we will continue to consolidate ourselves in the countries where we demonstrated a performant presence and to expand to the neighbouring countries and new regions!

In the same time, we will further foreseen the Romanian market that has long been waiting for a return to a larger volume of investments, strongly required by the Romanian power system.

Our future is certainly connected with the development of the world energy nowadays, driven by the technology progresses and world power policies.

And we as a group are able to perform these works!



“In the coming years, Romelectro will continue to consolidate in the areas where we demonstrated a sustainable presence and to expand to the neighbouring countries and new regions!”

CRISTIAN SECOSAN
GENERAL MANAGER

TURNING OBJECTIVES INTO

RESULTS

2,883

b\$

total value
contracted by
Romelectro

1,280

b\$

in the
Middle East
(40%)

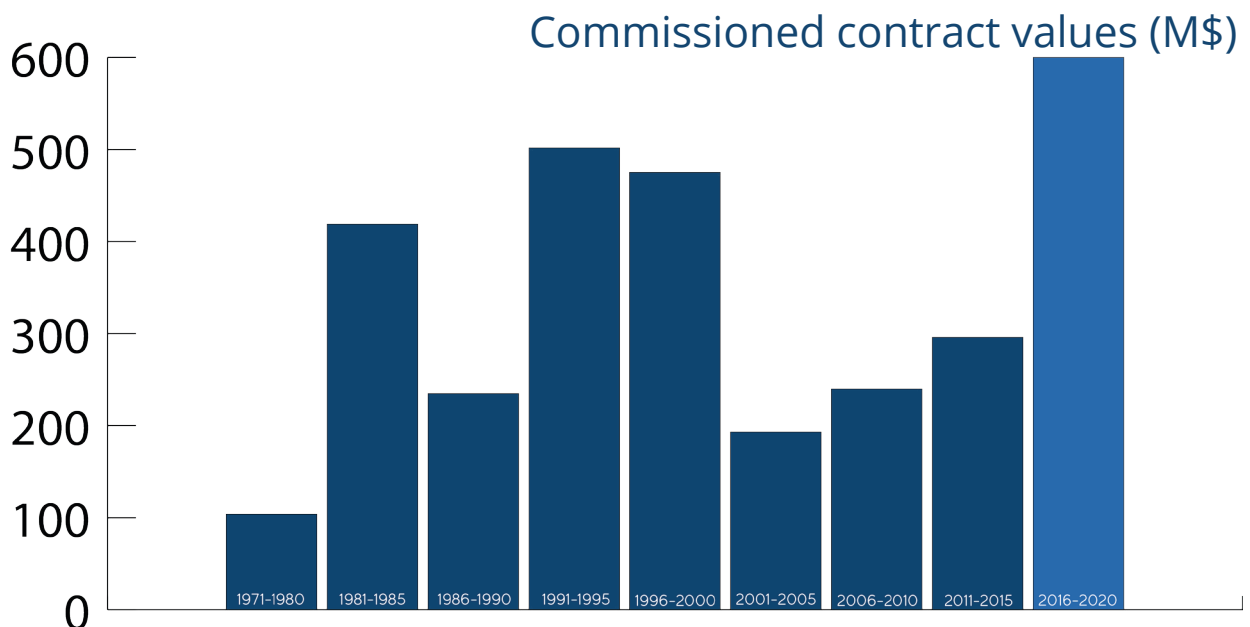
60

M\$

contract average
value
in 2015-2020

Years	1971-1980	1981-1985	1986-1990	1991-1995	1996-2000	2001-2005	2006-2010	2011-2015	2016-2020
Commissioned Contracts (MUSD)	104	419	235	502	475	193	240	296	600

Forecast

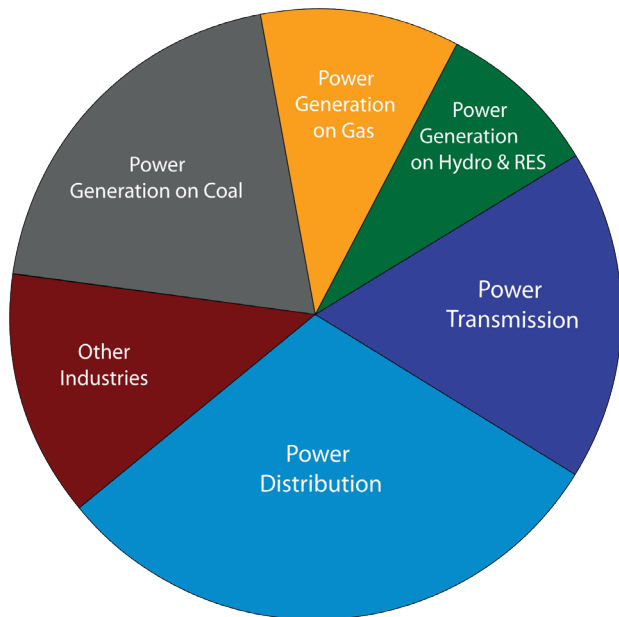


Contracted in
2016

Back to the Pyramids! Romelectro came back to Egypt, signing a contract with Orascom Construction, for the execution of Burullus CCGT unit 1-1200 MW.

Romelectro Group on Market Segments

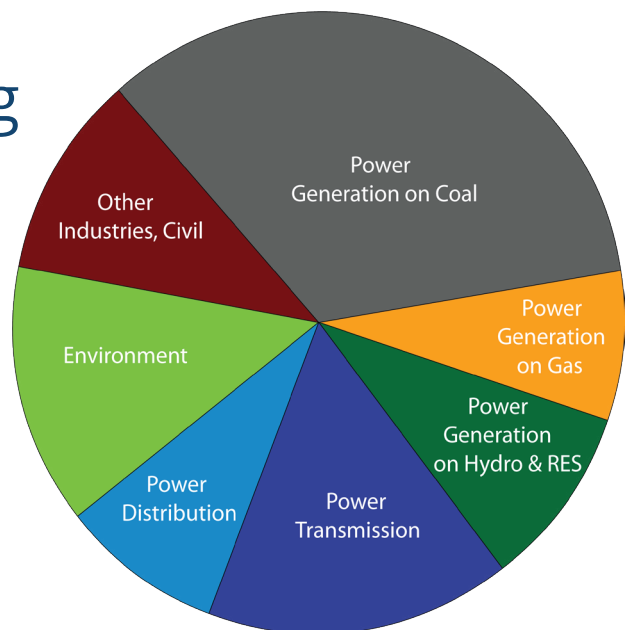
EPC



Power Generation on Coal	573	19.87%
Power Generation on Gas	308	10.68%
Power Generation on Hydro & RES	248	8.60%
Power Transmission	503	17.44%
Power Distribution	874	30.31%
Other Industries	378	13.11%
Total (M\$)	2,884	100.00%

Consulting & Engineering

Power Generation on Coal	29,945	34,12%
Power Generation on Gas	6,771	7,72%
Power Generation on Hydro & RES	8,357	9,52%
Power Transmission	14,114	16,08%
Power Distribution	7,594	8,65%
Environment	11,826	13,48%
Other Industries, Civil	9,152	10,43%
Total (k\$)	87,759	100.00%

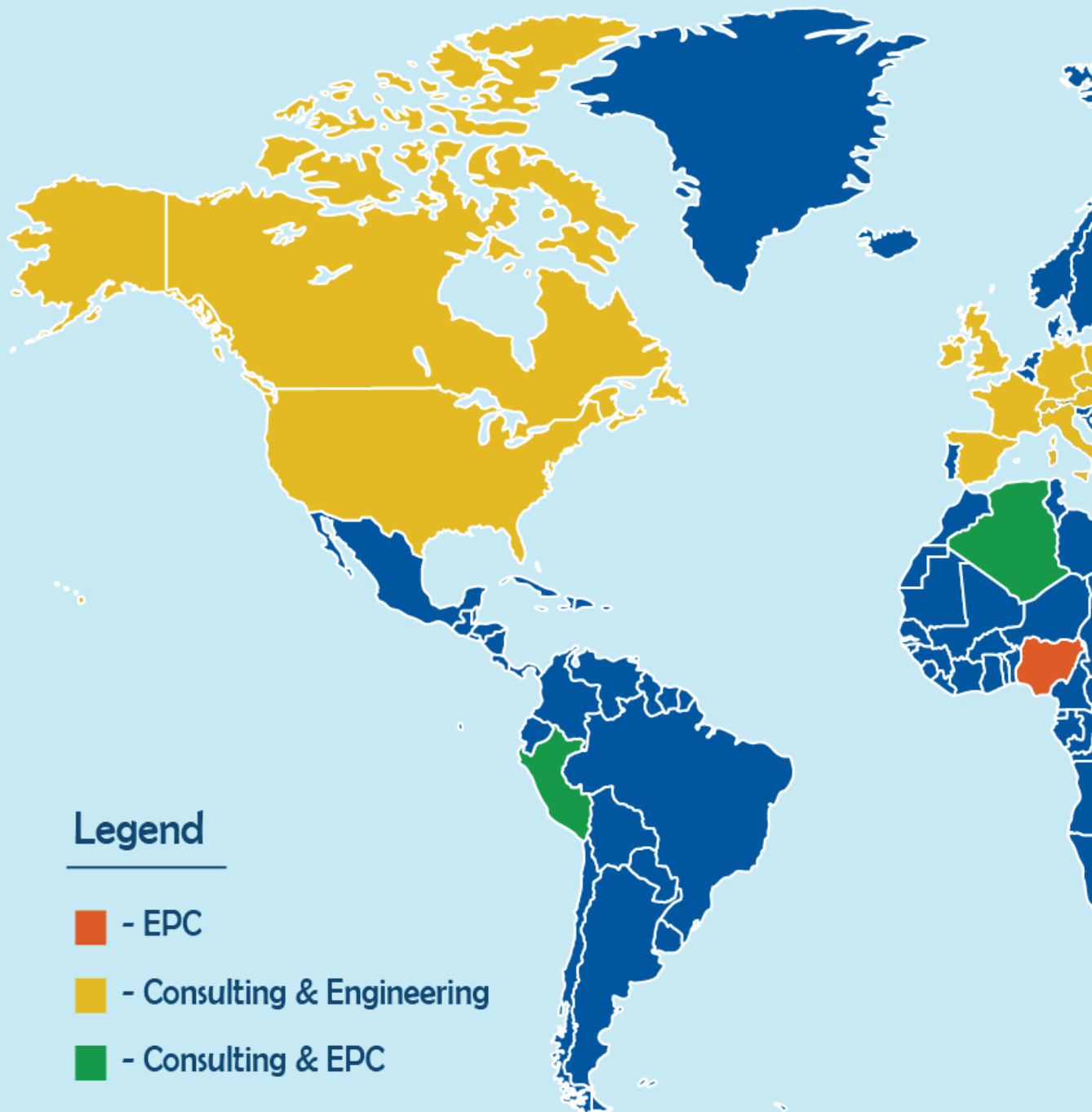


Awarded in
2016

The biggest investment in
Power in Transylvania
after 1990: Iernut CCGT 430 MW,
greenfield.

Client: Romgaz.

Romelectro in consortium with Duro
Felguera won the EPC Contract.



NEW APPROACHES IN THE

WORLD ENERGY

The World Energy is currently confronted by challenges that will lead to a fundamental reconsideration of power production, transmission and distribution systems.

These challenges are driven by the need to ensure high energy security for customers, the need to avoid climate changes, the progress of technologies in the matter of energy, and especially information and telecommunications. These challenges have defined certain directions that will develop the world energy, with effects in the investment policy that all the players in the energy will adopt.

The first challenge is the replacement of fossil fuels with Renewable Energies Sources (RES).

The sharp development of renewable energies, registered in all regions of the globe, but especially in some regions like the African continent is of great interest to Romelectro. Additional investments are being added to these works with an important role in optimizing the process of energy production, such as **energy storage**, for which Romelectro is prepared with a competitive offer.

Decarbonization is the second direction. Coal-fired power plants, after a long process of upgrading to comply with global environmental legislation, continue to be considered as the main source of carbon dioxide emissions. Global forecasts for the next 35 years speak about coal production reduction in total energy production and minimization of the environmental impact of power units remained in operation.

Romelectro

is skilled to approach all of these new topics of the global energy market

Born in
2016

Romelectro Arabia LLC is born, as a Saudi juridical entity, headquartered in Jubail, with Romelectro major shareholder.

In the past 12 years, Romelectro Group has achieved a huge experience by upgrading the power units of all the Romanian power plants. All these accumulations will be put into the service of decarbonization actions in Romania and in all countries will adopt these programs. We do not make a secret that Romelectro will try to capitalize on this experience also in the construction of new coal-fired power stations that, at least at this very moment, many countries are initiating.

Another direction is the **digitalization** of energy systems, based on the progresses registered by power technologies as well as information and telecommunication technology.

The world market is evolving rapidly towards smart systems, smart grids, resulting in new challenges, like **cyber-security**.

Finally, an important direction of global energy development is **decentralization**: small production capacities, gas- or renewable- based, distributed and located near consumption, which reduces production in big power units with effects in optimizing network operation, increasing system stability and reducing network losses. In this matter, Romelectro has not only a general contractor experience, but also as investor with ISPE of a cogeneration plant from Buzau, which supplies the citizens with heat, and inject 8 MW power in the grid.



in terms of competitiveness,
safety and quality

Started in
2016

Electromontaj Carpati Sibiu, member of the Group, performed a structural engineering, consolidating the capabilities in execution and commissioning of electrical systems.

GROUP OF COMPANIES

Implementing a policy of expansion as offer and services, between 1995 and 2006, Romelectro became the major shareholder of ISPE, CELPI and Electromontaj Carpati Sibiu companies.

In the last few years, an internal integration program has been running at the level of Romelectro Group, with the stated goal of maximizing the companies' participation in complex projects, covering the Group's resources of the whole project chain, engineering, manufacturing, testing, erection, civil, commissioning.



Romelectro

EPC Contractor, Project Developer and Investor in the fields of power and heat generation, power transmission & distribution, environment and industry, in Romania and on international markets.



ISPE

Institute for Studies and Power Engineering, Leader in consulting (technical, financial and institutional) and engineering, in power and environment. Author as engineer of the Romanian National Power System.



CELPI

More than 60 years manufacturer of steel structures, towers, accessories, equipped shapes, for electricity and telecommunication towers. Behave one of the most performant testing station in the world



Electromontaj Carpati Sibiu

One of the most important companies in Romania, specialized in mounting, assembly, and commissioning services for turnkey electrical substations and OHTLs.



Romelectro Arabia

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



Romelectro Kosovo



Romelectro Egypt

In 2016 Romelectro finalised the procedures of founding and registering of Romelectro Arabia LLC in Jubail – Kingdom of Saudi Arabia, with Romelectro major shareholder, a company aiming to become EPC Contractor in GCC. In 2016 Romelectro Egypt Branch and Romelectro Kosovo Branch have been established, related to management of execution contracts signed in those countries.



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Romelectro is known as investor, project developer and EPC contractor for energy complex projects in Romania and abroad.

We rely on our experience gained and continuously improved during 46 years of national and international affairs in the energy field — generation, transmission, distribution -, environmental protection and industry.

BUSINESS AREAS

Thermal Power

As Romelectro's expertise over the years extended to the most of the Romanian Thermal Power Plants on coal or gas, we have the necessary competencies, technologies, resources and know-how to answer to our clients' needs for both greenfield projects or retrofit of the existing power units.

Hydro Power & Renewable

Romelectro is actively involved as EPC Contractor and Investor, in developing the hydropower potential, managing turnkey contracts for projects in hydropower and hydromechanical works. Romelectro manages as well contracts for any renewable type: wind, photovoltaics, biomass, biogas and waste to energy.

Power Transmission & Distribution

Power Transmission & Distribution sector has been since the beginning the core business of Romelectro. Our expertise is continuously expanded while new dimensions, technologies and standards are developing.

Environmental Protection

In line with the international environmental protection directives, Romelectro implements the most advanced technologies. In fossil fuel power plants we implemented high-tech solutions for flue gas desulphurization, electrofilters, ash and slag removal and storage in dense fluid technology and low NOx burning systems.

Industry

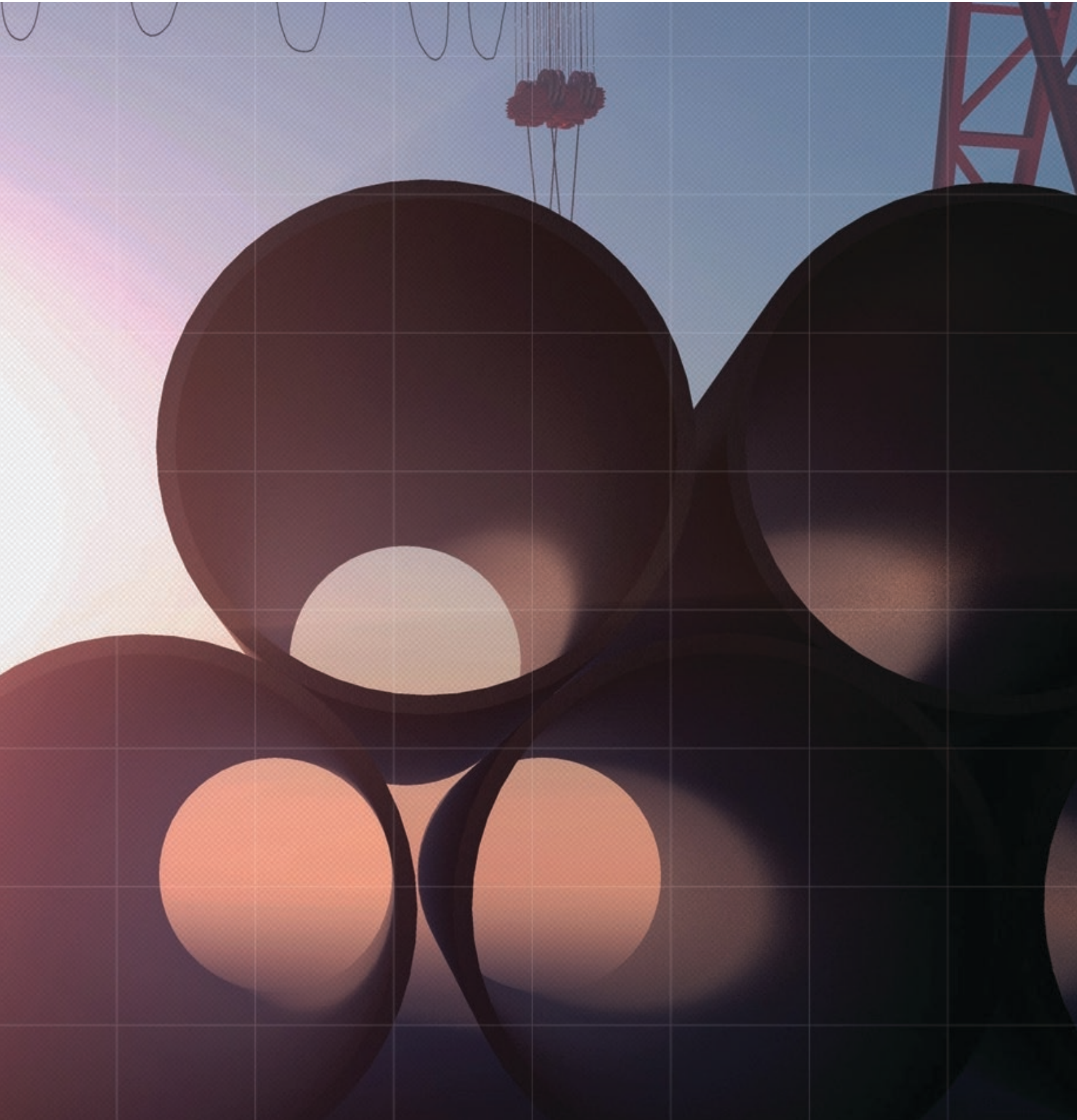
Romelectro shares its experience achieved in the energy industry with other industries - oil, gas, water, metall, cement, chemistry and pharma, food and beverage, etc.- in energy-optimization projects (thermal, electrical, utilities), for increasing energy efficiency and energy quality and mitigate the environmental impact.

Our offer

- Turn-key contract management
- Technical, financial and institutional consultancy
- FEED, Basic and detail engineering
- Project management
- Equipment supplier
- Manufacturing and testing of steel structures for power and telecommunication towers
- Installation and assembling services
- Civil works
- Site supervision
- Commissioning
- Operation monitoring during guarantee period
- Rehabilitation and modernization programs

MAIN PROJECTS OF 2016





400/220/110/20 kV refurbishment of BRADU Substation

Client: Transelectrica
Starting year: 2015
Completion year: 2018

Refurbishment of 400/220/110/20 kV BRADU Substation at all voltage levels, with the target of bringing it to the appropriate level of security corresponding to the region and the adopted energetic objectives.

Main technical characteristics

The 400/220/110/20 kV BRADU Substation is an important substation both for the National Energy System, as well as for the Regional Distribution Network .

The severe degradation of the existing equipments and appliances, found in operation for over 45 years, and the requirements of current standards led to the necessity of retrofitting BRADU power station.

The project involves the incorporation of modern equipment for primary circuits (type AIS 400 kV, GIS 220 kV outdoor, GIS 110 kV indoor, and 20 kV cells, encapsulated circuit breaker) and for secondary circuits, in order to achieve system protection in decentralized solution, protection, telecommunications and SCADA system for monitoring and centralized management of BRADU modernized electric substation.

Refurbishment works are carried out without affecting the existing circuits and installations, and based on a scheduling program of the works, with the assurance of maintaining the current level of security of supply.

Benefits

- Increasing the security of the National Energy System and raising the safety of power supply to final consumers.Reducing the internal technical consumption by using high performance equipment and installations.
- Reducing the time of interruptions
- Upgrading the substation through refurbishment at all voltage levels in order to bring it to the appropriate level according to the area using a modern technology



Key Figures

- 400 kV Substation with double busbar system
- 220 kV exterior Substation
- 110 kV interior Substation
- 20 kV interior Substation

Partnership

- Romelectro
- Electromontaj
- ISPE

Refurbishment of STEJARU hydro power plant

In 2016 Romelectro continued this contract which amounts approximately 75 million euro and will be performed over a 6-year period. The project includes ample rehabilitation and modernization works to be carried out on the equipment and installations for all 6 units of Stejaru HPP.

Client:
HIDROELECTRICA SA –
Hidrocentrale Bistrita River
Branch
Starting year: 2015
Completion year: 2021

Main technical characteristics

The most important hydropower objective operated by Hidrocentrale Bistrița branch is the hydro power complex Bicaz - Stejaru (HPP Dimitrie Leonida) commissioned in 1960. Stejaru HPP is located on Bistrița river, in the village of Stejaru, about 15 km downstream from Izvorul Muntelui dam, in Neamț county.

The refurbishment project includes modernization works of the hydro power plant, both through replacement of depleted equipments and through upgrade of older equipments to reach modern standards.

Main objectives:

- Harnessing the hydropower potential of Bistrita river with maximum efficiency.
- Increasing the units' yields, for independent operation, as well as together with other units.
- Increasing the amount of system services offered according to network requirements.
- Establishing a remote control system to ensure the groups' management from a remote computer.
- Providing the possibility to monitor key operating parameters of the groups, their transmission to the hydro energetic dispatch, and the diagnosis of possible causes of occurring events.

Benefits

The major benefits of the projects consists in the extension of Stejaru HPP lifetime with 30 years of operation, with yields superior to those of today. Throughout the works, the hydro units shall be withdrawn successively from operation, the availability level of the power plant being maintained any time at minimum 75% of the installed power.



Key figures

- 4 × 155 t4 Turbines type F 20 – 1600 & 4 Generators X 26,8 MW

- 2 Turbines type F 20 – 2300 & 2 Generators X 50 MW

Partnership

- Romelectro
- Litostroj Power Slovenia)
- UCM Resita
- ISPE

Iernut - 2 x215 MW Combined Cycle Power Plant (CCPP)

The value of the contract amounts approximately 268 million euro and will be performed over a 3-year period. The project is a turnkey contract, including: engineering, construction works, equipment procurement and erection, commissioning.

Client: ROMGAZ S.A –
Romanian State Company.

Starting year: 2017

Completion year: 2019

Main technical characteristics

2 units, each one comprising:

- 2 x GTs,
- 2 x HRSGs ,
- 1 x ST,
- Natural gas compressors station,
- gross efficiency: 56%,
- specific emission of CO₂: max. 0.360 tone CO₂ /MWh.

Benefits

- Increasing capacity for offered Power system services, according to electrical grid requirements.
- Obtaining reliability indicators for units and for the entire power plant, similar to those attained by global CCPP
- Establishing a remote control system to ensure the unit management from a remote computer.
- Providing the possibility to monitor key operation parameters of the groups, their transmission to the national energetic dispatch, and the diagnosis of possible causes of occurring events.
- Complying the European directives for environmental parameters.



Key figures

Partnership

- Duro Felguera Spain
- Romelectro
- ISPE

GE - Main equipment supplier

400 kV Overhead Transmission Line Portile de Fier - Anina Resita

Client: Transelectrica
(Romania TSO)
Starting year: 2015
Completion year: 2018

The 400 kV Overhead Transmission Line Portile de Fier – Anina – Resita is part of the ample project implemented by TRANSELECTRICA. Transition to 400kV of the existing axe of 220kV Portile de Fier – Resita – Timisoara – Sacalaz – Arad, project that defines the first step in strenghtening the interconnection network with ENTSO -E in the South – West area of Romania, creating adequate premises for the connection with Serbia.

Main technical characteristics

This first step in the interconnection between two countries Romania and Serbia, PORTILE DE FIER – ANINA – REȘITA, intends to increase the operational safety for both Power Systems involved, but also for the entire region of Southeast Europe.

Making the transition to 400 kV of Western Power lines generates a number of advantages, both for internal power transport networks functioning of National Power System and for strengthening the interconnecting networks with ENTSO-E.

Increasing the security of power supply for a greater consumption area of about 1000 MW.

Strengthening the Banat region energy, thereby increasing the stability of voltages in the area and consequently reducing energy losses.

Strengthening the network in South-Western Romania and thus increasing the amount of electricity that can be transited between Romania and Serbia, which generates higher financial compensations.



Key Figures

- Total OHTL route length
116 km

Partnership

- Electromontaj Bucuresti
- Leader
- Romelectro
- ISPE
- CELPI

Burullus CCPP Egypt Unit 1 - 1200 MW

Client: ORASCOM
CONSTRUCTION - Egypt
Starting year: 2016
Completion year: 2017

CCPP Burullus together with the other two CCPP in construction (Beni Suef and New Capital), will be the largest gas fired combined cycle power plants in the world, totalising 14,4 GW.

Main technical characteristics

In Egypt Romelectro together with its consortium partner SAEM Energomontaj performs erection, testing, pre-commissioning and assistance in commissioning of the entire Mechanical, Electrical and Instrumentation Works for the unit 1 – 1200 MW.

This unit consists of 2 Gas Turbines, 1 Steam Turbine and 2 HRSGs, auxiliaries and all associated piping, electrical control systems.

CCPP Burullus, together with the other two CCPP in construction in Egypt (Beni Suef and New Capital), will be the largest gas fired combined cycle power plants in the world.

The entire power plant in Burullus shall be completed till end of the first half of 2018 when all 4800 MW will be connected to the national grid.

The supplier of the main equipment is Siemens AG.



Key figures

Client: EEHC

Direct Contractor: Orascom Construction

Main equipment supplier:

- Siemens

Contractor:

- Romelectro – Consortium leader
- SAEM Energomontaj – partner
- Electroservice (Romania) – subcontractor
- Leeds (Egypt) – subcontractor

220 kV and 110 kV Transmission and Distributions Lines and Cables in KOSOVO

Client: KOSTT Kosovo
Starting year: 2016
Completion year: 2018

Main technical characteristics

Romelectro is EPC Contractor and its scope is complete design, obtaining of construction permit (including all local permits and expropriation), manufacturing and supply, civil works, erection works, interface with the electrical substations, for the following 5 segments of lines or cables:

- New 110 kV Double Cable System to connect new 110 kV Mitrovica 2
- New 220 kV Drenasi-2 Double Circuit Transmission line
- New Combined 110 kV Double Circuit Transmission line and 110 kV Cable System to Fushe Kosova
- New 110 kV Double Cable System between Pristina 4 and New Pristina 6
- New 110 kV OHL between Rahoveci S/S- Theranda S/S



Key figures

Partnership

- Romelectro
- Electromontaj Sibiu
- N.P.T.UKAB (Kosovo)
- ISPE

	2015	2016
EURO		
RON to EUR exchange rate on 31 December	4.5245	4.5411
RON to EUR average exchange rate	4.4450	4.4908
KEY FIGURES		
Employees, average number	104	138
Turnover	49,805,237	49,576,493
Nominal capital	3,454,667	3,442,038
Gross Profit	-1,489,918	1,102,691
Net profit	-1,489,918	758,973
PROFIT AND LOSS ACCOUNT		
	EUR	EUR
Operating revenue	50,841,370	52,490,497
Financial revenue	651,288	398,313
Operating expenses	52,667,085	51,370,504
Financial expenses	342,139	403,265
Total revenue	51,492,658	52,888,810
Total expenses	53,009,223	51,773,769
BALANCE SHEET		
	EUR	EUR
Noncurrent assets	7,295,737	5,330,007
Intangible assets	4,178	11,952
Tangible assets	4,026,561	1,161,218
Financial assets	3,264,998	4,156,837
Current assets	48,561,170	39,105,130
Regularisation&similar account	1,028,656	2,266,749
Assets total	56,885,563	46,701,886
Own capital	12,771,339	12,869,365
Debts	43,588,039	33,832,521
Liabilities total	56,885,563	46,701,886

RON

	2015	2016
RON to EUR exchange rate on 31 December	4.5245	4.5411
RON to EUR average exchange rate	4.4450	4.4908

KEY FIGURES

Employees, average number	104	138
Turnover	225,343,797	225,131,814
Nominal capital	15,630,640	15,630,640
Gross Profit	-6,741,133	5,007,428
Net profit	-6,741,133	3,446,573

PROFIT AND LOSS ACCOUNT

	RON	RON
Operating revenue	225,989,890	235,724,324
Financial revenue	2,894,975	1,788,744
Operating expenses	234,105,192	230,694,658
Financial expenses	1,520,806	1,810,982
Total revenue	228,884,865	237,513,068
Total expenses	235,625,998	232,505,640

BALANCE SHEET	RON	RON
Noncurrent assets	33,009,562	24,204,094
Intangible assets	18,904	54,275
Tangible assets	18,218,173	5,273,208
Financial assets	14,772,485	18,876,611
Current assets	219,715,012	177,580,307
Regularisation&similar account	4,654,156	10,293,533
Assets total	257,378,730	212,077,934
Own capital	57,783,922	58,441,075
Debts	197,214,082	153,636,859
Liabilities total	257,378,730	212,077,934




REELN
ROMELECTRO

CERTIFICATES

ROMELECTRO SA certified its Integrated Management System - of Quality, Environment, Occupational Health and Safety, Social Accountability and Information Security.







People need energy to be:

- secure,
- clean
- of quality,
- affordable and
- cheap

To comply simultaneously all these conditions is difficult!

Romelectro knows to do it!



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