



**Energotech**

*-est. 2002-*

# Your Energy, Our Technology

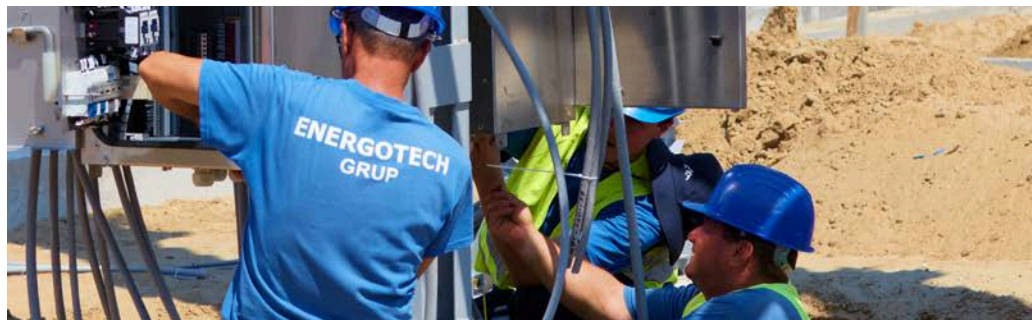
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Turnkey Energy, Nuclear Grade  
Works and Equipment Supply



## We are Energotech

One of Romania's most certified EPC contractors specialized in electrical infrastructure projects for power generation, transmission and distribution.



## Founded in 2002

We have evolved from an engineering and equipment supplier into a multidisciplinary company delivering turnkey EPC solutions for complex, highly regulated environments.

## Our projects

Reflect the same defining principles: technical precision, process control and accountability.





We integrate engineering, design, procurement, construction and commissioning under one responsibility line, ensuring predictability, traceability and full compliance from concept to operation.

The Deva Branch ensures proximity and responsiveness for projects in Central and Western Romania.

Deva

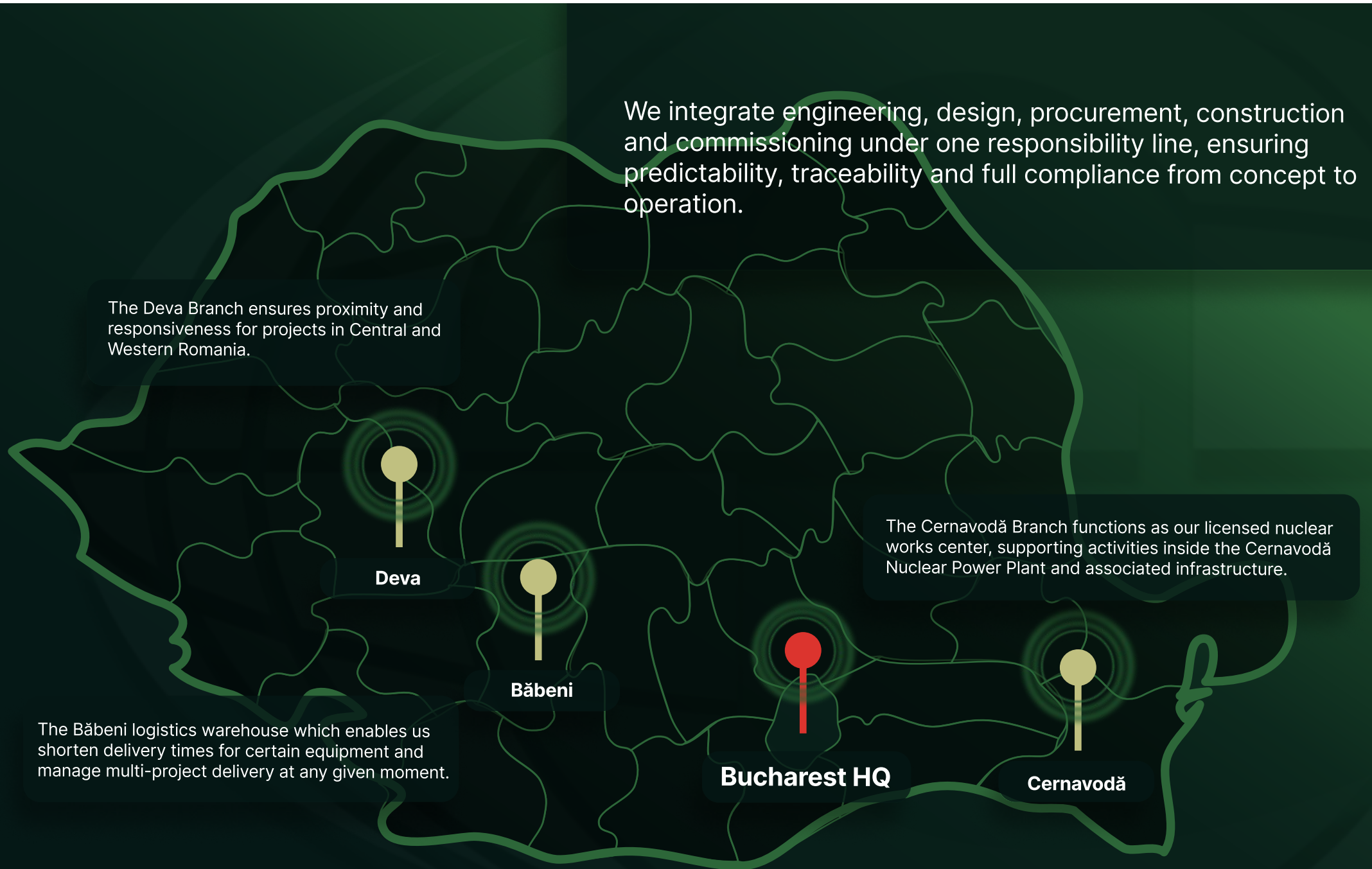
Băbeni

The Băbeni logistics warehouse which enables us shorten delivery times for certain equipment and manage multi-project delivery at any given moment.

Bucharest HQ

The Cernavodă Branch functions as our licensed nuclear works center, supporting activities inside the Cernavodă Nuclear Power Plant and associated infrastructure.

Cernavodă





## Equipment Supply



We provide certified electrical equipment and components through established partnerships and exclusive agreements, ensuring fast delivery, full compatibility and long-term support.

## Turnkey Energy



We design and execute high-voltage substations up to 400kV and automation systems, delivering fully integrated EPC solutions with predictable results and complete technical traceability.

## Nuclear Grade Works



We perform licensed electrical installations in nuclear and high-regulation facilities, combining CNCAN compliance, documented precision and proven execution reliability.

Our Work Covers The Entire Process From Design And Procurement To Execution, Testing, And Commissioning All Under A Single Management And Quality Framework.



## Authority

ISO Standard	State Approval	ANCEX Ministry of Foreign Affairs Department for Control of Exports	NATO - OTAN	MApN, SRI, MoD National Intelligence Service	ANRE National Authority for Energy Regulation
ISO 9001 ISO 14001 ISO 45001 ISO 27001	Commercial, logistics and production activities of military products	Military equipment and dual use goods	AQAP 2110: Quality Assurance in Design, Development and Manufacturing Certification	Authorized to access and work with classified information	Design, Supply, Execution and Testing 0.4kV to 400kV

## Authority

INSEMEX GANex	IGSU Romanian General Inspectorate for Emergency Situations	CNCAN National Council for Control of Nuclear Activity	ANPM National Agency for Environmental Protection
Services in technical installations in areas with danger of explosion, according to NEx Standard 01-06 / 2007	Design and installation of systems, signaling, alarming and alerting installations in case of fire Design and installation of fire extinguishing systems, except for those containing certain fluorinated greenhouse gases	<ul style="list-style-type: none"> <li>• <i>NMC-05</i>: Design services for nuclear installations</li> <li>• <i>NMC-07</i>: Product manufacturing and providing services for nuclear facilities</li> <li>• <i>NMC-08</i>: Construction and installation of electrical systems in nuclear field</li> </ul> Services for the design of physical protection systems in the nuclear field Works and Services intended for physical protection in the nuclear field	Collection, Transport, Storage, Treatment and Disposal of hazardous and non - hazardous waste

We hold one of the most extensive portfolios of certifications and licenses in Romania's energy EPC sector — a recognition of our capacity to deliver under the strictest technical, safety and security standards.



# Electrical Equipment Supply & Commissioning

Certified systems and components for high-voltage and high-regulation environments.

We supply, integrate and commission electrical infrastructure equipment for substations, industrial and nuclear facilities ensuring technical compliance, interoperability and reliability from concept to operation.



## We Integrate Global Technology Into Local Expertise



GE VERNOVA



ANKARA SERAMİK

SIEMENS  
ENERGY



Schneider  
Electric



KONČAR

NOJA POWER®



Hitachi Energy

Solution  
Partner  
REYROLLE

Solution  
Partner  
SIPROTEC

Solution  
Partner  
SICAM

SIEMENS



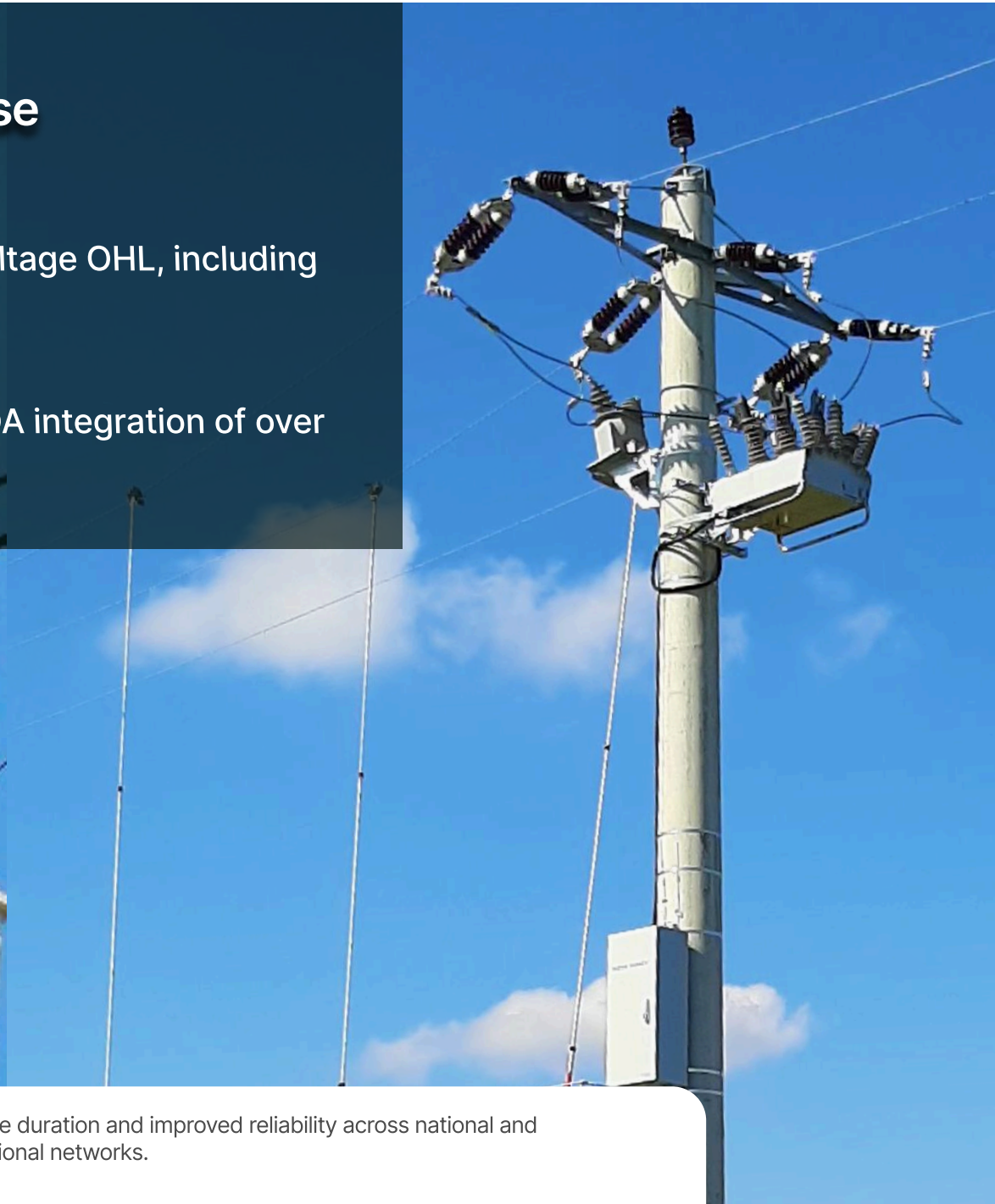
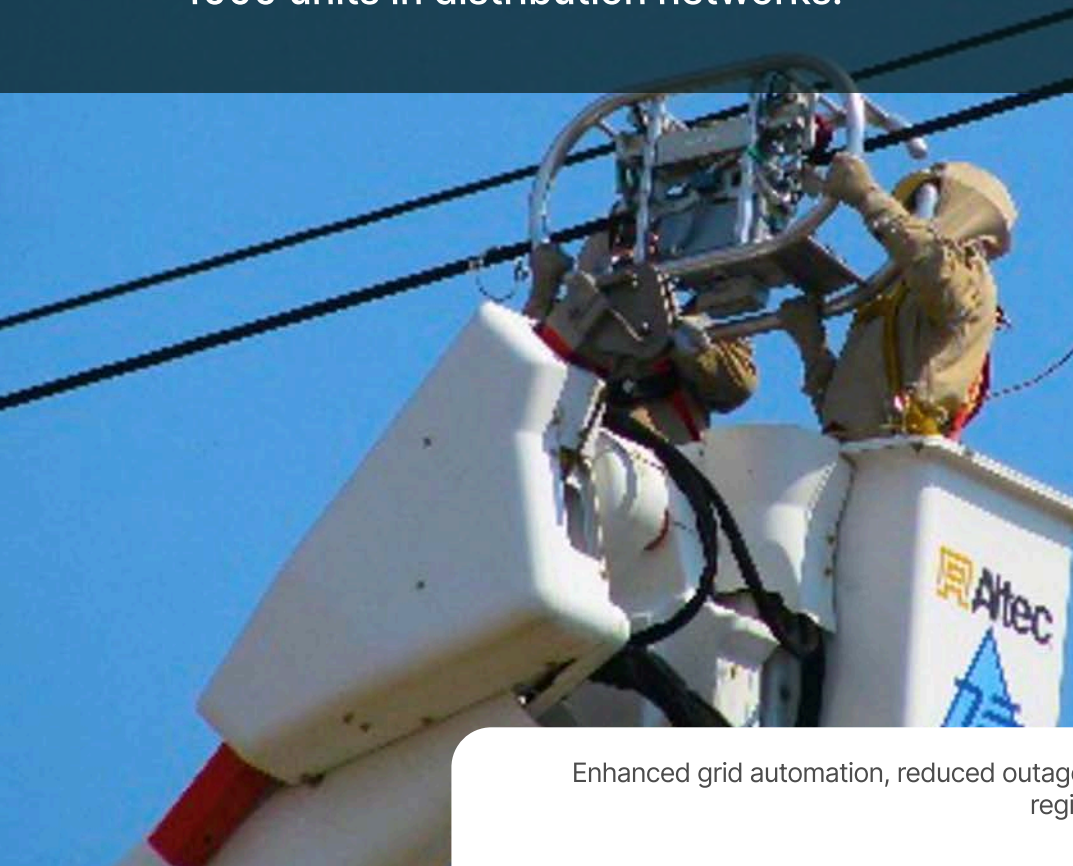
## Grid Automation & Network Expertise

### Overhead Line Expertise

Evaluation and technical assessment of high-voltage OHL, including condition and life-time analysis.

### Automatic Circuit Reclosers Integration

Supply, installation, parameterization and SCADA integration of over 1000 units in distribution networks.



Enhanced grid automation, reduced outage duration and improved reliability across national and regional networks.



## EQUIPMENT

### Power Transformers Delivery, Commissioning, And On-Site Refurbishment

- Engineering, design, equipment installation and commissioning
- AVR and MDU replacement with SCADA integration
- Parametrization and tests
- Training





EQUIPMENT

# Power Transformers Expertise, Assessment, Preventive And Corrective Maintenance

- Expert assessment of the transformers condition and life assessment
- Special electrical measurements and oil analysis and
- Online oil – paper insulation treatment and rehabilitation / depolarization



*Chemical- physical  
filtration unit*

*Under vacuum degassing  
and dehydration unit*

*Chemical treatment unit*

*Interconnection unit*



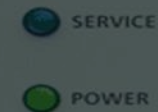
EQUIPMENT

## Power Transformers Safety And Monitoring - Condition Monitoring

Offline and on-line complete analyses of power transformers, including dissolved gases in the insulating oil:

- Retrofit and new power transformers
- Design and installation of integrated monitoring systems for the DGA of insulation of power transformers
- Monitoring of the transformers in real time, from anywhere in the power plant
- Diagnosis and prevention of failures
- Training

GE Energy  
**TRANSFIX  
DGA 500**  
Transformer  
Gas Analyser





EQUIPMENT

# Power Transformers Safety And Monitoring - Fire & Explosion Protection

- Retrofit or new power transformers
- Construction and assembly works
- Installation
- Parametrization and configuration
- Commissioning
- Testing
- Training



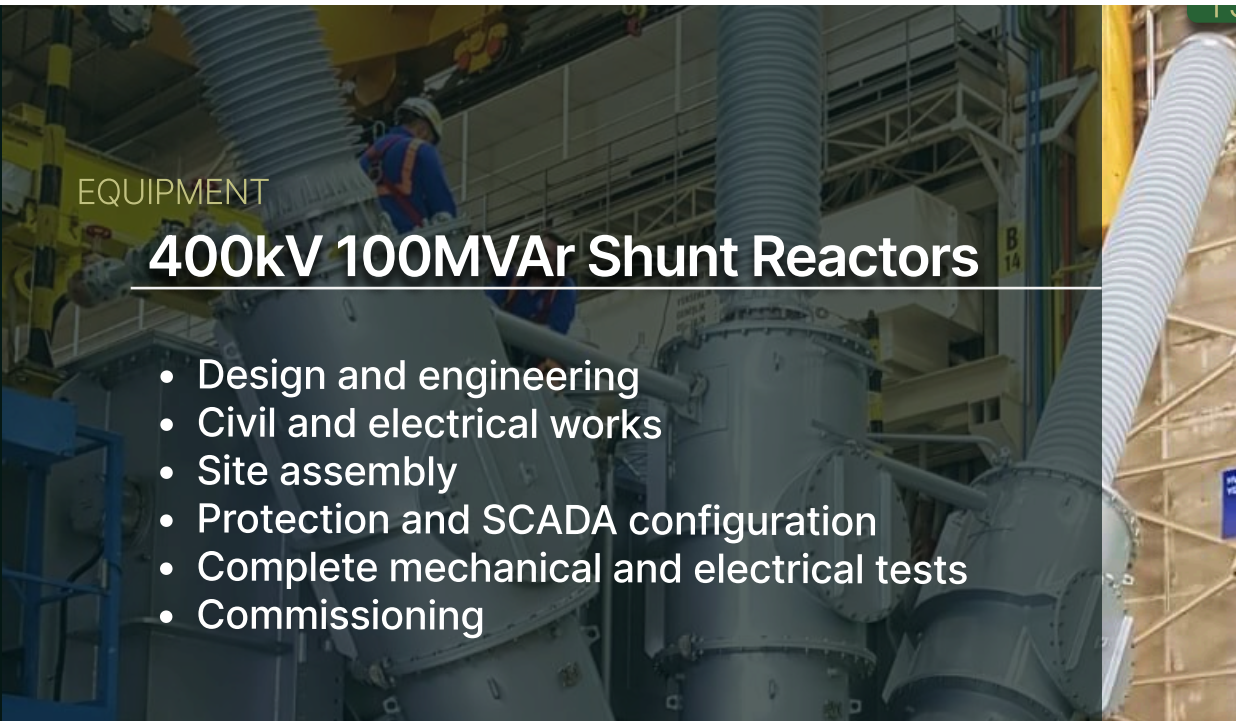
Enhanced Protection, Continuous Monitoring And Safer Operation Of Critical Transformer Assets.



EQUIPMENT

## 400kV 100MVar Shunt Reactors

- Design and engineering
- Civil and electrical works
- Site assembly
- Protection and SCADA configuration
- Complete mechanical and electrical tests
- Commissioning



Improved Reliability And Digitalized The Control And Protection Systems Within The National Transmission Network



TSO

## Replacement Of AT3 @ Transelectrica S/S 400/220 KV Portile De Fier

### Romania's Highest-Capacity Three-Phase Autotransformer (500 MVA)

- Design and engineering
- Supply
- Civil and electrical works
- Site assembly and commissioning
- Protection and SCADA configuration
- Complete mechanical and electrical tests
- Clients personnel training



Restored High-Capacity Interconnection At One Of The Country's Most Critical Transmission Substations.



# Turnkey Energy Infrastructure

We deliver complete execution for new builds and modernization projects, combining engineering, procurement, construction, automation and commissioning under one accountable scope.

Our expertise ensures continuity, technical compliance, and reliability across generation, transmission and distribution assets up to 400 kV.



DSO

## DELGAZ Grid 110/20kV Substations Refurbishment (E.U. Funding)

- Design, detailed engineering and as built
- Civil and electrical works
- Site assembly
- Protection and SCADA configuration
- Complete mechanical and electrical tests
- Commissioning and training

Phase I

Phase II

Vetrisoiaia

Falciu

Murgeni

Stanilesti

Husi

Gorban

Pascani

Hirlau



Extended Asset Life And Improved Operational Reliability Across Regional Distribution Infrastructure.



MV Substation

## Medium Voltage Substations Rehabilitation

- Shunt reactors installing and commissioning
- Installing and commissioning of Single Phase Air Core Dry type Shunt Reactors
- Installing and commissioning GIS Switchgear for Secondary Distribution
- MV Bays rehabilitation
- Replacing over 600 pcs. old Oil filled MV CB's with Vacuum CB's
- Remodeling the bus-bars
- Design, tests and commissioning



Improved Reliability And Digitalized The Control And Protection Systems Within The National Transmission Network



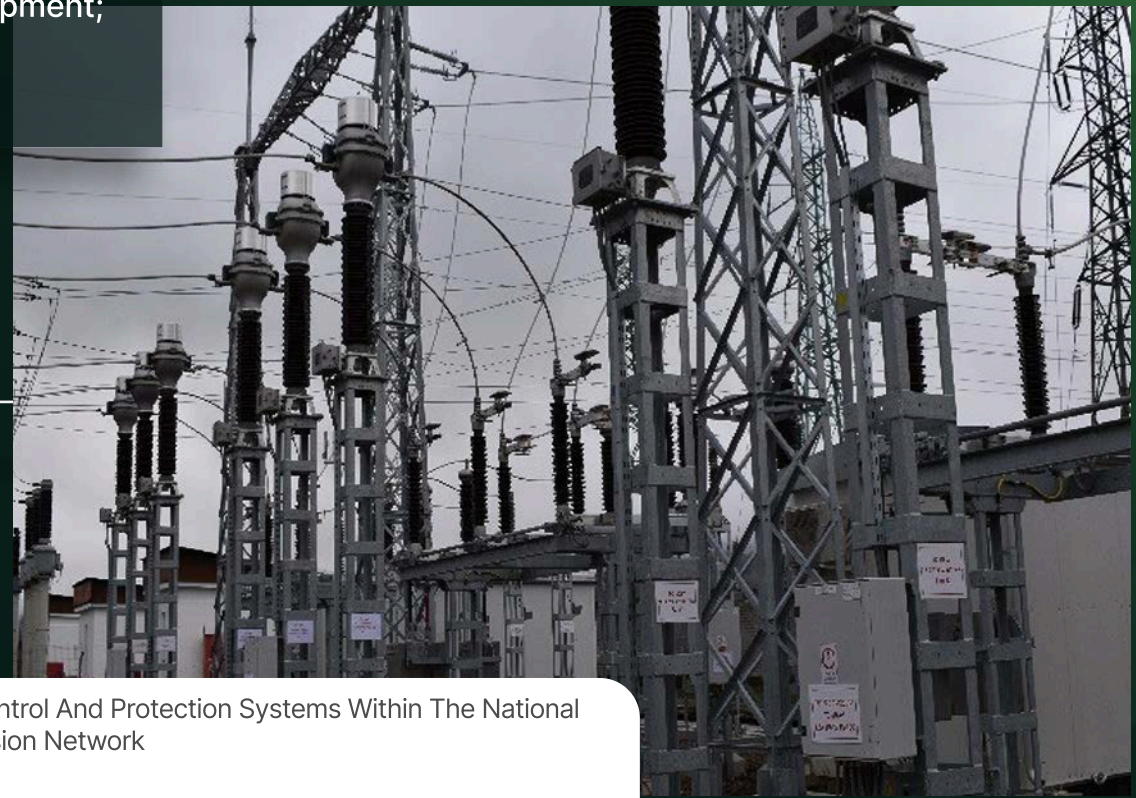
TSO

## Transelectrica 220/110kV IAZ Substation

- Civil, construction and assembly works;
- Installation, tests and commissioning of equipment;
- Training.

TSO

## Transelectrica 220/110/20 KV Baru Mare



Improved Reliability And Digitalized The Control And Protection Systems Within The National Transmission Network



TSO

## Transelectrica 400/220/110 KV Resita Substation

- Design, detailed engineering and as built
- Civil, construction and assembly works
- Installation, tests and commissioning of equipment
- Training for client's personnel

Reinstated operational safety and performance in one of the key nodes of the Western Transmission Network.

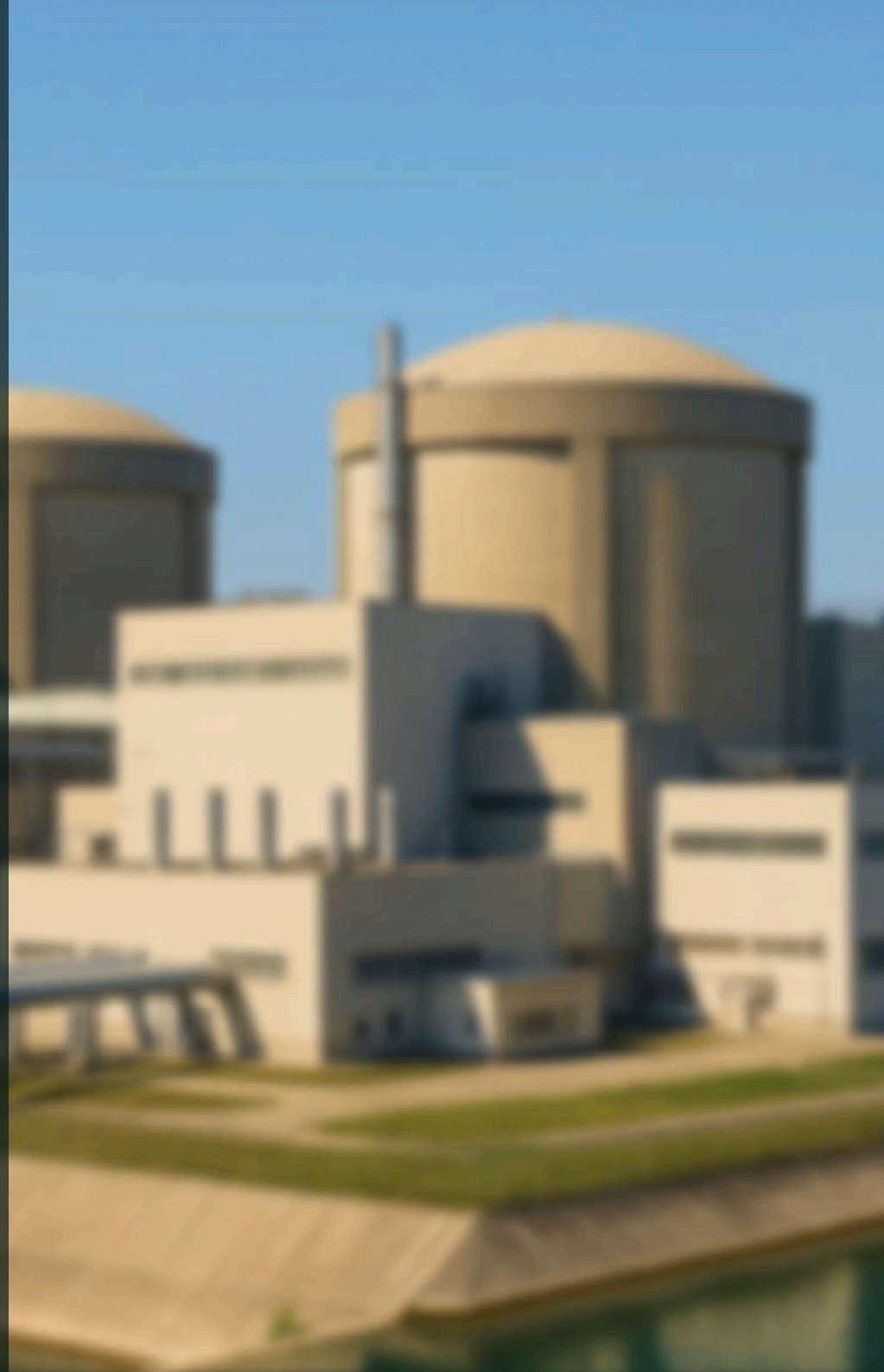


# Nuclear-Grade Works & High-Regulation Environments

Licensed engineering, construction and commissioning within the most demanding safety regimes.

We are authorized by CNCAN for design, manufacturing, construction and service in the nuclear field — executing projects under seismic, radiological and classified constraints.

Our teams deliver precision, documentation compliance and reliability across all nuclear-critical systems.





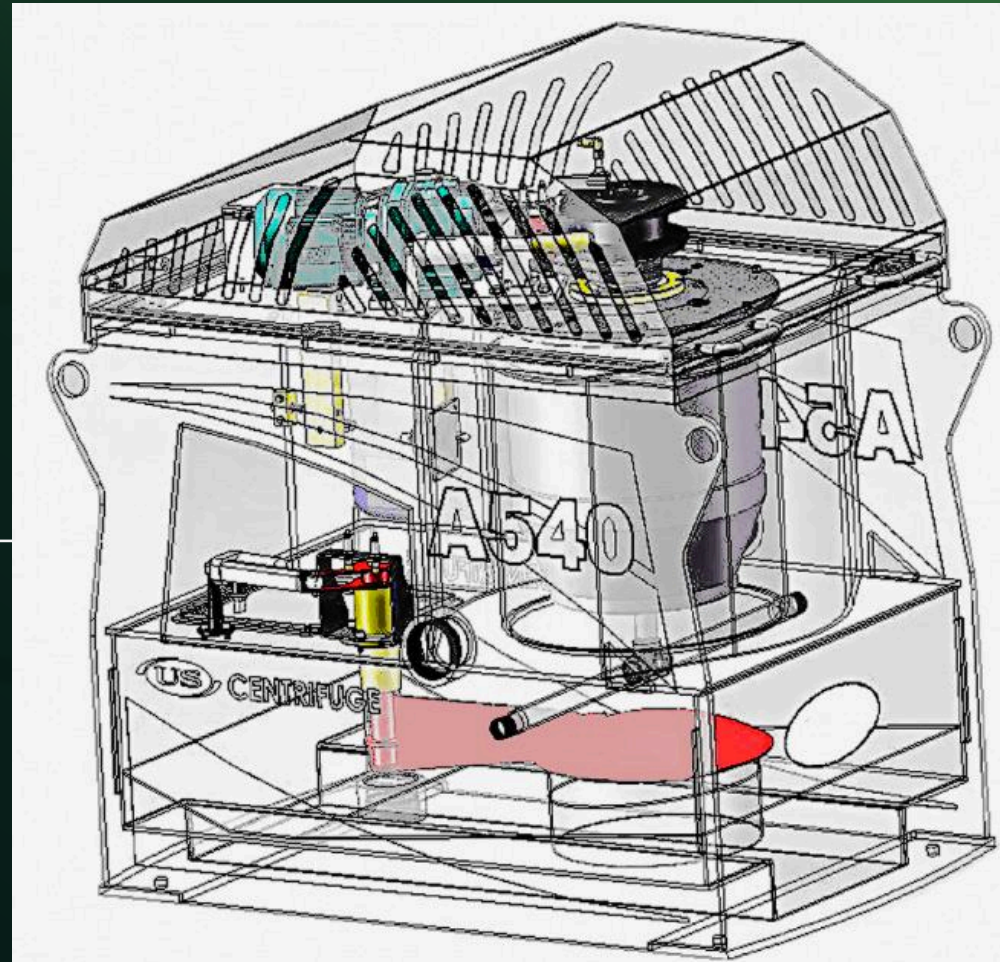
**Replacement Of Expansion Joints  
Units 1 & 2 Cernavodă NPP**

Supply under Class 4 manufacturing conditions, technical assistance for installation and commissioning and personnel training.



**High-Velocity Centrifuge  
Nuclear Fuel Factory**

Design, integration, commissioning and testing of a 2.500G centrifuge for uranium removal from process water, including maintenance and operator training.





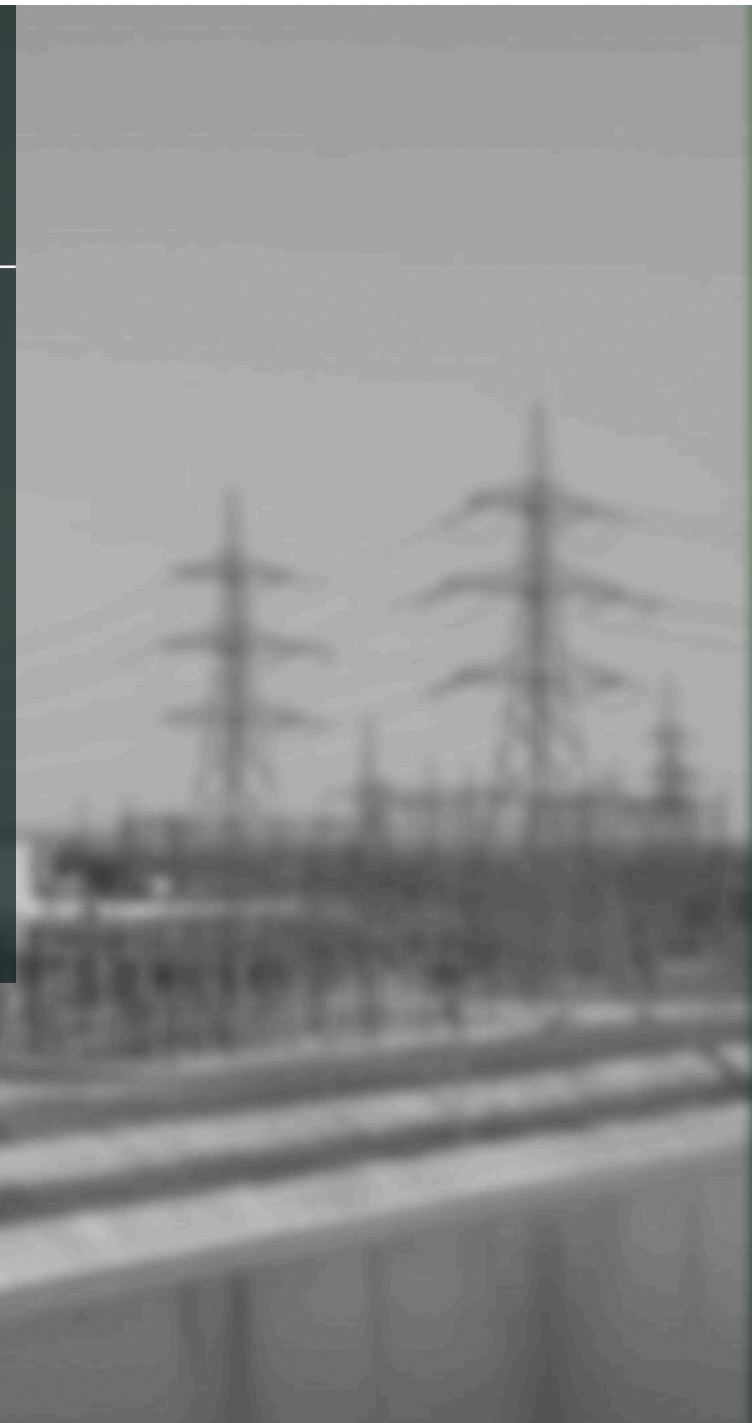
## NUCLEAR

## Engineering, Design And Technical Analysis For Equipment And Systems Of The Nuclear Power Plants

Design and Engineering support for Cernavoda NPP for electrical and automation systems; Condition assessment and remaining life evaluations for electrical equipment and systems (e.g. all power transformers);

**Our work includes**

- Project design (including seismic qualification calculations)
- Engineering evaluations and calculations
- Life assessment studies
- Correlation of protections





## NUCLEAR

### Level 4 Emergency System Cernavodă Nuclear Power Plant

Design including seismic qualification, installation, configuration, commissioning, training.

- 2×1675 kVA
- 2×110 kVA diesel generators
- mobile pump
- 2x mobile 0.4/6 kV transformer stations



### Backup Power For Critical Consumers (U0)

Ensures uninterrupted power supply to critical consumers (U0) in the event of total loss of supply from the National Power Grid.

- 1×1800 kW diesel generator.
- Design
- Construction, installation & assembly
- Parametrization & configuration
- Commissioning
- Personnel training
- 5 years maintenance period



NUCLEAR

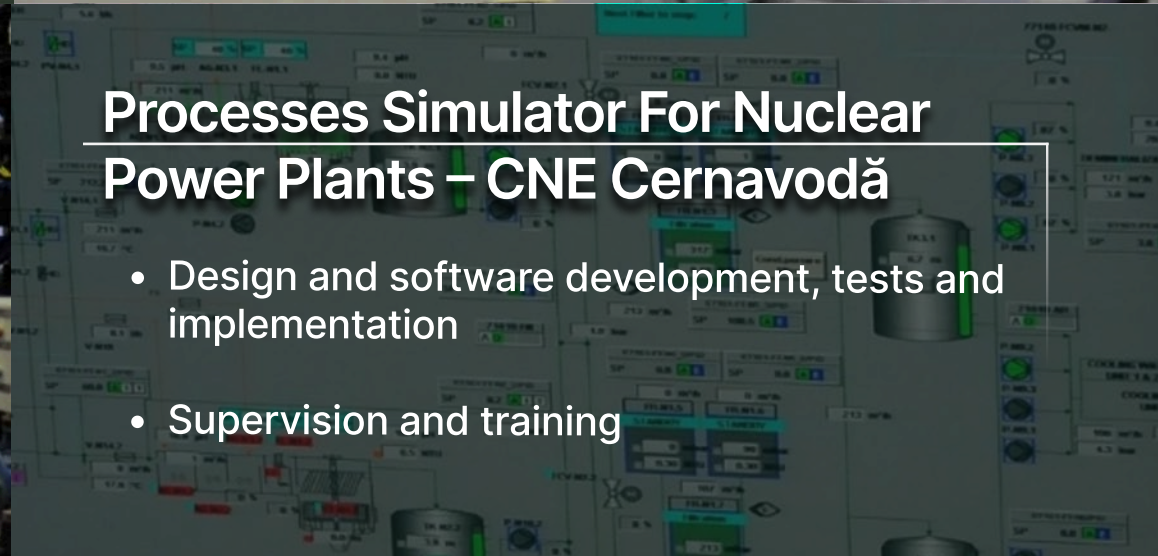
## Automation And Rehabilitation Of The WTP For CNE Cernavodă Nuclear Power Plant

- Design, equipment supply, construction, installation and assembly works, commissioning and tests
- Design, execution and delivery of LV switchboards, SCADA system, MCC, Instrumentation cabinets



## Processes Simulator For Nuclear Power Plants – CNE Cernavodă

- Design and software development, tests and implementation
- Supervision and training





NUCLEAR

## Nuclear Seismic Protection – Highcriticality System For Unit 2 Reactor Safety (CNE Cernavoda)

- Independent seismic monitoring for nuclear emergency shutdown
- Installed in radiologically restricted & safety-critical zones
- IEEE 344-qualified DBE-B instrumentation (Sonsonics platform)
- Redundant acquisition & triggering logic (2-out-of-4) at 0.1g threshold
- Commissioning support under strict nuclear safety protocols

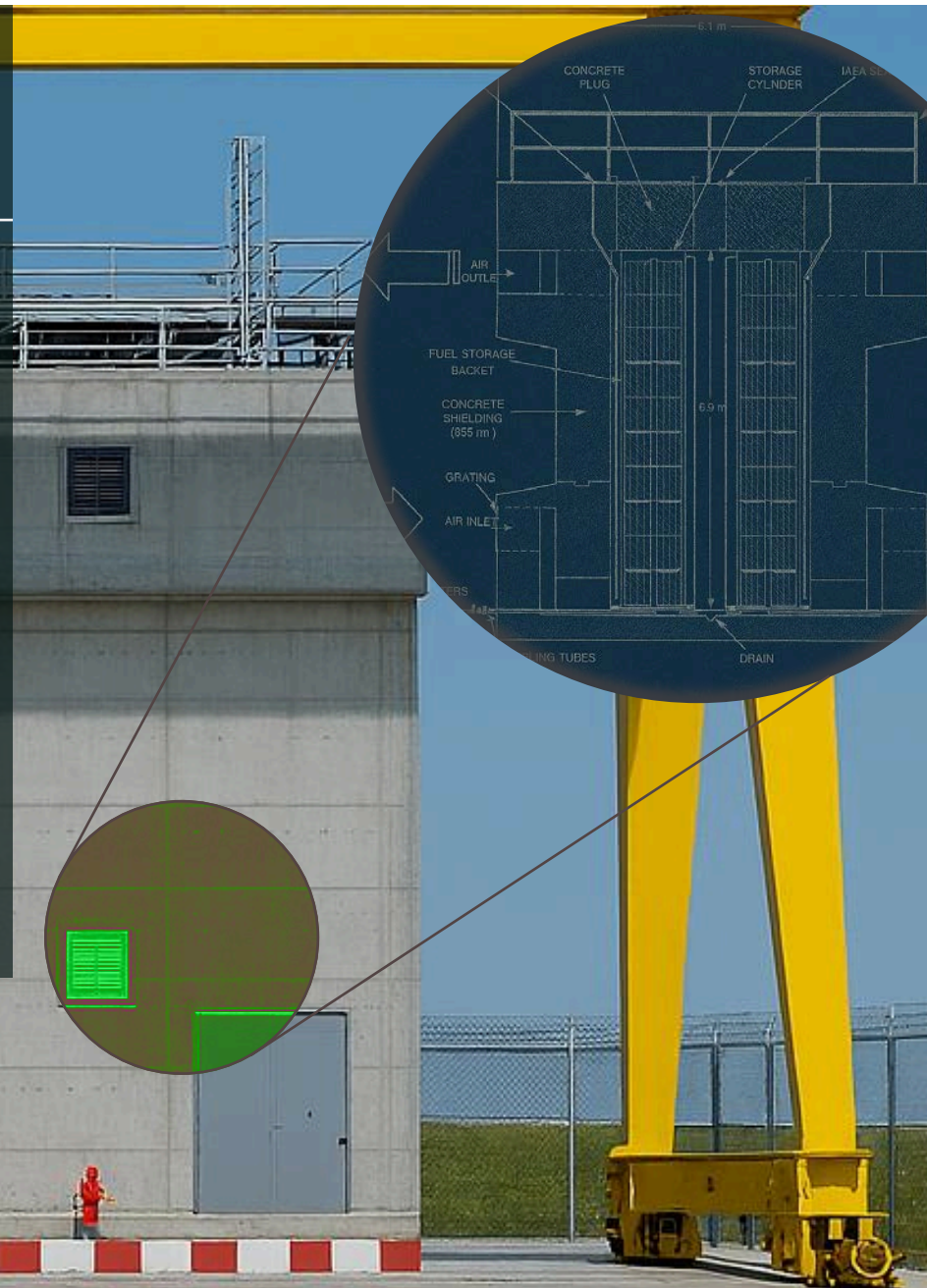




NUCLEAR

# Electrical Systems For MACSTOR200 Storage Units - CNE Cernavodă – Spent Nuclear Fuel Interim Storage Facility (DICA)

- Electrical works for MACSTOR200 modules 12–17 (Category A importance)
- Power supply, internal distribution & grounding systems
- Safety systems: lightning protection, controlled access, secure lighting
- Cabling in nuclear-restricted zones, under CNCAN oversight
- Execution completed ahead of schedule, in high-regulation environment





NUCLEAR

## Replacement Of 2 Units 24/415kV 440 MVA Main Output Transformers For Cernavoda NPP Unit 1 (Some Of The Biggest Three-Phase Power Transformers In Romania)

- Removal of old transformers from transformer bays and transport to final storage area
- Site pulling of new equipment to transformer bays, assembly and commissioning
- Mechanical and electrical works
- Connections to the existing protections and command room
- Reinstallation of the On-Line DGA monitoring Systems
- Reinstallation of the Sergi Fire Protection Systems
- Reinstallation of the fire detection systems
- Supply of new oil and MV medium flexible connections
- Complete SAT and Commissioning oil and electrical tests

**Total execution time: 24 days**



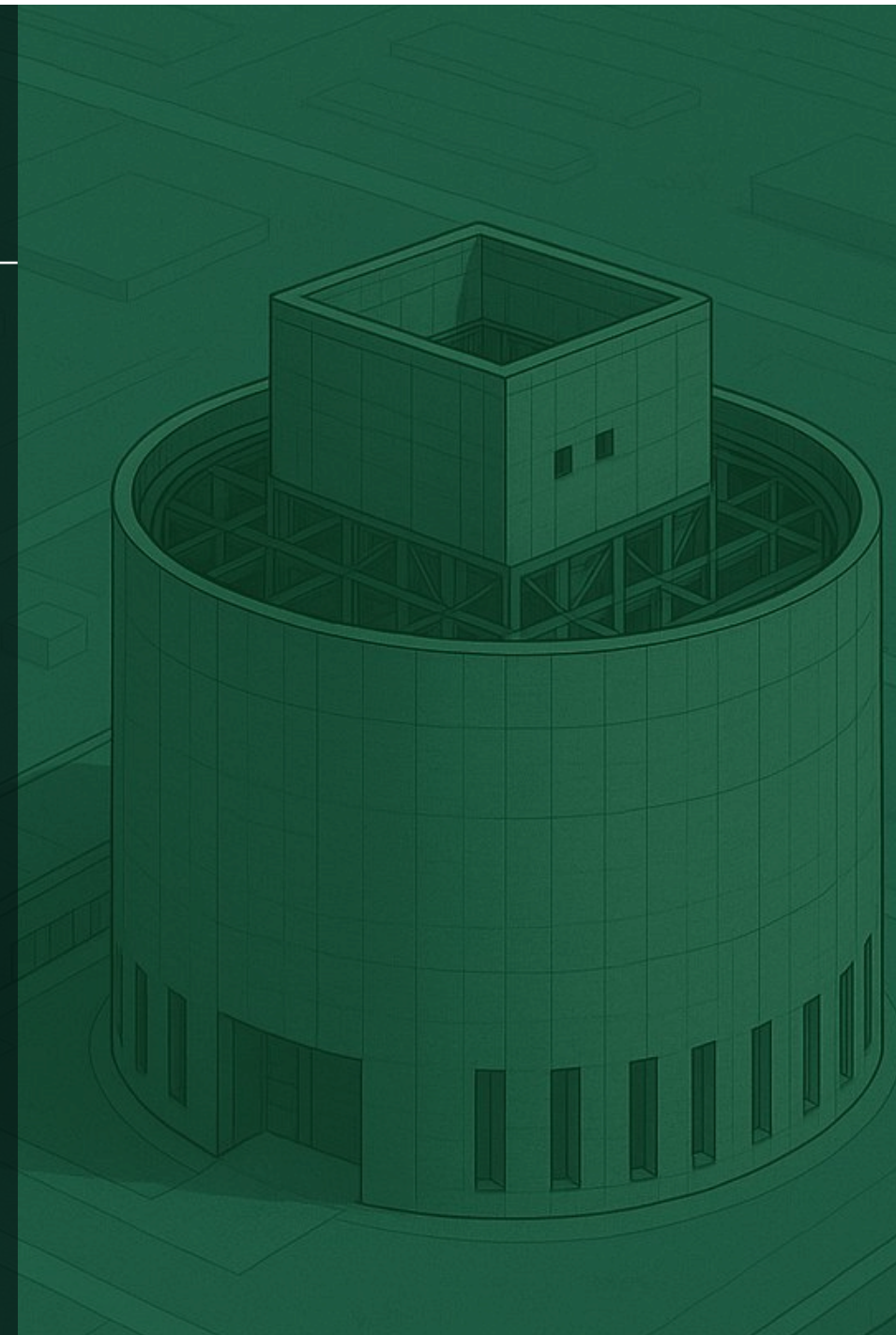


NUCLEAR

## Electrical Works For CNE Cernavodă Unit 5 Project

*Unit 5 is a dedicated infrastructure development within the Cernavodă NPP platform, designed to expand and integrate the site's electrical and support systems.*

- Execution of electrical systems within the Unit 5 construction site, under the Nuclearelectrica development program.
- Design verification, installation, and integration of temporary and permanent electrical infrastructure for construction and commissioning phases.
- Automation of all support systems, ensuring functional integration and operational reliability across the site.
- Power supply, distribution and grounding systems for site operations, equipment, and auxiliary facilities.
- Integration of monitoring, protection, and control systems in accordance with CNCAN nuclear safety requirements.
- Works performed in collaboration with the project's general contractor and under strict regulatory and nuclear-safety supervision.





## NUCLEAR

### Exclusive Supplier Of Oils & Lubricants For Cernavodă Nuclear Power Plant

#### Over 15 Years Of Continuous Exclusive Supply

Energotech S.A. is the sole supplier of oils and greases for all critical lubrication applications within Cernavodă Nuclear Power Plant, covering:

- Steam and auxiliary turbines
- Gearboxes and drive systems
- Hydraulic systems
- Rotating and high-load mechanical equipment
- Auxiliary and balance-of-plant systems

Our mandate covers the complete range of industrial and nuclear-adapted lubricants required to ensure operational continuity, mechanical integrity and long-term asset reliability.

**Our capability is reinforced by strategic sourcing partnerships with world-class producers:**



# Your Energy, Our Technology

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Turnkey Energy, Nuclear Grade  
Works and Equipment Supply

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