

## ISPE in Brief

**Company name:**

**ISPE** - Institute for Studies and Power Engineering

**Foundation date:**

March 1, 1949

**Chairman and C.E.O.:**

Ioan Dan Gheorghiu, Ph. D. (Eng)

**Head office:**

1-3 Lacul Tei Blvd, 020371 Bucharest, Romania

**Timisoara Subsidiary:**

18-20 Gh. Lazăr Street, 300081 Timișoara, Romania

**Register of Commerce:** J40/5731/1996

**VAT n<sup>o</sup>:** RO8630885

**Integrated Management System**

The company is certified by TÜV Süddeutschland for the application of the integrated management system Quality, Environment, Health and Security of Labour according to ISO 9001, ISO 14001 and OHSAS 18001.

ISPE acts on the market as:

- investor
- consultant
- EPC Contractor

**Business Areas**

Based on our employees' capabilities we deliver complex and integrated solutions (technically, financially and commercially) within business areas like:

- **Energy**
  - Power and Heat Generation
  - Renewable Energy Sources
  - Power Transmission and Distribution
- **Environment**
- **Infrastructure. Civil Works**
- **Industry**

**Scope of Services**

A wide range of services and expertise helping you tackle energy and environmental issues. ISPE offers consultancy and engineering services to public and private sector clients, in Romania and abroad.

- *Technical Consulting*
- *Financial and Institutional Consulting*
- *Project Management*
- *Basic and Detail Engineering*
- *Other Engineering Services*

**References in Romania**

*Power Systems*

The entire Romanian National Power System (NPS) was practically developed based on ISPE projects

- Developing strategies, energy models and forecasting studies for the NPS
- Energy policy support to governmental authorities and regulators
- Assessing security of energy supply, of resources, reserves and costs-benefits

*Power and Heat Generation*

- 15,000 MW installed in the Thermal Power Plants or Combined Heat and Power Plants, firing fossil fuels
- Cernavoda Nuclear Power Plant – 2x700 MW installed in the conventional side
- Consulting, basic and detail engineering for retrofitting programs for more than 50% of the generation capacities (e.g. Complexul Energetic Rovinari, Complexul Energetic Turceni, Complexul Energetic Craiova, RAAN Drobeta Turnu Severin, Deva, Bucuresti Vest, Paroseni, etc.)
- OMV Petrom Romania – Consulting services for a new CCPP 867 MW in Ploiesti – Romania
- GE & Metca (as General Contractor) of CCPP 867 MW in OMV – Basic and Detail Engineering for Civil and Architectural Works
- e.on Kraftwerke – Consulting services for installing a new unit 700 MW in Romania (under consortium with ERM)
- Enel Production Romania – Permitting documentation for a new TPP 800 MW in Galati
- Wind Power in Romania - Studies for connection to the grid for more than 22000 MW
- Wind Power in Romania - complete permitting documentation and engineering services for more than 6000 MW

*District Heating Systems*

- Developing urban heating strategies for more than 40 Romanian towns
- Consulting, basic and detailed engineering for upgrading and retrofitting programs for heat generation, transport and distribution systems all over Romania for cities with an average of 20,000 up to 2mil. inhabitants
- 258 district heating systems, for 2.5 million conventional flats, more than 16500 km transport & distribution network

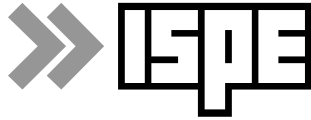


*Power Transmission and Distribution*

- 150 HV substations (110-750 kV), with an installed power of about 70,000 MVA
- 22,000 km Overhead Transmission Lines (110 kV, 220 kV, 400 kV, and 750 kV)
- Consulting, basic and detail engineering for upgrading and retrofitting programs for more than 60% of the existing OHTLs and HV substations within the NPS

*Environmental Protection*

- Studies and analyses for CCS technologies implementation
- National strategic support through climate change scenarios and environmental planning
- Assessing present situation and forecasting future emissions scenarios; inventories and projection of GHG
- Cost effectiveness, benefits analyses, identifying appropriate financial mechanisms and schemes (e.g. JI, CDM, etc.)
- Practical support for implementing ETS, for developing allocation methodology
- EIA Studies, IPPC documentation
- Water and waste water management systems, air quality systems and emissions monitoring systems
- Integrated engineering services for environmental installations (FGD plants, low NOx burners, ash & slag removal and storage systems) implementation for Complexul Energetic Turceni, Rovinari and Craiova, Paroseni CHPP, Electrocentrale Deva TPP, Termica Suceava CHPP, RAAN ROMAG Termo, COLTERM Timișoara, etc.



- Implementation of 2006/21/EC Directive regarding waste management in the mining industry
- Strategy and action plan for the rehabilitation of sites historically polluted
- Mine closure – basic design for post-closure monitoring at mining sites with finalised closing actions
- Mining sites closure and cleaning
- Ecological closure of phosphorous-ammonia slurry within a chemical factory
- Cleaning and de-pollution of Zlatna industrial area
- Implementation of the ecological technology in dense slurry for the ash and slag removal from Turceni TPP, Rovinari TPP, Craiova II CHPP, Paroşeni CHPP, Doiceşti TPP, Braşov CHPP, Deva TPP

#### **Industry**

- Providing consultancy and engineering services for developing integrated solutions and solve energy and environmental issues for several industries (e.g. Cement, Petrochemistry, Metallurgy, Food and Beverage industry, Textile industry, etc.)

#### **Infrastructure. Municipal services-Civil works**

- FS for 15 county hospitals modernisation
- Integrated engineering services for Buzău maternity hospital
- Innovation 2008 "Passive Houses adequate to Romanian climate conditions" - Client: AMCSIT/Ministry of Education, Research and Innovation
- PNCD I and II "Energy for a clean city - EPOC" - Client: CNMP/ Ministry of Education, Research and Innovation
- IEE 2006 "Establishment of a cooperation network for Passive Houses promoters - PASS-NET" - Client: EACI
- Thermal refurbishment of the National Sport College CETATE DEVA and of several blocks of flat in Bucharest
- Intelligent buildings - Air Traffic Control Centres - consulting, basic and detail engineering
- Development and modernisation of water supplying systems, sewerage and rainfall network systems together with waste water pumping stations retrofitting for more than 15 cities in Romania
- Integrated engineering for intelligent buildings - Air Traffic Control Centers - Bucureşti, Arad and Constanţa
- Waste management system optimisation - prevention, recycling, transport and disposal
- Waste to energy – implementing an incinerating plant within Sud Timișoara TP – Client: COLTERM Timișoara
- FS for waste collecting, transport, transfer stations and economic analysis in different counties
- FS for non-adequate landfills closure
- River borders improvement

#### **References Abroad**

##### **Power Systems**

- Energy policy support to governmental authorities and regulators in Nigeria and Jordan

##### **Power and Heat Generation**

- Thermal Power Plants summing more than 900 MW installed in: China, Syria, India, Turkey, Egypt
- Hai Phong TPP 2x300 MW Vietnam – Consulting services (together with ESBI)

##### **Power Transmission and Distribution**

- 22 mid and high voltage substations in Morocco, Turkey, Egypt, Bangladesh, Nigeria, Pakistan, Croatia, Syria, Iraq, India
- 7000 km OHTLs (150, 220, 400 kV) in Egypt, Iran, Jordan, Cyprus, Yemen, Peru, Algeria, Malaysia, Syria, Lebanon, Iraq, the Philippines

##### **District Heating Systems**

- District heating systems in Germany and Pakistan

##### **Waste Water Treatment Stations**

- Germany and the Czech Republic

##### **Civil Engineering**

- Steel structures engineering in co-operation with foreign firms in Germany, Austria and Greece

##### **Cement Industry**

- Lafarge Jordan Factories - Petcoke Conversion Project

#### **Our Partner Companies and Clients:**

**Romanian:** "Apele Romane" National Water Management Authority, ANPM – National Environmental Protection Agency, ANRE - National Regulatory Authority for Energy and Heat, ANRM – National Mineral Resources Agency, ANRSGC - National Regulatory Authority for Public Services, Arcelor – Mittal, Craiova, Rovinari and Turceni Energy Complexes, COGEN Romania, Conversmin, District Heating Companies, ELCEN Bucharest, Electrica, Electrocentrale Deva, Electromontaj, Electronum, Energoconstructia, General Turbo, Grivco, Hidroconstructia, Hidroelectrica, Universities & Research Institutes, ICEMENERG, ICIM, ICPET, INHGA, Interagro, Lukoil Romania, Nuclearelectrica, OMV PETROM, OPCOM - Operator of the Romanian Power Market, Petrodesign, Public & Local Administration, RAAN Drobeta Turnu Severin, RADET Bucharest, ROMATSA - National Authority for Air Traffic Control Services, Romelectro, Romenergo, SAEM, Tecnoservice, Termoelectrica, Transelectrica, Water management companies a.s.o.

**Foreign:** ABB, Austrian Energy& Environment, AECL Canada, ALSTOM, Ansaldo Energia Italy, Areva, Babcock Borsig Service Germany, Black & Veatch, CESI Italia, CEZ, CNIM France, Deloitte, Doosan, Gaz de France - SUEZ, Ecolochem, Emerson Process Control, ENEL, e.on, Ernst Bassler Switzerland, ESBI Ireland, EVA Austria, FLS Miljo Denmark, Fichtner, Fortum Engineering Finland, Foster Wheeler, Gamessa Spain, GE-EGI, GE, Global Intl. Russia, Hitachi Power Europe, Honeywell, Hyundai Korea, Iberdrola, Idom Spain, Inabensa Spain, Intelcan Canada, Itochu Japan, J-Power Japan, GE Jennbacher Austria, Kanematsu Japan, Kawasaki Japan, Kema, KHNP Korea, Lafarge, Lahmeyer Intl. Germany, Marubeni Japan, Mechel, Metka Greece, Mitsubishi Japan, Mitsui Japan, MVV, Nordex Germany, Nuovo Pignone GE Italy, Parsons USA, PB Power UK, Poyry, Ramboll, RWE Germany, Schneider France, SES Tlmace Slovak Republic, Siemens, Skoda Czech Republic, SOCOIN Spain, Sojitz Japan, Soluzionia Spain, SPIG Italy, STE Italy, Steinmuller Germany, Sumitomo Japan, SVT Brandschutz Germany, Tebodin Holland, TEPCO, TEPCO Japan, Toshiba Japan, Turbomach Switzerland, Turbomeca France, TUV Germany, Union Fenosa Spain, VAMED Austria, Vatenfall, Verbund Austria, WestJec Japan, Yokogawa.

#### **Membership**

ISPE is member of more than 25 national and international associations and societies, such as: WEC, CIGRE, ENER, EUROHEAT & POWER, JRC, VGB, ARIC as FIDIC member, SIER, COGEN, CROMB, ARA, etc.

ISPE is also an active member of the ZEP (Zero Emission Fossil Fuel Power Plants) Advisory Council within EU Technology Platform.

#### **For further information:**

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