



ENERGOPROJEKT-KATOWICE SA

Effectiveness • Potential • Knowledge



• ENERGOPROJEKT-KATOWICE SA

GRUPA EPK

Leader of complete designing and advisory service

One of the largest design and engineering companies in Poland.

Partner **cooperating with the world's largest companies** in the domestic and international markets.

A company with an established **leadership position in the energy sector**.

Independent joint-stock company (employee ownership).

Experienced engineering and management **staff**.

Focus on **Customer goals**.

Comprehensive investment service from concept to completion.

Presence in projects related to the country's **energy transition and modern energy sources**.



74 years
consistent development



Over a hundred
power and thermal units



More than one million
project items developed



Over 30 000 MW
Total capacity of designed units



References
in all branches of industry



Solutions in line
with the goals of Sustainable
Development





ENERGOPROJEKT-KATOWICE SA
Headquarters: **Katowice**
250 specialists



ENERGOPROJEKT-WARSZAWA
Location: **Warsaw**
Industry: **Hydrotechnical**
30 specialists



K1 Projekt
Location: **Siedlce**
Industry: **Steel Structures**
35 specialists



EPK PV1-3
Location: **Katowice**
Industry: **PV Farm Design**



TD Energo
Lokalizacja: **Cracow**
Industry: **Transmission and Distribution**
30 specialists



Our value are People!



Technical, economic and legal advisors



Automation, telecommunications and programming specialists



Specialists in architecture, construction, sanitary, HVAC, fire and hydraulic engineering systems

95 specialists in subsidiaries!

More than 250 specialists of various industries!

70 engineers with industry qualifications!



Specialists in environmental protection and RES



Electricians, transmission and distribution line specialists



Specialists in processes, mechanics, pipelines, hydropower, water and wastewater treatment



ENERGOPROJEKT-KATOWICE SA

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Our services and business areas



Power plants, combined heat and power plants, industrial thermal power plants:

- Coal technologies;
- Natural gas technologies;
- Liquid fuel technologies (LFO, HFO);
- Biomass i WTE;
- Hydropower;
- Photovoltaics;
- Offshore wind farms;
- Nuclear energy.

Transmission and distribution networks.



Kluczowe referencje

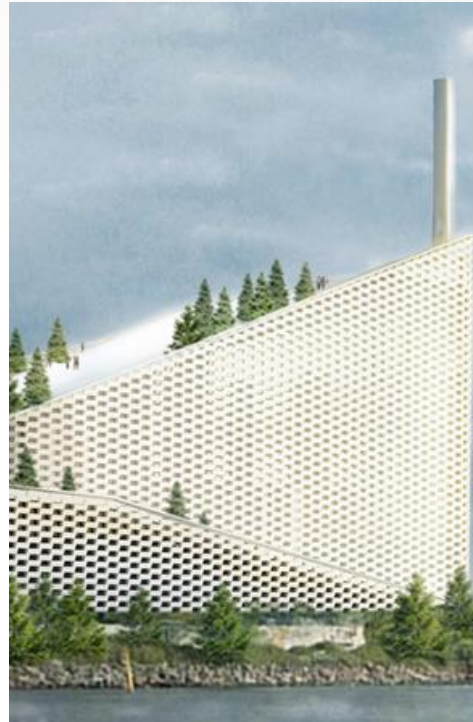
Power plants



CCGT



Waste incineration plants



Green Energy



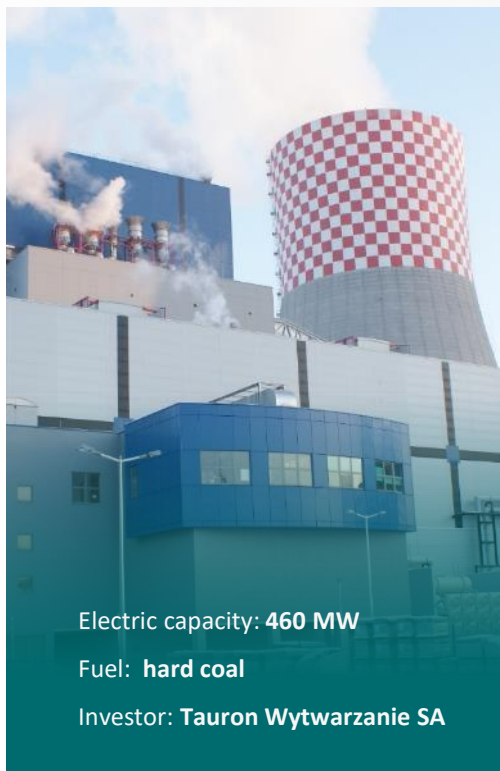
Nuclear Energy



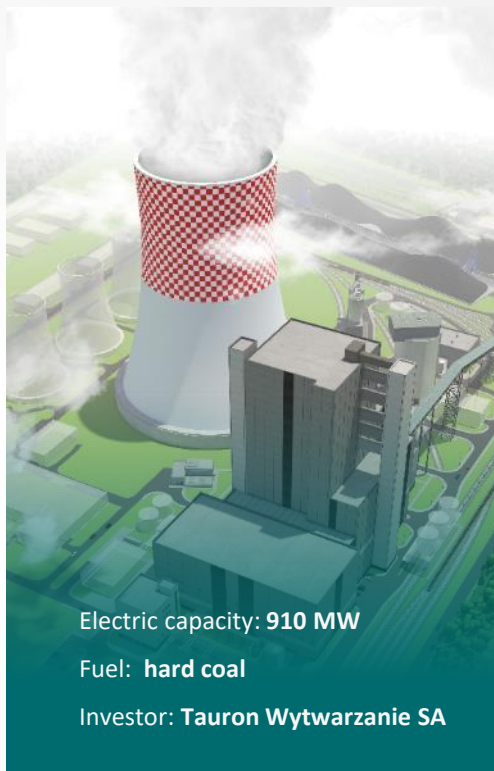
Power Plants

for supercritical parameters

Łagisza



Jaworzno



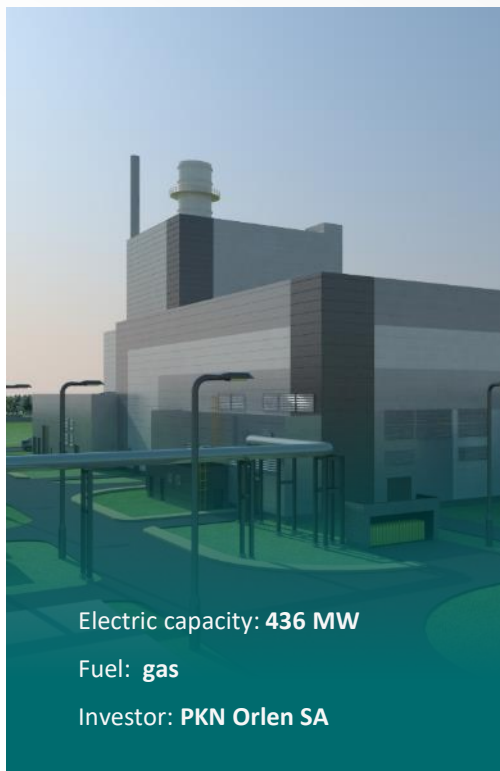
Kozienice



CCGT Units

Poland

Włocławek



Stalowa Wola



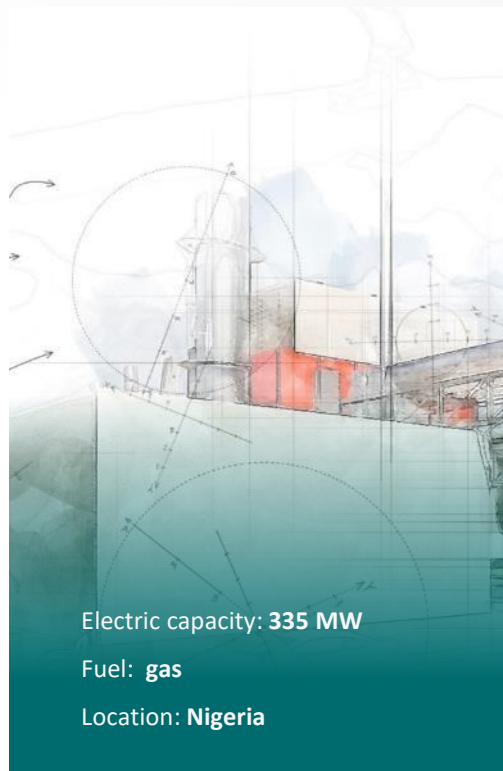
Płock



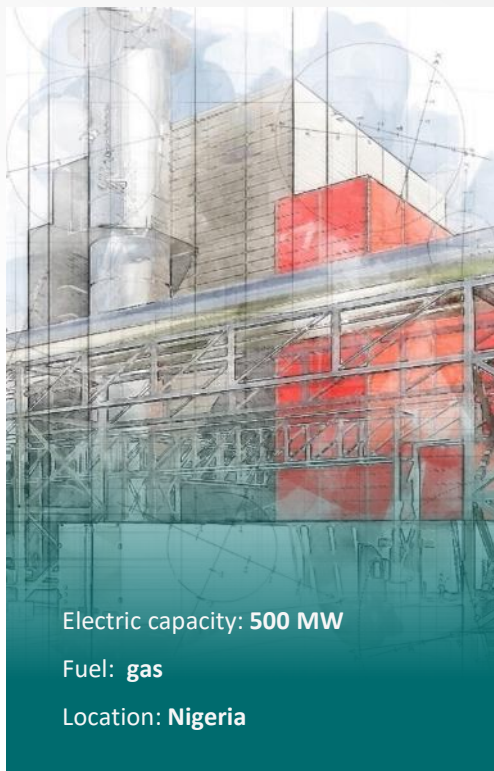
CCGT Units

Africa

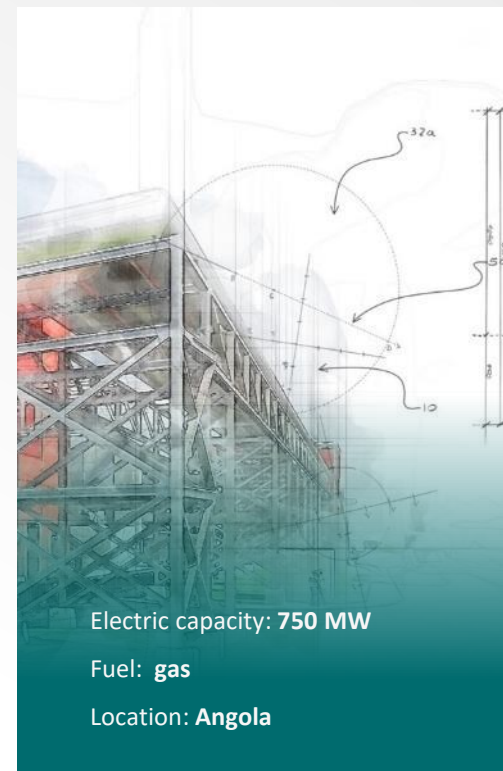
Omotosho I



Omotosho II



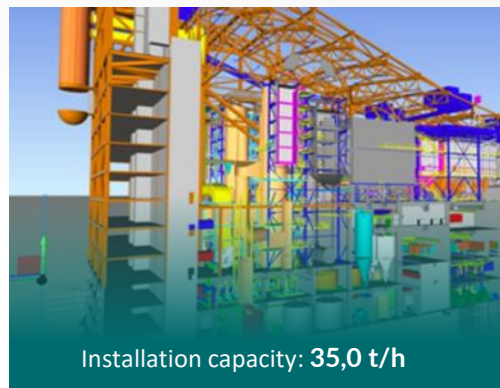
Soyo I



WASTE INCINERATION PLANTS

Poland & World

Amager Bakke, Dania



ITPOE Rzeszów



Peterborough, Anglia



Teeside, Dania



ITPOE Olsztyn



Filbournaverke, Szwecja



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PV farm

Construction of a PV farm with technical infrastructure
Location: **Adamów mine lands**
Nominal capacity: **70 MWp**

PV farm

Five Construction Projects for Photovoltaic Farms.
Location: **Zamojszczyzna**
Nominal capacity: **~125 MWp**

PV farm

Feasibility study for the construction of a photovoltaic farm
Location: **Ruda Śląska**
Nominal capacity: **100 MWe**

Generation
fields

PV power plant

Two Construction Projects with multi-discipline Executive and As-Built Design
Nominal capacity: **32,5 MWp**

PV farm

Development of 5 construction projects for photovoltaic farm generation fields
Nominal capacity: **125 MWp**

PV farm

Development of 4 construction projects for MV/WN substations along with cable connections of these substations to generation fields
Nominal capacity: **125 MWp**

Output of power



Green energy

Hydrogen

Full-scale project support:

- Hydrogen generation facilities;
- Charging stations.



- Preliminary concept of a pilot hydrogen production and refueling system;
- Development of hydrogen production concept;
- Construction Project. Design of a 5 MW hydrogen plant with associated infrastructure with obtaining all administrative permits;
- Designing a hydrogen refueling station, including obtaining all administrative permits.



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Green energy

Offshore wind farms

Marine part

Technical advice

- Concepts and studies related to power derivation from offshore farms.
- Analyses related to the possibility of connecting offshore farms to the electrical system.
- Advising on the procurement process for the selection of a general contractor for the construction of the onshore connection for the Baltica 2 and Baltica 3 offshore wind farms, together with support during the conduct of the proceedings.
- Thermal impact assessment of the proposed cable line for the Environmental Impact Assessment Report for FEW Baltic II transmission infrastructure.

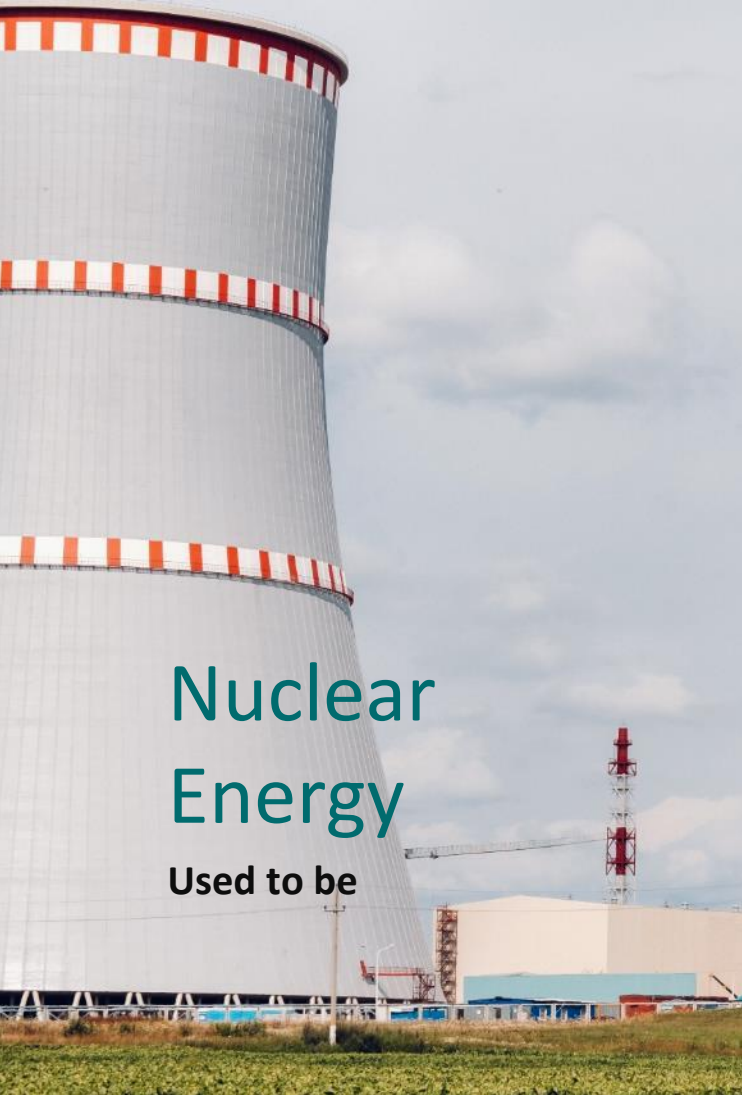
Land part

Full-service consulting and project support

Technical consultancy for the project entitled "A set of offshore wind farms with a maximum total capacity of 1,200 MW and technical, measurement, research and service infrastructure related to the preparatory, execution and operation stages" in terms of supporting the Ordering Party in the scope related to the connection of the set of offshore wind farms with a maximum total capacity of 1,200 MW to the National Power System:

- Stage 1: Conducting a technical area analysis of the Connection Conditions and the draft Connection Agreement for the 1200 MW Baltic Power Offshore Wind Power Plant.
- Stage 2: Development of a multi-variant technical analysis (power spread analysis, voltage analysis, short-circuit analysis) to verify the appropriateness of the investment to ensure connection of the derivation of full power from the Offshore Wind Power Plant.





Nuclear Energy

Used to be

PGE EJ SA

Acquisition and compilation of data with sources on 20 sites where future construction of a nuclear power plant is possible.

June 2011

Ministry of Economy

Expert opinion on criteria for the location of nuclear power plants in Poland and evaluation of agreed locations.

March 2010

PGE EJ SA

Technical and economic analysis of the impact of cooling conditions on the efficiency of construction and operation of a nuclear unit.

November 2010

PGE EJ SA

Information on legal-administrative requirements for the preparation of an investment project in the Polish energy sector.

August 2010

PGE SA

Analysis of the profitability of PGE SA's participation in the construction of a new nuclear power plant in Ingalina, Lithuania, and the construction of a Poland-Lithuania electricity interconnection.

August 2008

KIEFER & VOSS GMBH

Executive documentation for the pipeline facilities of the Olkiluoto nuclear unit in Finland.

August 2006





Nuclear Energy

Today

Full-service consulting and project support :

- field analysis - preliminary and preparatory work - selection of potential sites (preliminary site selection) - IAEA guidelines and key criteria;
- Preparation of a localization report for the designated site;
- preparation of an environmental impact report;
- preparation of feasibility study;
- Comprehensive documentation for the issuance of the basic decision on the construction permit;
- comprehensive project documentation at the stage of implementation;
- Managing the process of changes relevant to construction law;
- Up to the development of the final version of the replacement construction project.



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Nuclear Energy

Today

Current contracts:

- Four contracts are currently underway for the preliminary selection and site analysis of nuclear power plants and radioactive waste storage sites.
- Advisor in the process of implementing SMR technology in Poland based on Hitachi BWR-X reactors.
- 300NCBJ - HTGR reactor basic research project in Poland - conventional energy conversion plant island.
- We are also in the process of signing three framework agreements to support investors in the process of building nuclear power plants in Poland (large-scale and SMR).

Signed agreements:

KHNP – September 2018

Bechtel – April 2022

Daewoo Engineering & Construction

Doosan Enerbility – July 2022

Westinghouse – September 2022

KHNP – October 2022 (renewal)

RIZZO International Inc. (pending)

EDF – evaluation visit





DEsire

The main objective of the project is to comprehensively prepare a plan for the decarbonization of the country's power industry through modernization with Generation III/III+ and IV nuclear reactors.

Identification and analysis of the national energy and associated infrastructure for its adaptation in the process of modernization with Generation III/III+ and IV nuclear reactors.

Organization and safety of the process of modernization and operation of power plants and power units.

An integrated model for evaluating the energy and economic aspects of nuclear reactor deployment.

Plan to modernize power plants and power units through the use of Generation III/III+ and IV nuclear reactors.



Politechnika
Śląska



Ministerstwo
Klimatu i Środowiska



INSTYTUT
SOBIESKIEGO



ICHJ



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Software used in EPK

basic CAD software(2D, 3D):

Microstation, AutoCad, PowerDraft

large, complex objects and installations, spatial coordination:

PDMS, SP3D (Smart Plan), NAVISWORKS

Process plants (small and medium), flue gas ducts:

Solid Works

P&ID diagrams:

COMOS

project management:

MS Project

documents and project documentation management:

Project Wise

modeling of structures:

Tekla Structures, BOCAD, Bentley AECOsim, Nemetschek Allplan

detailed drawings of steel structures:

Tekla Structures, BOCAD, Bentley Structural

detailed drawings of reinforced concrete structures:

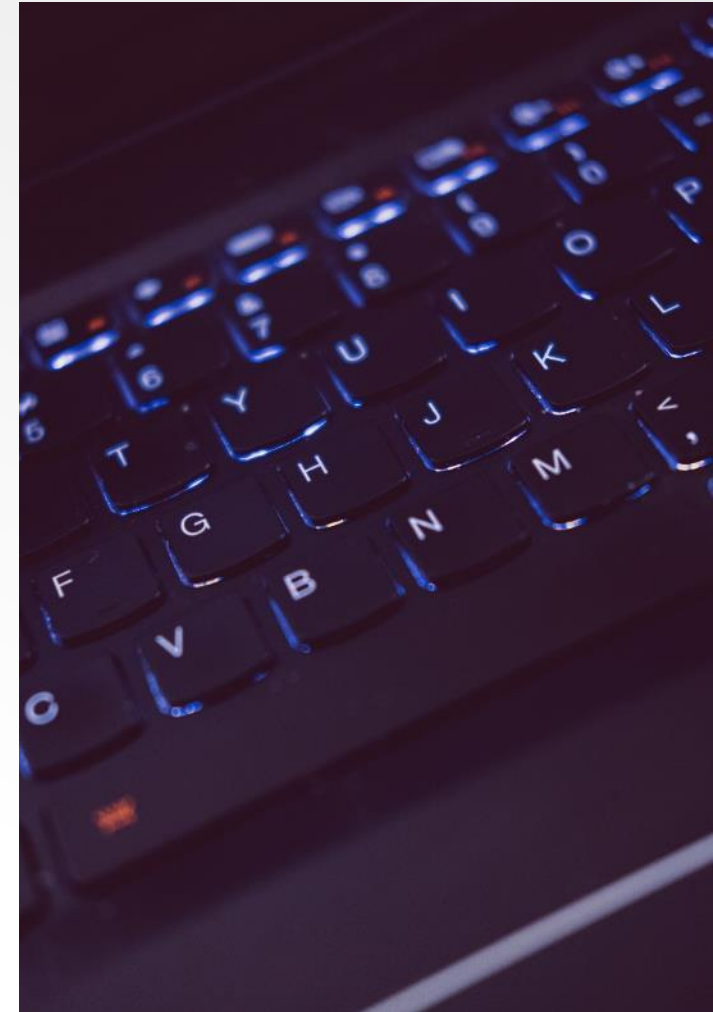
Nemetschek Allplan

computational analyses:

**Robot Structural Analysis, RSTAB / RFEM, PROKOP, RC CALCULATOR,
STAAD Pro, Specbud, MathCAD, Ansys**

architectural documentation:

**TRIFORMA, Bentley AECOSim, SketchUP, Autodesk 3ds Studio,
PHOTOSHOP, COREL DRAW**



Software used in EPK

thermal process design:

Thermoflow

flow modeling - CFD simulation software:

**Thermoflex, AFT, Apros, SolidWorks Flow Simulation,
ANSYS NLS / FLUENT**

Elasticity calculations for piping systems, strength analyses:

AutoPipe, Caesar II, Rohr 2, SolidWorks Simulation Premium, VVD

market prediction tool:

PLEXOS

Analysis of traffic and industrial noise, creation of acoustic maps:

SoundPlan Professional, HPZ 2001

sound insulation calculations:

INSUL

acoustic absorption:

ZORBA

industrial noise forecasting:

LEQ Professional

modeling of the spread of pollutants in the atmospheric air :

Pakiet OPERAT-FB





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