



P^{esign} **Power**

Company Papers

Innovation and Excellence

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Design Power

design, consultancy

POWER DESIGN is a design and technical consultancy company specialized in services in the following main areas:

- HVAC and plumbing installations: buildings for industrial, commercial or tertiary domain
- Indoor electrical installations
- Power Plants based on renewable energy sources: wind farms, solar plants, micro hydro and so on, getting electricity renewable
- Electric distribution networks: electric installations, HV, MV stations and substations, HV, MV and LV distribution networks including the construction parts
- Site management for electrical and construction
- SCADA solutions for distribution networks, industrial applications
- Project management
- Energy Balance
- Energy Efficiency
- Urban and architectural lighting

Our products are studies and projects corresponding to these directions.

The documentation maybe supplied on request both in Romanian and international languages: English, French, German.

The company was founded in 2006, trying to cover the increased demand for specialized technical services generated by massive investments that were made in the period in Romania. Over time, the company has expanded and is currently acting in the national and international market.

The company's philosophy

We deem engineering as a vocation, that is why we get totally involved, trying each day to be better than the day before.

We design. This means we have to discover solutions, offering consultancy and design to suit our client aims. We work with our clients to develop projects. The journey towards a new projects is often difficult, but we travel with our clients from the first to the last day.

We integrate. Engineering is strongly melting in every project.

We use computers. Computers are our precise tools. Tolerances and errors belong to the real world and we reduce them by not allowing them into the virtual project. The virtual is the future real in permanent discussion with what it has to become.

We understand technology. Our design and consultancy offers solutions for our clients to generate, transmit and distribute electrical energy at the highest levels of efficiency.

We adapt. Permanent evaluation of the project development means to adapt to what becomes priority. This also means to stay open and to never consider a project frozen, solved. We adapt as a way of development towards reality and quality.

We revise. To design means to manage the changes and to permanently revise models, drawings, schedules. Revision doesn't mean correction but evolution.

We communicate. Continuous communication with clients, authorities, contractors and suppliers is fundamental. Lack of communication in construction cost lots of money in the end.

We innovate. There is no progress without innovation. Creation and innovation are the means for design. The last project has to be better than the previous.

We deliver. To design means to deliver what expected at the right time. A project is a series of deliveries.

We look for the environnement. Nothing we propose must affect the environment. That is why we got involved in projects for enviroment friendly buildings, green energy solutions, water treatment plants with ecological or recyclable materials, that are good for the future. And not at last we follow our projects to lead to reduced energys consumption.

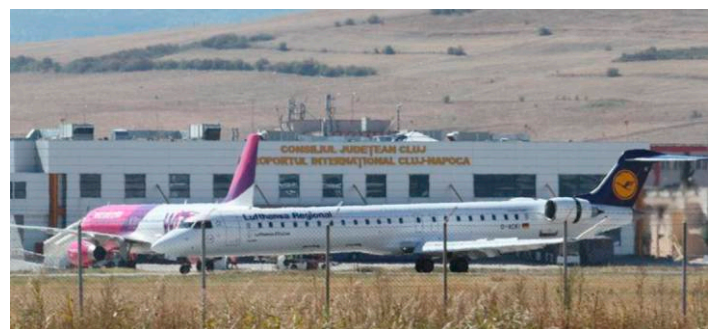
1. Electrical Installations



Avram Iancu International Airport, Cluj-Napoca *Electric Design and Consultancy*

- Increase the safety in energy supplying of the Airport by mounting new modern and efficient equipments;
- Ensure the maximum continuity in energy supplying for the Airport in any condition by making this new electrical line from a different source.
- Design of underground lines from two sources: 110/20 kV substation and 20 kV substation
- Design of a new medium voltage 20 kV substation for the airport with the latest 20 kV equipments;

Total investment costs: 1 180 000 USD



Kaufland Turda Logistik Warehouse *Design and Consultancy*

- Design of connection installation 20 kV voltage from 110/20 kV substation for a better continuity in energy supplying;
- Design of a new medium voltage 20 kV substation with the latest 20 kV equipments;
- Ensure the maximum continuity in energy supplying for the factory in any condition by making two cable routes.
- Warehouse area: 128500 sqm

Total investment costs: 67 000 000 USD



BauMax-x Bucuresti (Chitila)

Design and Consultancy

- Design of internal electrical and HVAC installations;
- Using new type of equipments with a high degree of efficiency for indoor installations;
- Store area more than 16 000 sqm;

Total investment costs: 12 000 000 USD



BauMax-x Craiova

Design and Consultancy

- Design of internal electrical and HVAC installations;
- Using new type of equipments with a high degree of efficiency for indoor installations;
- Store area more than 9 000 sqm;

Total investment costs: 9 400 000 USD



BauMax-x Timisoara Sud

Design and Consultancy

- Design of internal electrical and HVAC installations;
- Using new type of equipments with a high degree of efficiency for indoor installations;
- Store area more than 9 000 sqm;

Total investment costs: 12 000 000 USD



Campia Turzii City Sewage Water Treatment Plant

Electrical Design and Consultancy

- Site supervision and electrical design subcontracted by Italian main contractor DONDI;
- Design of the new sewage water treatment plant – electric and automation part;
- Details of execution for the equipments;
- Sewage water treatment plant for Campia Turzii City with a population over 1 00 000 people.

Total investment costs: 21 000 000 USD



Dej City Sewage Water Treatment Plant

Electrical Design and Consultancy

- Site supervision and electrical design subcontracted by Italian main contractor DONDI;
- Design of the new sewage water plant – electric and automation part;
- Details of execution for the equipments;
- Sewage water treatment plant for Dej City with a population over 50 000 people;

Total investment costs: 14 500 000 USD



SINIAT Factory connection installation

Design and Consultancy, Solution Study for Connection:

- Design of connection installation 20 kV underground cables to the medium voltage CEZ electrical network;
- Design of a new medium voltage 20 kV substation with the latest 20 kV switchgear;
- Ensure the maximum continuity in energy supplying for the factory in any condition by rehabilitation of the existing CEZ electrical installations in the area;
- Topographical and geological studies.
- Electric power: 3900 kW
- Plant surface: 25650 sqm

Total investment costs: 65 000 000 USD



Arcelor Mittal Galati Steel Plant

Design and Consultancy

- Energy Efficiency study and measurements for the large consumers in the steel plant.
- Compensate the reactive power by mounting multiple capacitor tanks installations with automation and SCADA system.
- Steel Plant energy costs reduced.

Total investment costs: 400 000 USD



Lafarge Houghiz Cement Factory

Design and Consultancy

- Energy Efficiency study and measurements for the high voltage transformers 110/6 kV in the factory.
- Newest generation equipments were mounted for the medium voltage 6 kV part of the factory;
- New fiber optics cable mounted on the AEL 110 kV 6 km line which supply the energy for the factory to coordinate the protections with the Electrica 110 kV Distribution Network;
- The protection systems for 110 kV network were changed with the latest and modern equipments for the new SCADA system;
- Rehabilitation of the construction part for the new generation equipments;
- Geological and topographical studies;
- Reduce the costs for the maintenance for the factory by mounting new generation equipments.
- Electric power: 2X40 MVA
- Factory surface: 217.000 sqm

Total investment costs: 2 500 000 USD

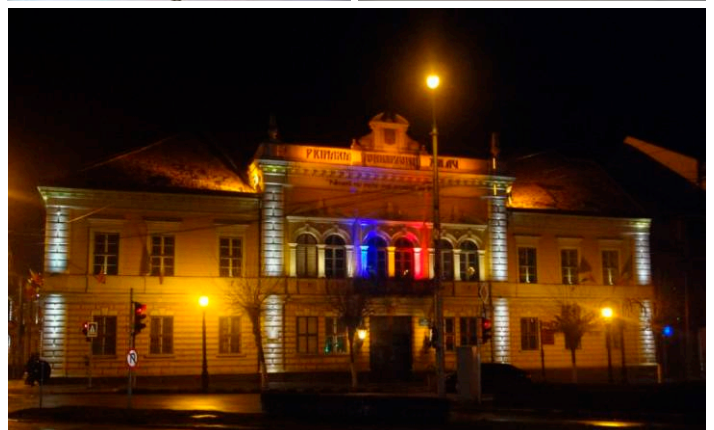


Town city hall of Zalau

Design and Consultancy

- Design of internal electrical and HVAC installations.
- Architectural outdoor light with newest generation of LED lights design for the city hall building;
- Surface area more than 5 000 sqm
- Project management.

Total investment costs: 300 000 USD



Pantelimon 150 MW Wind Plant

Design and Consultancy

- Consultancy for Schneider Electric France
- Design and optimization of 33 kV medium voltage network of Pantelimon wind plant;
- SCADA architecture for internal installations of Pantelimon Wind Plant
- Design of the Medium voltage 33 kV equipment that was mounted inside the generators;
- Up to 62 km medium voltage cable route.
- Electric capacity of Wind Plant: 150 MW

Total investment costs: 300 000 000 USD



MHC Hidroart hydro power plant

Design and Consultancy:

- Design of connection installation 20 kV voltage for microhydropower plant Hidroart;
- Making of a new 20 kV connection a mixed 20 kV line with underground and aerial cables to Electrica Network;
- Design of a new medium voltage 20 kV substation with the latest 20 kV equipments;
- MHC capacity 3 MW.

Total investment costs: 1 500 000 USD





Connection of Photovoltaic Plant Ciuperceni 56 MW

Design and Consultancy

- Design of internal low voltage and medium voltage installations of the photovoltaic plant (pv panels, array boxes, inverters, LV/MV cabins, transformers, MV connection points, LV and MV cables etc.);
- Design of the medium voltage/high voltage transformation substation 20/ 110 kV, 63 MVA transformer;
- Design of the high voltage connection line, an underground 110 kV cable with an approximate layout of 5 km length;
- Design of the connection point to the overhead aerial 110 kV line, the connection between 110 kV underground cable and aerial conductors;
- Electric capacity of photovoltaic plant: 56 MW
- Surface: 1.000.000 sqm

Total investment costs : 120 000 000 USD



AEL 220 kV Iernut - Ungheni

Design, Technical Expertise and Consultancy

- Rehabilitation of aerial electrical high voltage line 220 kV Iernut – Ungheni 30 km (92 poles for 220 kV) – foundations rehabilitation, mounting new aerial 220 cable for reducing the losses, rehabilitation and painting of the poles, mounting new insulators on the line;
- Establish the line estimated life length using special equipments and software;
- Geological and topographical studies;

Total investment costs: 3 060 000 USD



High voltage networks and substations of E-ON Electric Grid Distributor

Design, Technical Expertise and Consultancy

- Technical expertises of 110 kV metal poles, 110/20 kV substations equipments;
- Geological and topographical studies;
- Using of specialized software for expertise of constructions;
- Design of connection installation (110 kV, 20 kV underground cables and aerial conductors) to medium and high voltage electrical network, design of new medium and high voltage 110/20 kV substations;
- Solutions for rehabilitation and upgrading the expertised installations.

Total investments costs - 6 080 000 USD



Basarabi 110/20 kV High Voltage Substation CEZ Distributor

Design and Consultancy

- Rehabilitation of the construction part of the substation and mounting new 110 kV and 20 kV equipments and digital protection system;
- Introduction of SCADA system for the substation.
- The maintenance costs for the Basarabi substation were reduced.

Total investment costs: 3 500 000 USD



High voltage networks and substations of E-ON Electric Grid Distributor

Design and Consultancy

- Feasibility study of 110 kV metal poles, 110/20 kV substations;
- Geological and topographical studies;
- Design of connection installation (110 kV, 20 kV underground cables and aerial conductors) to medium and high voltage electrical network, design of new medium and high voltage 110/20 kV substations;
- Solutions for rehabilitation and upgrading the studied installations.

Total investments costs: 5 000 000 USD



Medium and high voltage networks from ENEL Electric Grid Distributor

Design and Consultancy, Solution Studies for Connection:

- Design of connection installation (110 kV, 20 kV underground cables and aerial conductors) to medium and high voltage electrical network, design of new medium and high voltage 110/20 kV substations;
- Electrical network 400kV, 220 kV, 110 kV, 20 kV calculations and power flow using special electrical software;
- Rehabilitation and upgrading of the existing connection installations;

Total investments costs: 6 080 000 USD



Gugesti 110/20 kV High Voltage Substation Electrica Muntenia Nord Distributor

Design and Consultancy

- Rehabilitation of the construction part and mounting new 110 kV and 20 kV switchgear
- Introduction of SCADA system for the substation.
- Reduction of the maintenance costs.

Total investment costs - 1 880 000 USD



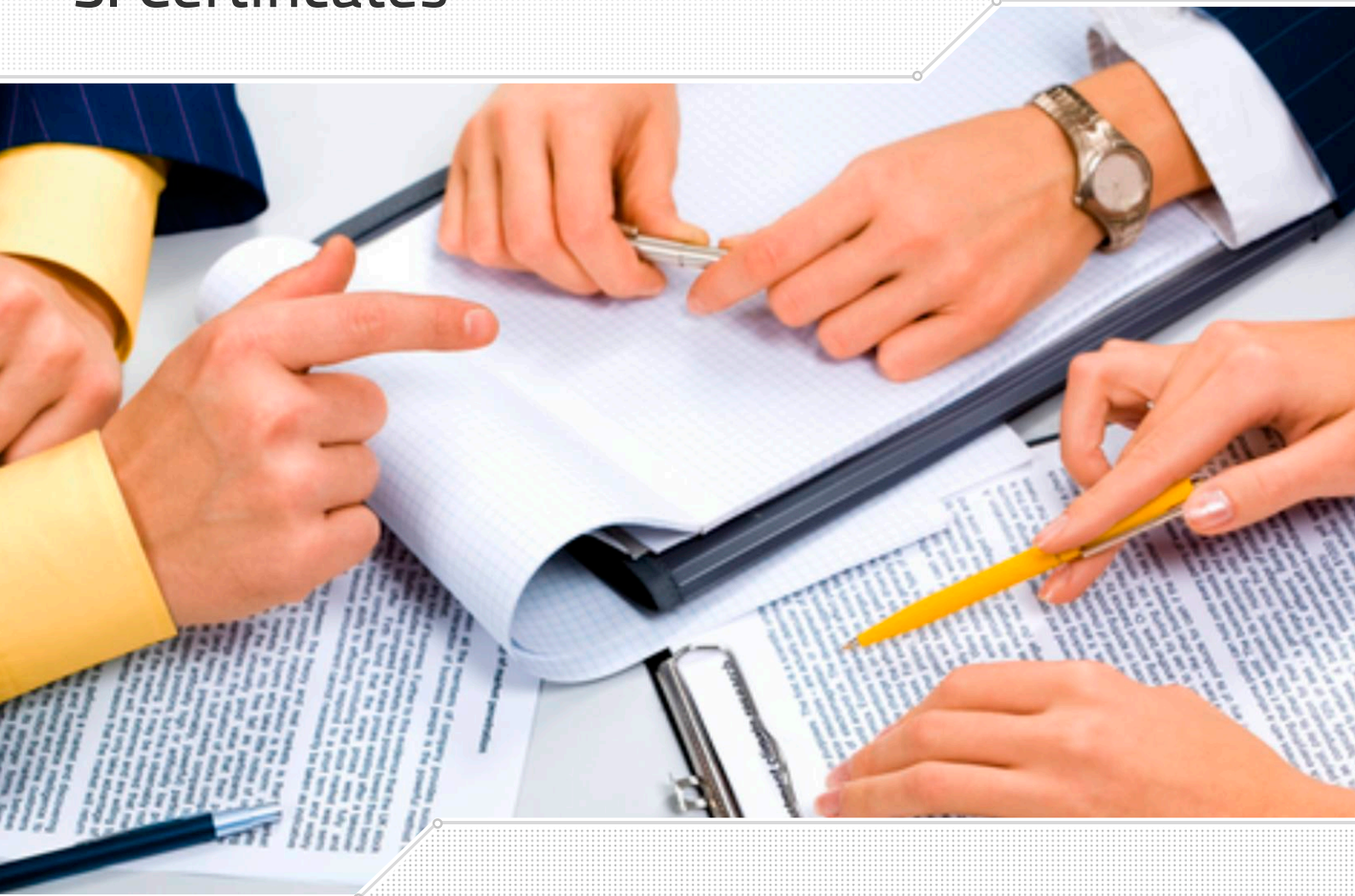
2. Business Partners

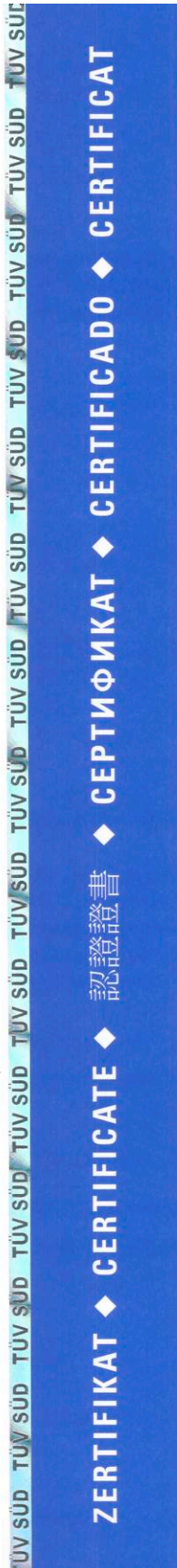


Business Partners



3. Certificates





Management Service

CERTIFICATE

The Certification Body
of TÜV SÜD Management Service GmbH
certifies that



POWER DESIGN SRL
Str. ANA ASLAN NR. 40
400528 CLUJ - NAPOCA
Romania

has established and applies
a Quality Management System for

**Design of electric installations with
rated voltages between 0,4-400kV:
electric lines, electric stations, parts of electric plants,
transformer substations, indoor installations.
Consultancy in the field of electrical installations**

An audit was performed, Report No. **70727336**
Proof has been furnished that the requirements
according to

ISO 9001:2008

are fulfilled. The certificate is valid from **2013-07-16** until **2016-07-15**.

Certificate Registration No. **12 100 31669 TMS**

Ms. Wegner

Product Compliance Management
Munich, 2013-08-07



Deutsche
Akkreditierungsstelle
D-ZM-14143-01-03



Certificate of Registration

This certificate has been awarded to

POWER DESIGN SRL

Str. Ana Aslan, Nr. 40, 400528 Cluj Napoca, Jud. Cluj, România

in recognition of the organization's Environmental Management System which
complies with

ISO 14001:2004

The scope of activities covered by this certificate is defined below

Design for Electric Installations with Nominal Tensions of 0,4-400KV (Electric Lines and Stations, Parts of Electric Centres, Transforming Posts, Interior Installations), Water and Sewage Projects, Thermal, Ventilation, Sanitary and Interior Gas Installations.

Certificate Number:
35622/B/0001/UK/En

Date of Issue: (Original)
22 June 2009

Expiry Date:
21 June 2018

Issue No:
3

Date of Issue:
22 June 2015

First annual surveillance
audit expiry date:
21 June 2016

Second annual surveillance
audit expiry date:
21 June 2017



Issued by: on behalf of the Schemes Manager



Dacă aveți vreo nelămurire cu privire la autenticitatea acestui certificat, vă rugăm să ne contactați la biroul nostru central pe adresa info@urscertification.ro.
URS este membru al Registrar of Standards (Holdings) Limited, Winstington House, 3 Durlay Road, Bournemouth, BH2 5JD, UK



Certificate of Registration

This certificate has been awarded to

POWER DESIGN SRL

Str. Ana Aslan, Nr. 40, 400528 Cluj Napoca, Jud. Cluj, România

in recognition of the organization's Health and Safety Management System which complies with

OHSAS 18001:2007

The scope of activities covered by this certificate is defined below

Design for Electric Installations with Nominal Tensions of 0,4-400KV (Electric Lines and Stations, Parts of Electric Centres, Transforming Posts, Interior Installations), Water and Sewage Projects, Thermal, Ventilation, Sanitary and Interior Gas Installations.

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AUTORITATEA AERONAUTICĂ CIVILĂ ROMÂNĂ	 ROMANIAN CAA	ROMANIAN CIVIL AERONAUTICAL AUTHORITY
Tel: +40.21.208.15.08 Fax: +40.21.208.15.72 +40.21.233.40.62	Sos. București-Ploiești nr.38-40 RO-013695, București sector 1, Romania	AFTN: LRBBYAYA SITA: BUHTOYA www.caa.ro e-mail: dir.gen@caa.ro
Operator de date cu caracter personal înregistrat la ANSPDCP cu nr. 20425		
CERTIFICAT DE AUTORIZARE APPROVAL CERTIFICATE Nr. AAP 81/ 2014		
<p>1. În baza prevederilor art. 63 din Ordonanța Guvernului României nr. 29/1997 privind Codul aerian al României, republicată, cu modificările și completările ulterioare, a competențelor acordate prin Hotărârea Guvernului României nr. 405/1993, privind înființarea A.A.C.R., cu modificările ulterioare și a rezultatelor evaluării, consemnate în Raportul de audit nr. AAP 81 din 10.04.2014, Autoritatea Aeronautică Civilă Română emite prezentul Certificat de autorizare pentru</p>		
POWER DESIGN S.R.L. Cluj Napoca, str. Ana Aslan nr.40, etaj 1, județul Cluj		
pentru efectuarea în domeniul aeroportuar a activităților cuprinse în Anexa la prezentul Certificat.		
<p>1. According to the provisions of art. 63 of the Romanian Government Ordinance No.29/1997 regarding the Romanian Air Code republished, with amendments and additional requirements, based on the competencies granted by the Romanian Government Decision No. 405/1993, regarding the Romanian CAA establishment, with additional amendments and on the evaluation results of the Audit Report No. AAC 81 dated 10.04.2014 the Romanian Civil Aeronautical Authority hereby issues the present Certificate of approval for</p>		
POWER DESIGN S.R.L. Cluj Napoca, str. Ana Aslan nr.40, etaj 1, județul Cluj		
for carrying out in airport field the activities from the Annex to this Certificate.		
<p>2. Prezentul certificat este valabil până la data de 10.04.2015, condiționat de menținerea condițiilor de autorizare declarate în documentele transmise în vederea autorizării și poate fi prelungit, la cererea POWER DESIGN S.R.L. Certificatul poate fi modificat, restricționat, suspendat, revocat sau anulat de către Autoritatea Aeronautică Civilă Română, oricând va constata că nu mai sunt îndeplinite condițiile de autorizare.</p>		
<p>2. The present certificate is valid until 10.04.2015, provided that the conditions specified within the documents submitted for authorization are preserved and may be extended at the request of POWER DESIGN S.R.L. The certificate can be modified, limited, suspended, revoked or cancelled anytime the Romanian Civil Aeronautical Authority considers that the conditions for authorisation are no longer observed.</p>		
Data eliberării / Date of issue: 24.04.2014		
DIRECTOR GENERAL AACR  Armand PETRESCU		
Ediția 1 / 1 st Edition		

POWER DESIGN Ltd

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