PowerLabDK

We aspire to

- Support experiments of the highest international standards
- Support experiments which are difficult or impossible to undertake in conventional facilities
- Be open and accessible to all users – academia as well as commercial
- Support all stages of the development process
- Offer optimized conditions for knowledge transfer and commercialisation of results
- Collaborate with leading facilities world wide

PowerLabDK secretariat

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PowerLabDK partners

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Copenhagen University College of Engineering, IHK
www.ihk.dk
Intelligent Energy Systems, DTU Elektro
www.risoecampus.dtu.dk/ies
Østkraft, the energy company of Bornholm
www.oestkraft.dk

DTU

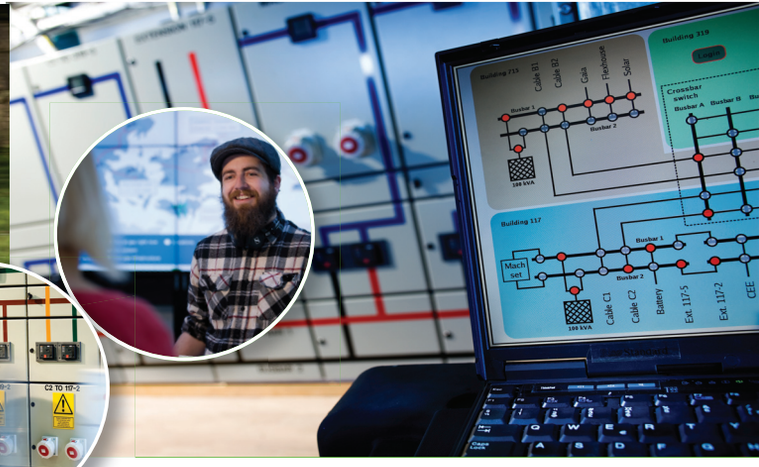
INGENIØR HØJSKOLEN KØBENHAVN – University College

ØSTKRAFT energi til gode oplevelser

PowerLabDK

Photo: Jens Rosenfeldt, Torben Nielsen

About PowerLabDK



PowerLabDK is an experimental platform for electric power and energy. The PowerLabDK facilities create a unique multi-purpose platform, ranging from flexible fundamental research laboratories to large-scale experimental facilities and a complete full-scale power distribution system that proves resourceful as data source and platform for full-scale experiments.

Developing our future energy system

PowerLabDK provides facilities for experiments within Smart Grids and sustainable energy technologies that will enable a future low-carbon energy system mainly based on renewable sources. PowerLabDK supports collaborative activities, knowledge transfer and is moreover open for all users. We welcome academics as well as commercial stakeholders to utilize the experimental facilities.

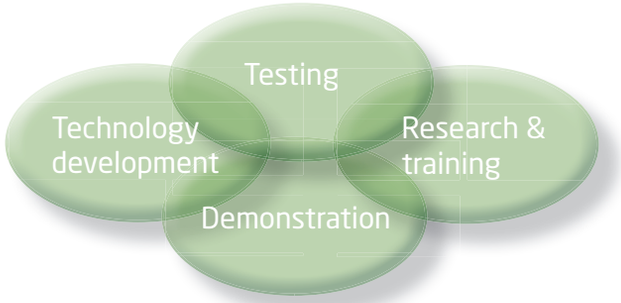
PowerLabDK is Open for all. Self-service. Full-service. You decide.

PowerLabDK specialises in

- Renewable energy technologies
- Smart Grids based on information and Communication Technology (ICT)
- Electric components and apparatus performance
- Power system, monitoring and control solutions
- Integration of wind power and other renewable sources
- Electric vehicle (EV) integration
- Demand response technologies

Complimentary facilities

PowerLabDK provides complimentary experimental facilities for research, technology development, commercial testing and training within electric power and energy.



Existing facilities are upgraded, extended and interconnected based on a 18 million Euro funding from EUDP, Green Labs DK, Regional Growth Forums, Danish energy companies and industry as well as the PowerLabDK partners.

Bornholm Power System

The Bornholm power system is a full-scale distribution grid with 27,000 customers (55 MW peak), 33% wind power penetration and capability for isolated operation of experiments with new Smart Grid solutions.

Electric Lab

Electric Lab offers development and testing of energy technologies, control concepts and ICT-solutions and includes a flexible grid infrastructure with 21 test sites, 150 kW amplifier and renewable energy sources.

High Power Lab

The high-power laboratory at IHK is designed for conducting short-circuit tests. The main supply is a separate 10 kV-line.

High Voltage Lab

The High Voltage Lab enables investigations of power components in interaction with complex energy systems and subsystems under high voltage and high current conditions.

Intelligent Control Lab

This lab for modern power system operation enables R&D within operator training, SCADA and EMS applications etc. The lab has full-scale control room, computer facilities and enables integrated supervision/simulation/hardware testing.

PowerFlexHouse

PowerFlexHouse is a flexible platform for development and performance test of intelligent buildings and their integration with Smart Grids.

Power Student Lab

Power Student Lab offers a flexible teaching and testing work space supporting the education of the energy engineers of the future.

SYSLAB

SYSLAB at DTU Risø campus for intelligent distributed power systems enables research and testing of control concepts and new strategies. SYSLAB includes among other things wind turbines, PV and electric vehicles.