

Institute of Power Engineering of Academy of Sciences of Moldova

Mihai Tirsu

CONTACT

tirsu.mihai@gmail.com

WEBSITE

www.ie.asm.md

ABOUT US

The Moldovan Institute of Power Engineering (IPE) was founded in 1991 on the basis of Cybernetics and Power Engineering Department from 1965. In Moldova the Institute is known as a national leader in the field of energy and environment studies, long term energy planning, renewable energy, automatic electric drives systems and high-voltage electrical lines.

The structure of the Institute is based on four research laboratories:

- Controlled electrical transmission lines;
- Electric power equipment and power electronics;
- Energy efficiency and RES;
- Simulation and diagnostics of power equipment;

The Institute has experience in the field of: renewable energy, optimization of energy systems, high voltage equipment, controlled power transmission lines, electric capacitor, power transformation equipments, regulated electric drive, diagnostics of energy equipment, energy saving and energy security, energy audits, training etc.

The research fields are as follows:

- Increase of efficiency of transport and distributive electric networks;
- Working out of optimal variants of intersystem communications development and joint functioning of power systems of Moldova and CIS countries, and also the analysis of possibilities of joining to UCTE;
- Development of efficient indicators system for power safety monitoring;
- The analysis of losses in transport and distributive electric networks taking into account commercial losses; losses in thermal networks and working out of recommendations about their decreasing;
- Working out of new effective means for the control and management of power system;
- Means of low-potential heat conversion (low-potential thermal pumps);
- New methods of synchronous pulse-width modulation for management of the large converters;
- An effective utilization of renewed sources energy;
- Short-term and long-term forecasts of energy balance development and scenarios of generating capacities building;
- Calculation of CO₂ emissions and calculation of their distribution zone taking into account a wind rose, and also an estimation of influence of these pollution on environment and person health;

AREAS OF ACTIVITY

SERVICES

- Research

What are you looking for...

↳ **Integration of RES in Buildings**

Buildings in urban area are huge consumers of energy. Additionally, energy performance of buildings are very low.

SOLUTION OR EXPERTISE SOUGHT

How to integrate RES in building or district, including methodology for calculation of share of RES, aesthetics of the building, management system.

TYPE OF PARTNER SOUGHT

developing of project proposal for H2020 or other program.

What are you looking for...

↳ **Integration of RES in power grid**

Usually integration of RES in power grid is limited at share of 20-25%. Increasing of RES share is a big challenge.

SOLUTION OR EXPERTISE SOUGHT

Looking for developing technical solutions which will allow to increase share of RES connected to power grid.

TYPE OF PARTNER SOUGHT

Development of project proposal for H2020 or other program