



DoRES

Deployment of smart renewable energy communities

Strengthening energy independence is the top priority of modern society. We offer a technical solution. However, one of the main challenges are administrative barriers - they need to be abolished to allow further progress.

In the European Union as well as in Latvia, a clear target to increase the use of renewable energy resources and decarbonisation in the energy sectors by 2030 was set up. This will reduce the dependency on imported fossil energy resources and significantly minimized CO₂ emissions. Although the share of renewable energy sources in heating in Latvia is one of the highest rates in Europe, but the centralized use of solar energy is not sufficient. Central integration of on-site produced solar energy into energy grids will insure a more environmentally friendly and advanced heating system model.

The aim of the project is to develop a complex approach to cost-effective technical solutions in order to promote the use of renewable energy in the prosumer energy communities.

Project aims to ensure such sector integration as electrical engineering, mechanical engineering and ICT to ensure most efficient deployment of RES, by accelerating the implementation, adaption and knowledge creation of ICT in energy systems and networks. Currently the deployment of local RES is supported by various grants which cover also RES for non-renovated buildings. Installation of local RES requires less on-site staff and less paperwork to get permission in comparison to whole building retrofitting.



Project Duration

01.03.2022 - 01.03.2025

Project Budget

Total Budget: € 480,000. -

Funding: € 480,000. -

Project Coordinator

Riga Technical University (Latvia)

Project Partners

Czech Technical University in Prague (Czechia)

Project Website

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ERA-Net Smart Energy Systems



This project has been funded by partners of the ERA-Net Smart Energy Systems (www.eranet-smartenergysystems.eu) and Mission Innovation (mission-innovation.net) through the Joint Call 2020. As such, this project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 883973.

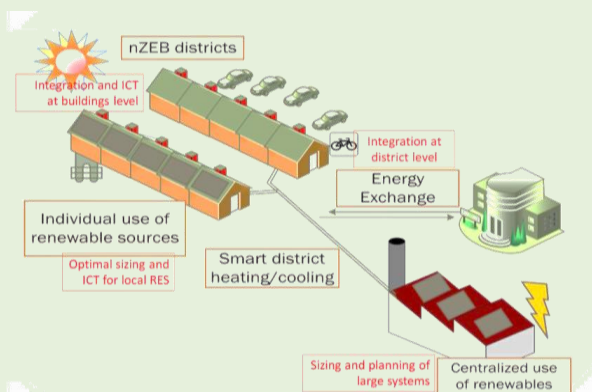
ERA-Net Smart Energy Systems Joint Call 2020 (MICall20)

This project has been awarded funding within the ERA-Net SES Joint Call 2020 for transnational research, development and demonstration projects. 22 Mio EUR of funding have been granted to 21 projects active in 17 regions and countries.

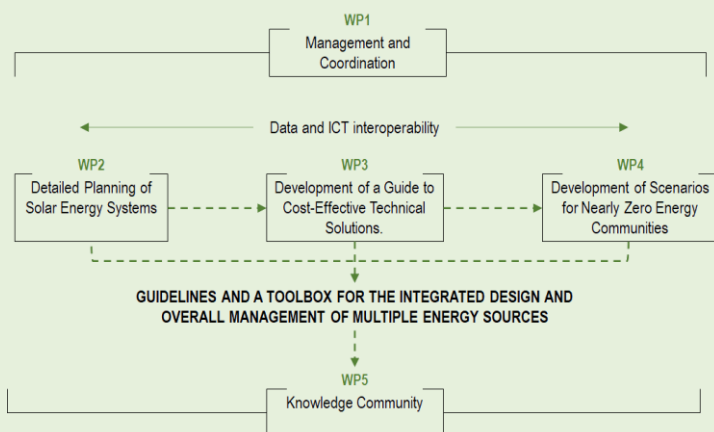
Main Objectives

The project DoRES main objective is to develop an improved and easy replicable solutions for smart control of renewable energy based systems and to ensure smooth energy source transition from fossil to renewable energy during further improvement of overall buildings' energy efficiency. It will provide guidelines and toolbox on integrated multi energy source for all relevant stakeholders. Project results will prepare background for future energy exchange between different scale of nZEB communities.

Concept



Project Workflow



Expected Outcomes

- ✓ Comprehensive planning guide for large-scale systems;
- ✓ Existing tools for solar energy system design;
- ✓ Toolbox software for evaluating PV and energy storage capacity;
- ✓ Analysis of overall RES-HVAC working efficiency based on dynamic energy simulation and measurements in real systems;
- ✓ Energy system digitalization scenarios for nearly zero energy communities

Joint Programming for Flourishing Innovation –
from Local and Regional Trials
towards a Transnational Knowledge
Community

www.eranet-smartenergysystems.eu

