



Exemplary Pilot house in Wakefield, UK

## CONTACT

Project lead

### LEEDS BECKETT UNIVERSITY

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## MORE INFORMATION

On our Project Website

<https://www.nweurope.eu/REDWoLF>



On Twitter

[https://twitter.com/REDWoLF\\_project](https://twitter.com/REDWoLF_project)

@REDWoLF\_project



On LinkedIn

<https://www.linkedin.com/company/red-wolf-project/REDWoLF-project>

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## PARTNERS



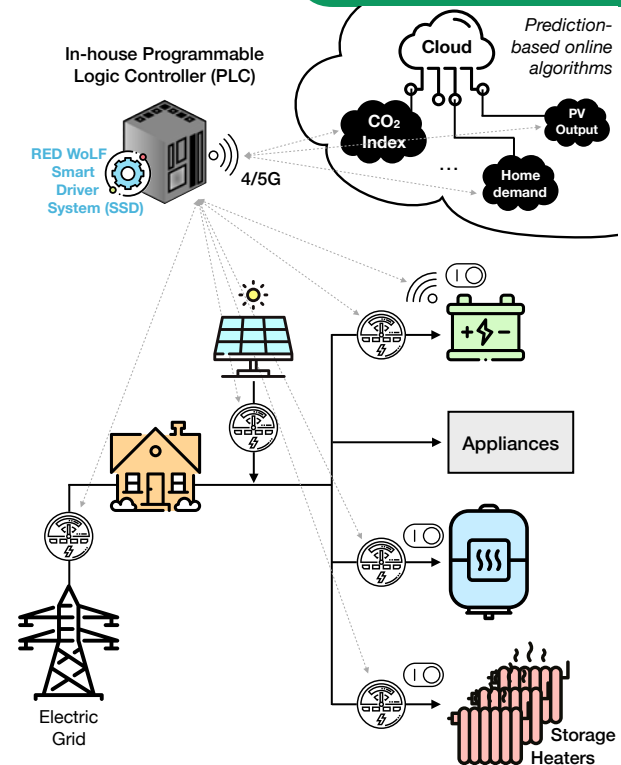
# Interreg

## North-West Europe

### RED WoLF

European Regional Development Fund

THEMATIC PRIORITY:



Creating an AI-driven Hybrid Storage System merging batteries and storage heaters with solar panels and the Power Grid

[www.nweurope.eu/REDWoLF](http://www.nweurope.eu/REDWoLF)

## Rethink Electricity Distribution Without Load Following

### Objective

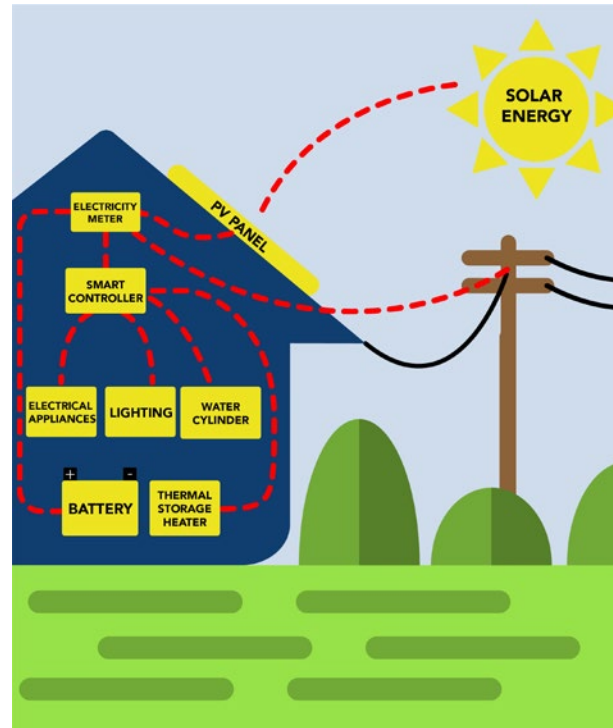
The RED WoLF Project aims **to increase the use of renewables and reduce CO<sub>2</sub> emissions** for homes feeding on electricity only.

Leeds Beckett University is leading the Project in collaboration with 13 partner institutions from the UK, France, Republic of Ireland, Belgium and Germany.

We are creating and testing an AI-driven Hybrid Storage System combining batteries with cheaper thermal storage to create a cost effective residential storage solution. This system shifts households' energy demand from peak to off-peak times. A number of benefits will ensue when this solution will be widely adopted.

Inefficient load-following power plants will be displaced. Renewable energy curtailment will be reduced by providing houses with the greenest, cheapest electricity.

### Activities



This, in turn, will enable the Grid to integrate a higher share of renewable generation. This systems, that automatically adapts to Grid conditions by running its own computations, can be more cost effective than storage on the Grid side, which cannot discriminate between energy aimed at electrical appliances and energy aimed at heating.

Seven Pilot sites totalling ~ 100 houses are active in France, England and Republic of Ireland.

### RED WoLF components

- **PV Solar array**  
Generate renewable energy from the sun.
- **Energy Storage**  
Storage enables the household to shift energy demand in time. Batteries store energy for powering appliances. Storage heaters and water cylinder convert electricity to stored thermal energy to provide, respectively, space heating and hot water.
- **Smart Storage Driver**  
AI software that maximizes PV self-consumption and the intake of low-value, low carbon electricity by shifting demand to off-peak times. This will reduce CO<sub>2</sub> emissions and electricity bills.

### Duration

January 2019 - July 2022

### Project Budget

Total: € 6.06 million  
 EU funding (ERDF): € 3.64 million

