RED WOLF

Rethink Electricity Distrbution WithOut Load-Following

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What challenge or problem are you addressing? What is the need for the project?

The challenge is reducing GHG emissions and increasing energy security by raising renewable's penetration. Including high shares of variable power, both on the customers' (typically domestic PV) and on the gird's side (wind/solar farms, etc.) requires updating the energy provision/uptake pattern. Distributed storage on the users' side with two timescales, daily and seasonal, will relax the grid's need of following demand. Baseload generation can also be reduced. Power provision to rural areas could improve with less network upgrades.

Objective of the project:

Energy balance with PV and storage reservoirs (daily and seasonal) will be modeled for households and SMEs, to plan the reduction of load-following plants as well as of baseload ones.

Why do you need transnational cooperation?

Per capita NWE's GHG emissions are high and climate differences are significant, despite the limited geographical extension. These differences impact both power demand and renewable generation. Collaborating with these differences enabling a flexible NWE solution, adaptable to local geographical and socio-economic opportunities/constraints.

What kind or partners are you looking for?

The project will need utility companies; possibly two in different NWE regions. SMEs will be needed to understand/sample their energy usage and potential to develop storage/microgeneration; local authorities/housing association will provide sampling/expertise on domestic energy consumption.

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