



## Smart rural grids – creating the conditions for decentralised energy production in rural areas

The Smart Rural Grid is an EU research project run by a consortium of Spanish, German, Irish and Norwegian organisations.

The project **tackles the problem that rural distribution networks are vulnerable** and the emergence of small power plants hooked on to the net in the form of solar panels (PV), small wind generators or bio-fueled micro-CHPs often overloads the system.

The results have been successfully tested in the mountain municipality of **Vallfogona del Ripollès in Catalunya with 200 inhabitants**.

The Smart Rural Grid shows how to **exploit the convergence between electricity and telecom networks**. It also demonstrates how utilities (DSOs) can operate more efficiently and to interconnect “energy prosumers” to enable a multi-directional flow of energy.

### Main results

1. A smart rural grid is a system involving **local intelligence, forecasting algorithms and batteries**.
2. This allows local communities to **forecast future generation and consumption 24 hours ahead, match demand and supply, and create an energy island within the distribution network** - thereby reducing energy losses.
3. The pilot study has developed, deployed, connected and tested a **series of smart grid technologies** in the in Vallfogona del Ripollès of Catalunya.
4. It tested both the advantages and barriers applying these technology in **dispersed rural areas and is a valuable source of information for other smart villages**.

For more information visit:

<http://smarruralgrid.eu>