

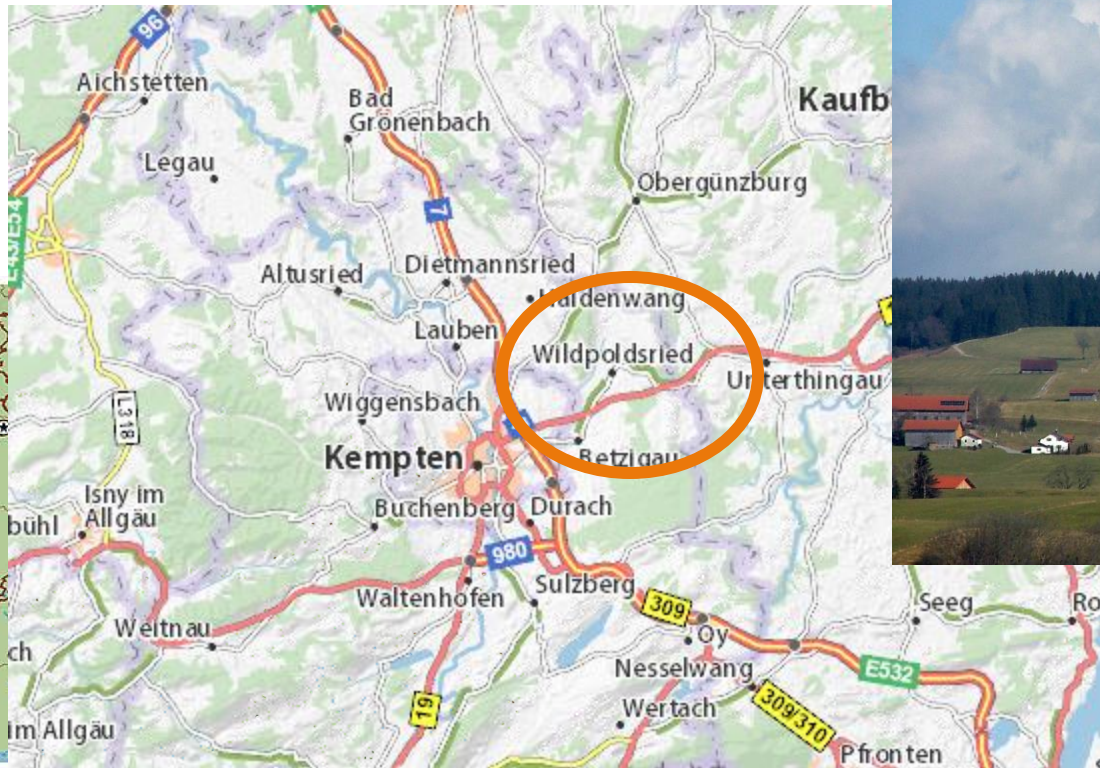
Wildpolsried – home of the power pioneers

Dalibor Marković – Visit Report

Wildpoldsried – home of the power pioneers

Where is this Village?

SIEMENS



Wildpoldsried – home of the power pioneers

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Wildpoldsried – home of the power pioneers

Wildpoldsried is a community with 2500 inhabitants. What makes this village unique in terms of the energy transition? What does this place offer the IREN2 consortium that others don't.

4,000

MWh/year
Electricity
consumption

15,000

MWh Wind
power

17,000

t/year CO2
saved

<http://iren2.ifht.rwth-aachen.de/>

Wildpolsried – home of the power pioneers

About project!

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- Started in late 1990's – Vision to be energy sustainable till 2020.
- Goal made in 2012.
- 2014 started IREN 2 project
- 2016 Operating topological power plant
- Goal for 2020 – each house Power Plant
- New internal Standard from 2016: Energie+ houses only

IREN2 is the first microgrid test of its kind outside of the laboratory

CONSORTIUM



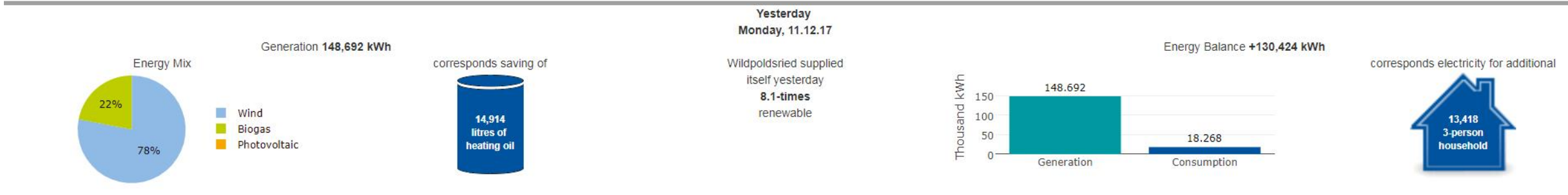
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UNIVERSITY



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Data goes online!



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What is installed?

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What is installed?

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Biogas plant



The CHP of the citizens



Control technology



Battery storage 240kVA



Diesel generator 90kVA



Photovoltaic systems of inhabitants



Wind turbines



Transformer station IRENE



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Additional! Village district heating system

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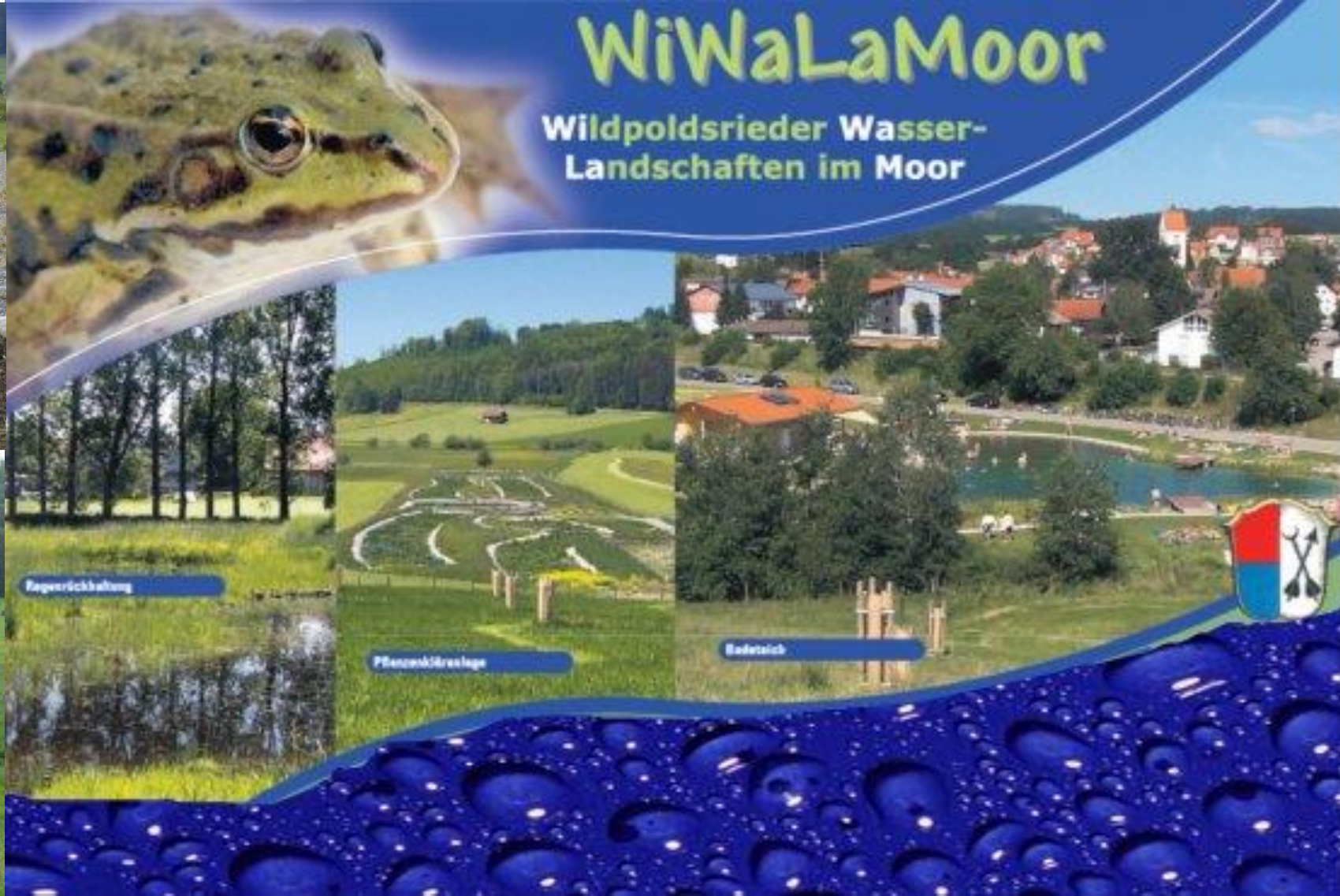
- In function from 2005, several extensions
- Heating for 51 building till 2014.
- Driven by biomass
- Managed by Dorfwentwicklungs GmbH
- Located in the basement of the village Hal
 - Business House
 - Church
 - Hotel KULTIVIERT (Village hal, Caffe...)
 - Kindergarden
 - School
 - Sportshall
 - more than 90 flats
 -



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Additional! WiWaLaMoor – Natural Waste Water Treatment Plant

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Kunststoffe

Kunststoffe

Styropor

Kartonsagen

Mischpapier

Schrott

Schrott

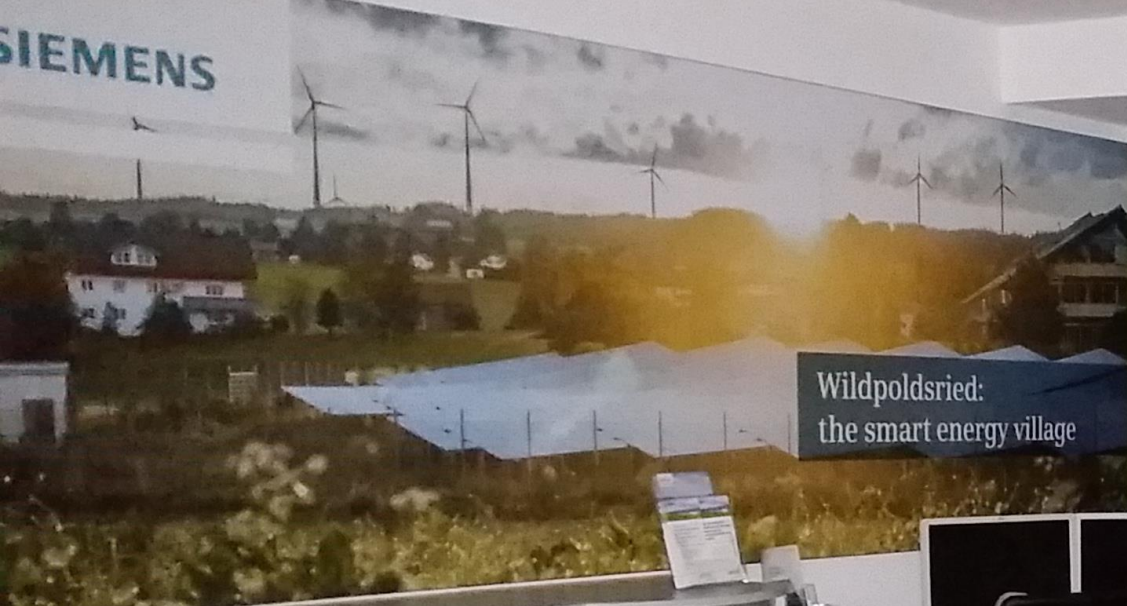
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Wegglas
Für alle Plasten

Wegglas
Für alle Plasten

Wegglas
Für alle Plasten

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Wildpoldsried:
the smart energy village

How a distributed energy supply works – economically and safely.

A tradition of openness: The citizens of Wildpoldsried began investing in renewable energy as early as the mid-1990s. In 2015, they generated five times more energy from biogas, solar, and wind than they consume. And the trend is upward. This makes the municipality an ideal location for research.



IRENE project

2014-2017

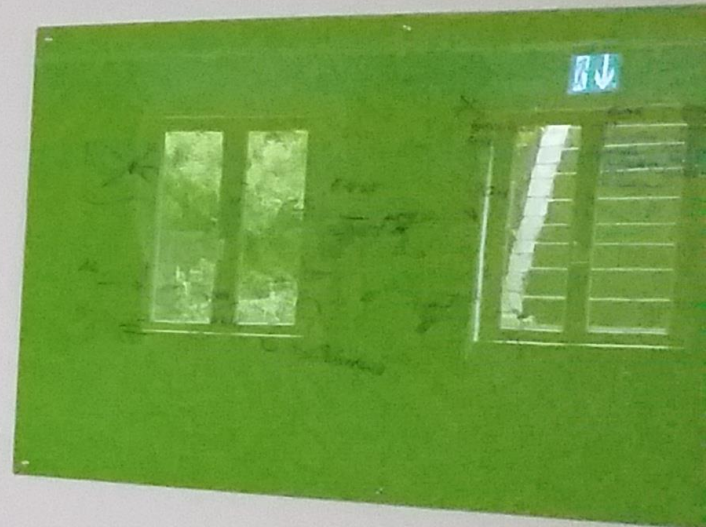
Since its inception, IRENE has increased the energy efficiency of the grid. The project focuses on the distribution grid. The main goal is to reduce the energy losses in the distribution grid. This is achieved by optimizing the distribution grid and by using smart meters. The project also includes the installation of smart meters and the optimization of the distribution grid.

IREN2 project

2018-2021

The goal is to develop an autonomous energy grid that has a high degree of flexibility. The IREN2 project is a pilot project for the distribution grid. The main goal is to develop an autonomous energy grid that has a high degree of flexibility. The project also includes the installation of smart meters and the optimization of the distribution grid.

- Our partners
- AÜW
- Alpenregion
- EWTH
- IDKOM



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Conclusion!

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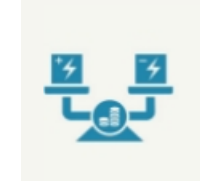
- Island grid operation –
disconnected from main grid



Use as a topological power plant



Stable, economically optimized
grid



IREN2 is globally relevant

The research work involved in IREN2 shows that microgrids and topological power plants can be achieved with a calculable outlay. They have a wide range of potential applications.



Dalibor Marković

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The citizens of Wildpoldsried

Since the 1990s, Wildpoldsried has been involved in sustainable energy systems. During this time, Wildpoldsried evolved from a simple community in the Allgäu to an internationally renowned energy village. This is thanks in part to the Siemens projects IRENE and IREN2.

None of this would have been possible without the citizens of Wildpoldsried. From the beginning, all of them have been driving this development.

Here, Mayor Arno Zengerle, energy producer Wendelin Einsiedler, and energy pioneer Günter Mögele introduce their village.