The Feldheim Project:
Energy self sufficiency and local added value through Renewables
A joint project of Energiequelle GmbH, the farmer’s cooperative and the residents of Feldheim
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Energiequelle GmbH since 1997
Based in the federal state of Brandenburg

Wind Energy
727 WTGs in Germany and France
1,294 MW

Photovoltaics
33 photovoltaic plants in Germany, Spain and Italy
67 MWp

Biogas
18 biogas plants in Germany
12 MW
of electric power

Power Grid Operation
20 high-voltage substations in Germany with 1.743 MVA

Storage
1 energy storage facility in Germany
10 MW

date: 30.06.2019
The village of Feldheim

Feldheim is home to around 130 residents.

Geographic situation:
Around 90 km southwest of Berlin
Travelling time to Berlin: 1.5 h by car or by train.

In 2002, the village lost its status as independent community being incorporated into Treuenbrietzen, a town of around 8,000 inhabitants.
Farmer’s cooperative ‘Fläming’

- Emerged in 1990 from the formerly GDR Agrarian Production Cooperative (‘LPG’)
- Many Feldheim residents are members
- 35 staff
- 1,700 hectares, less favoured soil productivity, no natural water courses
- Predominantly fodder crops / energy plants (mais, rye), some forestry
- Pig breeding: 600 sows / 10,000 piglets/y
- 400 head of dairy cattle
- Biogas plant (electricity and heat)
Feldheim biogas plant

- Commissioned in 2008
- Installed power: 526 kW
- Inputs: 8,600 m³ manure (pig, cattle)
- Output/y:
  - 4,200 MWh (el)
  - 4,000 MWh (th)
- Heat is used to cater households for heating and hot water
- Ownership: Farmer’s cooperative 50%, Energiequelle 50%.
Feldheim wind farm

- 60 turbines with 140 MW installed power (2019) Mostly on real estate of farmer’s cooperative and/or other Feldheim residents

- Total output: 300,000 MWh/y. (aprox. 85,000 households)

- 1,000 MWh/y consumed in Feldheim via a direct underground cable

- 300,000 MWh/y. fed into public extra-high voltage network.
2008/2009 cable link wind farm between village and...
Local power distribution grid and district heating network
Biomass boiler

- Wood chips from surrounding forest industries, property of farmer’s coop.
- Power: 299 kW(th)
- 2 buffer tanks of 45 m³ each
- Comes in on very cold days
Formation of 'Feldheim Energie' (2007)

A residents owned utility company with the purpose: Safe, local, economical and ecological supply of heat and electricity organized by and under the responsibility of the citizens; independence from the grids of conventional power utility companies.
## Feldheim Energie - Facts & Figures

### District heating:
- Total investment: €1,725,000
- Equity: €138,000
- Subsidies: €830,000
- Loans: €757,000
- Commissioned: December 2009
- Basic charge: €29.95 per month
- Price per kWh: 7.5 cts
- Consumption: ~1.8 million kWh p.a.

### Power grid:
- Total investment: €450,000
- Subsidies: €0
- Commissioned: October 2010
- Basis charge: €5.95 per month
- Price per kWh: 16.6 cts
- Consumption: ~1 million kWh p.a.
2015: Battery storage facility

- Lithium-Ion-technology
- Power: 10 MW
- Capacity: 10,7 MWh
- Grid connection: Feldheim wind farm
- Commercialization: Primary balancing power

3,500 visitors per year
Information and training centre around Renewables
At a glance:
Increased local added value; civic participation

- Residents earn additional income through leasing real estate for wind turbines (+ 'energy tourism')

- Farmers decrease their dependence from volatile prices for traditional farm products

- New jobs for less-favoured rural areas and securing the existing ones (technical and commercial operation of wind farm, biogas plant etc.)

- Low power prices (17 €ct/kWh vs. 30 €ct/kWh)

- All inputs produced locally, thus local added value

- Tax revenues for the local treasury (income tax, corporate tax, etc.)

- Revenues through 'energy tourism'
Auf Wiedersehen im Energieautarken Ortsteil Feldheim