System Configuration by AIT

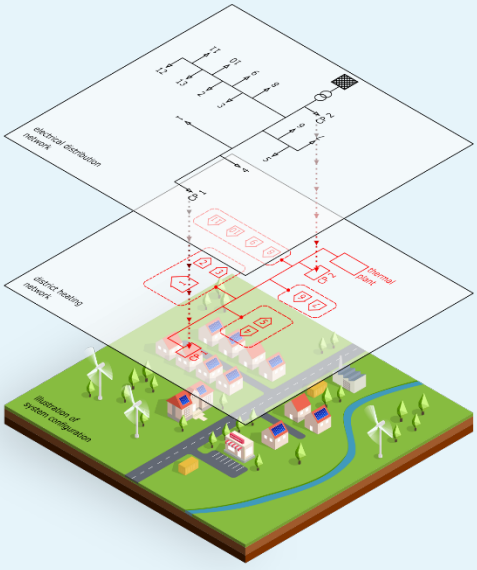
SmartDorf

by Benedikt Leitner

SmartDorf is a fictional village or part of a small town with a structure typical for the rural area of Austria. It is hosting a small number of residential homes, offices and workshops.

Technological aspects

- SmartDorf comprises a low-temperature district heating and low-voltage electric distribution network with a high share of photovoltaic generation
- Electric boilers are installed in the district heating network with the aim to further increase the self-consumption of photovoltaic generation at a network scale



Environmental aspects

- Climate is typical for Central Europe with its moderately warm summers and cold winters
- High availability of biomass, high share of hydropower, local wind production is geographically limited

Political aspects

- Austria is committed to international climate targets
- Strategy: improving energy efficiency, renewable energy generation, security of supply
- Numerous incentives for the promotion of renewable energy and energy efficiency exist

Economic aspects

- Several active players on the liberalised electricity market
- Austria has static electricity rates where real energy costs, distribution costs and taxes have a nearly equal share
- Current market regulations do not allow the remuneration of flexible energy use

Social aspects

- Socio-economic profile of the SmartDorf is typical for rural areas of Austria
- People are considered to have a highly positive attitude towards smart energy technologies

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