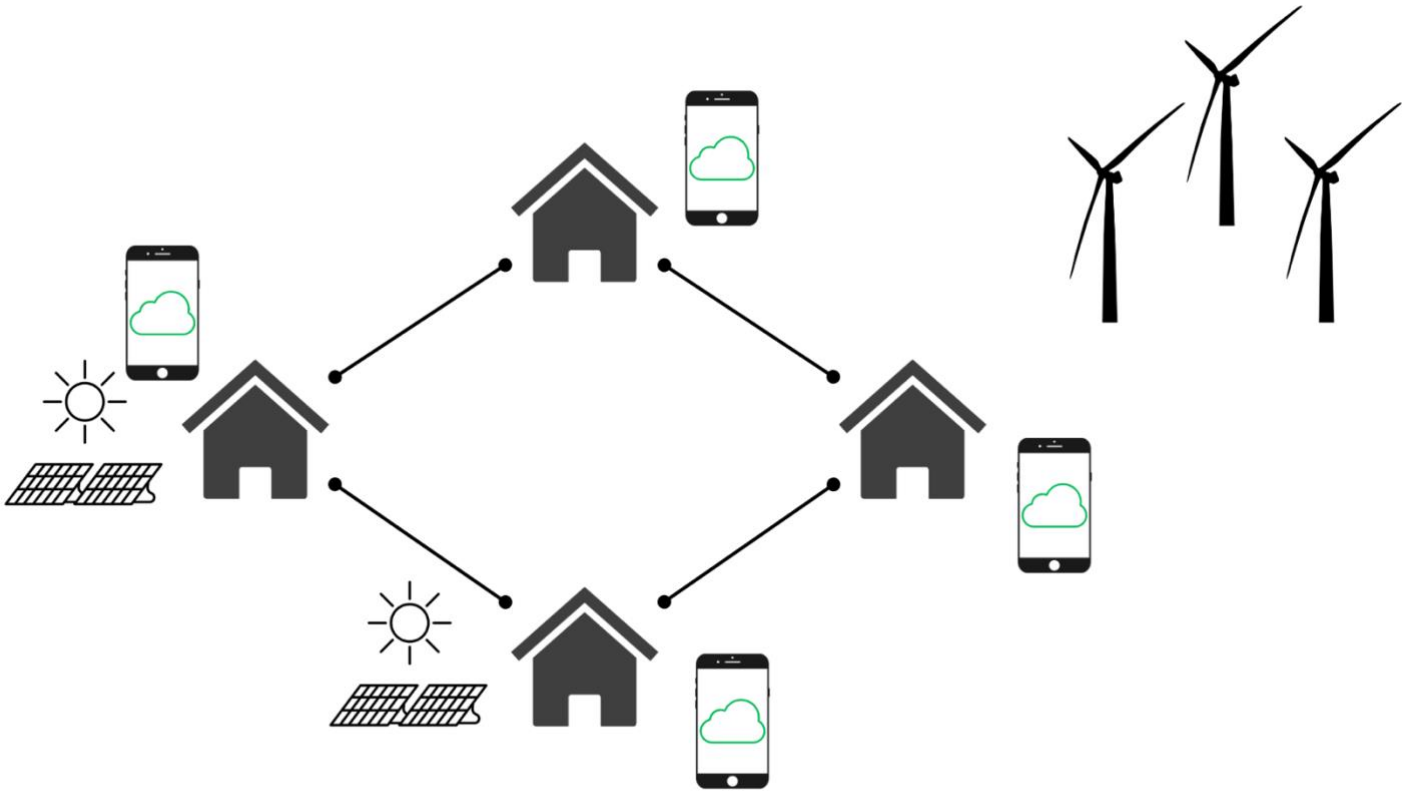
key-energy

Energize Pro

The EnergizePro energy management system enables the end customer to manage the energy purchased from energy suppliers as well as self-produced electricity (for example, by using a solar system) in a software database.



Functionality:

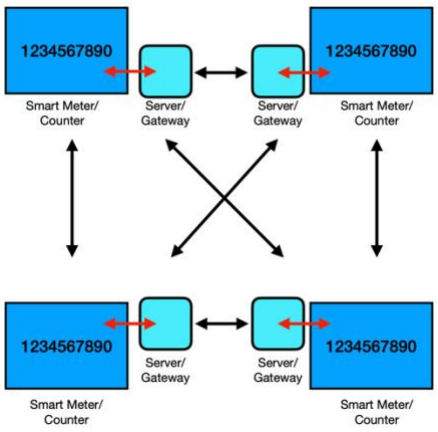
Each consumer has their own "server" that allows them to interact with everyone else on the network. This intelligent system enables efficient use of electricity within the system. The system also communicates through a decentralized control system where the data is managed. The principle is based on a decentralized database system.

The same data is stored in each system, which provides better protection against possible manipulation of central control systems. It defines which consumers can be supplied with external surplus energy or how much energy from in-house production (photovoltaics, storage, etc.) is available to other suppliers. Customers form their own network where all data is managed.

The software manages all servers on the network (homes, businesses, schools, etc.), allowing for the most efficient use of energy within the network. All data is encrypted in transit, all servers are connected to each other via IP Ethernet, which ensures reliable data exchange. With the energy management system, end users can exchange their electricity autonomously and act completely independently.

With this feature, the consumer network could also be operated completely without electricity producers. This method represents a unique exchange and communication in the network.

For example: Smart meter or similar (electricity meter) with a server and what the communication could look like (star-shaped)



Power Distribution

Since surplus energy from the company's own system can also be passed on in the system, this value can also be set by the customer. It is possible to choose either a fixed power that is fed into the network or a dynamic value that exceeds the self-consumption at a given time.

The server can communicate with the smart meter or a separate meter that transmits the system's accurate data. The consumers are controlled directly from the server. All consumers of the respective customer are listed in the software of the gateway and can be activated individually for the network system or, if desired, remain in self-management.

This interaction between consumers - power - energy and producers results in a unique and forward-looking system. Consumers can be, for example, dishwashers, washing machines, heaters, pool pumps, charging stations, etc.

Management of Surplus Energy

EnergizePro also represents an approach to the exchange of electricity between end customers, which can significantly increase the efficiency of the power grid. Existing smart grid solutions only concern the relationship between the energy provider and the consumer. In the future, end consumers will increasingly become electricity producers with their own photovoltaic systems, whereby energy from storage systems can also be regulated and controlled between end users. EnergizePro can therefore also ensure the independent operation of consumers among themselves.

In the best-case scenario, conventional smart meter solutions transmit the data with a delay of 15 minutes and therefore cannot be used in different applications. EnergizePro uses a separate counter to generate data, so it has real-time data.