Foto: IfaS

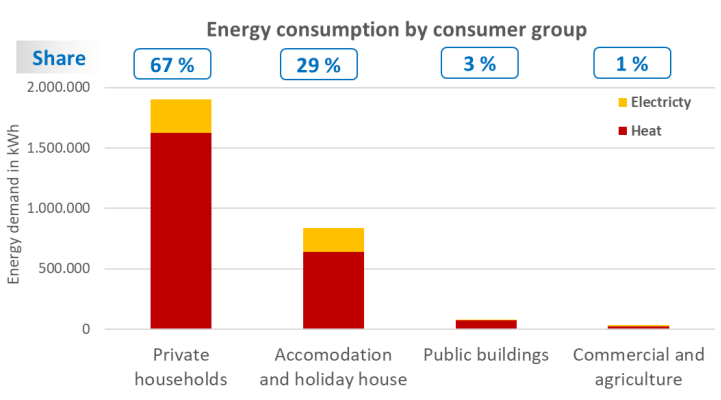
Viscri
A village full of potential

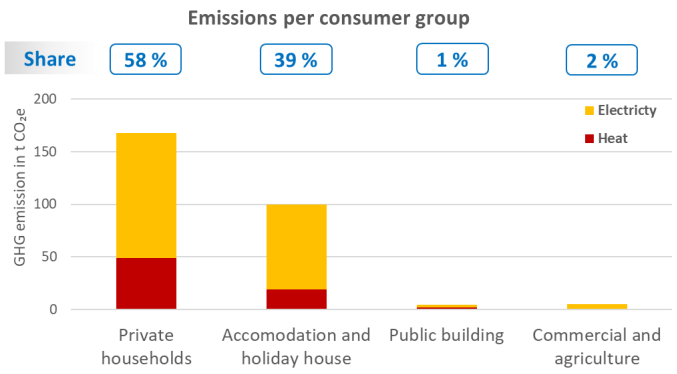
Addressing Change - Pathways to Increased Resilience for a Special Village!

Viscri is listed as a UNESCO World Heritage Site. This special status brings advantages, especially through tourism, which brings money into the region. But it also poses hurdles, such as reconciling the energy transition and monument protection. To increase the resilience of the village, the village was thoroughly analysed from 2021 - 2024 together with local stakeholders. Based on this analysis, the current state was documented and the potentials for the use of renewable energies, such as solar energy and biomass, were determined. A comprehensive catalogue of measures was developed so that these potentials can be exploited by the village in the future.

Status Quo analysis: Where does Viscri stand in terms of heat and power consumption?

The village draws most of its electricity from the public power grid and is therefore highly dependent on it. Wood accounts for 97% of the heat, with liquid gas and solar thermal making up the rest. The heat supply is thus mainly based on a single energy source, which means that there is also a dependency here. Heat requires the most energy. However, since this energy comes from wood, there are few greenhouse gas emissions here. The electricity required comes from the public grid, which means that the main share of green house gas emissions is generated here.





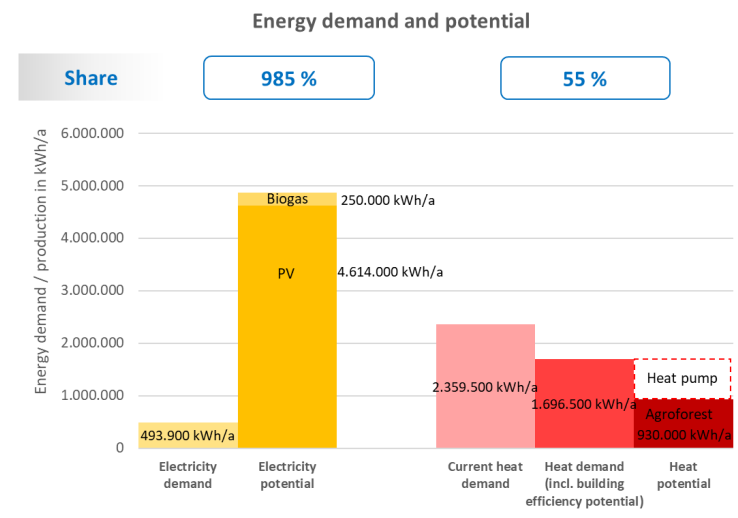
What is a "kWh"?
The unit kilowatt-hour (kWh) describes the consumption or generation of energy. When an electrical device with a power of 2.000 watts (W) runs for one hour, it has consumed 2 kWh (or 2.000 Wh) of energy.

What are "GHG" and "CO_2e"?
The abbreviation GHG stands for greenhouse gas emissions. They can be measured in units of CO_2 equivalents (CO_2e). The quantity is used to standardize the impact of different greenhouse gases on the climate.

2021

The end energy demand is around 2.853 MWh
The GHG emission is around 292 t CO_2e

Target balance 2050: How can the village's heat and electricity consumption develop?



The potential analysis has shown that the village can generate nine times its own electricity needs just by expanding photovoltaics. At the same time, a local, sustainable wood industry can strengthen the heat supply. The large PV potentials enable the use of electricity in other sectors, such as heat supply or mobility. This sector coupling diversifies the village's energy supply and makes it more resilient.

Viscri can become an energy exporter by 2050!

The INTERCORUM project

Project title
"Interactive coaching for the development of three resilient villages in Romania based on renewable energy considering biomass potentials in a biodiverse cultural landscape in Transylvania"

Goals of the project
- Initiate the transformation of villages into resilient villages
- Three villages as "pilot projects": Marpod, Cincșor, and Viscri

Most important topics
- Utilization of the potential of renewable energies
- Energy-efficient, resource-conserving and ecological neighborhood development
- Climate-friendly, future-oriented tourism
- Sustainable land use in agriculture and forestry

Project duration
10.02.2021 – 30.06.2024

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