



Energy Plan Vilhelmina, Sweden

Jokkmokk collaborated with Vilhelmina municipality by sharing its experience on developing strategic sustainable energy plans. The following basic assumptions have been made:

Energy use within Vilhelmina municipality shall be characterized by efficiency and sustainability from a long-term ecological perspective. This means, among other things, the efficient use of electricity and a gradual phasing out of fossil fuels in favor of renewable energy sources. Vilhelmina municipality's own energy production shall be based on renewable fuels as widely as possible. Energy efficiency is the main and overall target for the energy plan.

On this basis, a proposal for quantified targets and concrete policies and measures has been made. Energy use in Vilhelmina municipality's real estate portfolio would be more efficient by at least 2 percent per year.

Investment and payback time

18 231 MWh (2015) are assumed as baseline for energy use in public buildings. Savings in a 2022 would be about 1823 MWh per year, which means cost savings of about approx. 2 Mio Euro. Experience shows that a 10 percent saving in existing building stocks can be realized at low costs by behavior change and optimizing existing systems of ventilation, heating systems and lighting. However, both monitoring and controlling of energy use, education in energy efficiency for users and smaller optimization of technical systems needs to be implemented, which makes it necessary to set up an energy efficiency project management with assumed staff and investment costs of 500 000 Euro.

Energy saving plan

Asset owner: Vilhelmina Municipality, Sweden

Used assets: Energy saving measures

Energy savings: 1823 MWh/year

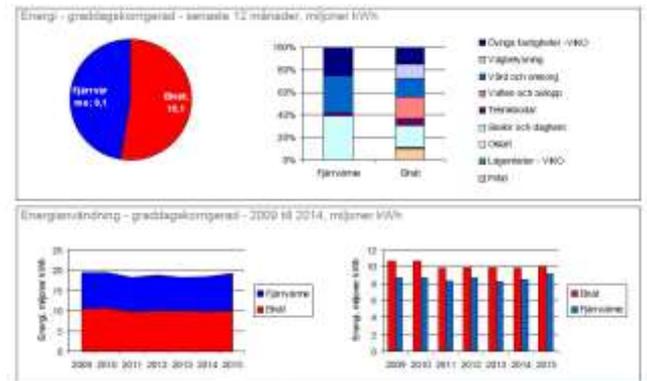
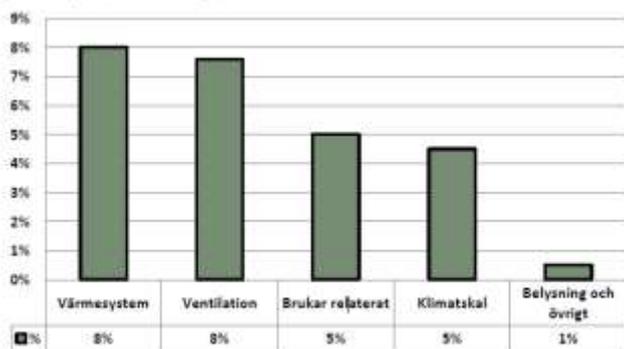
CO₂ reduction potential: 1660 t

Investment costs: 500 000€

Payback time: 4 years

Assets

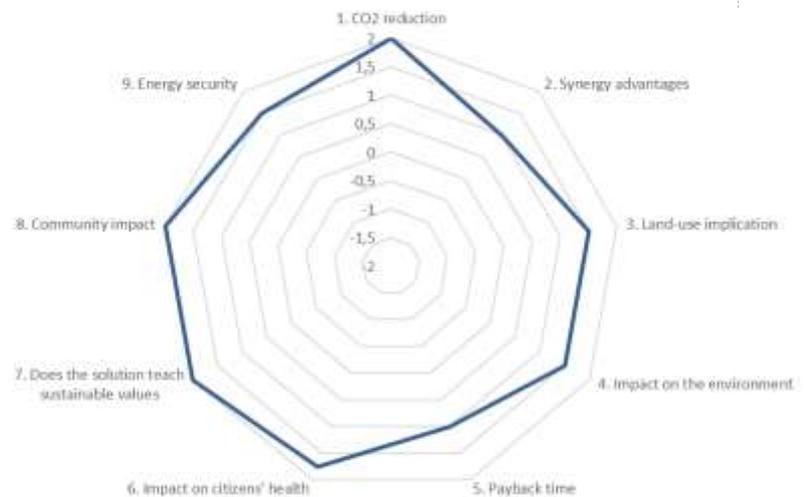
A feasibility study for public buildings in Vilhemina municipality has been done in 2012 which results in a 27 percent energy efficiency economic potential. Highest potential relates to heating and ventilation. Despite that fact has the energy use in municipal buildings been quite stable between 2009 and 2014.



Conclusions

Swedish local authorities are owner of many facilities which use a significant share of energy. Energy cost are a relevant burden. However, small municipalities in the NPA area often lack staff capacities and know-how about potentials and have difficulties to prioritise projects. Projects like RECENT are very well needed to support the transformation towards low-carbon municipalities, but can fail if the response capacity of possible pilot communities is too low. Three things are needed:

- Political leadership and a long-term legal framework on climate protection to make climate and energy a priority on local, national and European level.
- Experience exchange and capacity building for politicians, administrative staff and craftsmen
- EU or national funded projects which fight brain-drain in small NPA communities by capacity building of individuals.



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