

CASE STUDY

USE OF RENEWABLE ENERGY IN UTILITY COMPANIES

Kekava's public utilities transitioning to green energy sources



Background

Kekava's public utility company SIA Kekavas Nami, owns and manages 27 boiler houses in the area that provide district heating to the municipality outside of the summer months. Up until two years ago all of the boiler houses were powered by natural gas.

Two years ago, with rapidly rising energy costs and increased energy insecurities due to the war, the company invested more than €1.69 million (39.1% co-financed by EU Cohesion Fund) in the refurbishment of one of their boiler houses and made the shift from gas to locally sourced wood chips.

The switch has been a learning process for the company. Results to date taking into account all related costs, suggest no price difference between the gas and wood chip heating source.

Benefits

- The switch to locally sourced wood chips increases energy independence and resilience for the municipality
- Making the switch to this local renewable energy source reduces the company's carbon footprint

Challenges

- The flagship project encountered some additional unexpected costs in this learning by doing stage
- The new system requires a longer heat up time of approximately one week to reach optimum temperatures

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Background

Kekava's public utility company SIA "Baložu komunālā saimniecība" developed and manages the largest solar power plant in the Ķekava region, located beside its waste water treatment facilities in the town of Baloži.

At the end of 2022, when electricity prices were skyrocketing, the project got underway. The concept was influenced by Kekava's twin municipality of Bordesholm in Germany, where solar batteries are used to supply all of the electricity needed for the locals' self-consumption.

The project implementation required an investment of €167,000 and the money needed was borrowed from SEB Bank. The wastewater treatment facility uses about 30% of the electricity generated during peak times. The surplus electricity is sold to the grid and the company is confident of a relatively quick return on investment.

Benefits

- The solar panels allow energy independence and resilience for the plant and reduces the carbon footprint
- Surplus energy is sold to the grid and supports repayment of the investment

Challenges

- During the winter months, from November to February the plant does not produce the required energy needs for the plant and so it has to be purchased from the grid

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