

OptiWatti use cases January 2019





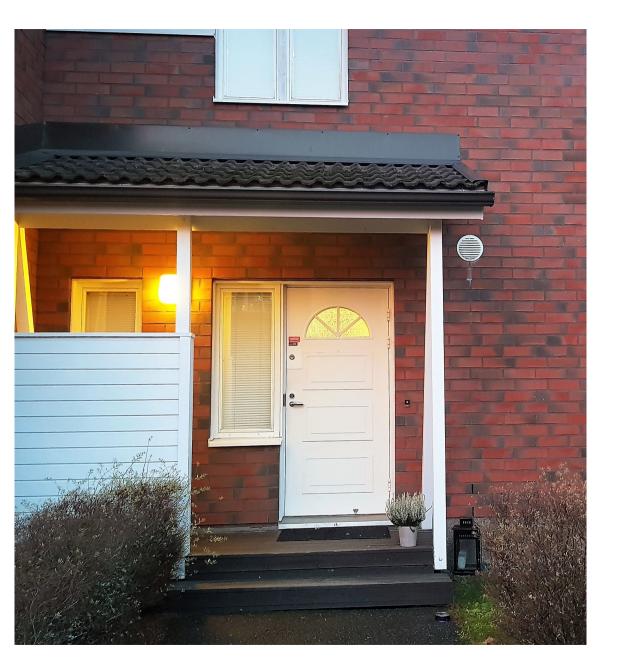
Energy renovation of detached house

Two-floor log house with a space of 160 m². Electric heating combined with air-source heat pumps in both floors.

Annual electricity consumption before OptiWatti was 30 000 kWh. After installing OptiWatti the consumption decreased by 9 000 kWh and **saving exceeds 900 €** each year.

"Main reason for us to buy OptiWatti was to save in the high heating costs. On top of that we are really happy save environment at the same time."

Tapio Lampinen House Owner



Heating costs of row house halved

Two-floor row house with a space of 77 m^2 .

The annual costs of electric heating used to be 1200 – 1400 €. Now with OptiWatti the costs are ca. 700 €. The saving in heating costs was 50 %.

"The application is easy to use. The installer showed how to take the first steps and the savings started immediately. I have been quite excited with this new tool to manage our home's energy."

Mikko Pennanen House Owner



OptiWatti helped to sell detached house

Two-floor row house with a space of 143 m².

Year before OptiWatti the house consumed electricity 16 000 kWh. In the first year with OptiWatti the consumption decreased to 12 000 kWh. When taking into account the difference in outside temperatures between the years, the saving in heating costs are estimated to be 3 200 kWh, which equals 40 % drop in the heating costs.

"In the spring 2018 we sold the house within **2 weeks,** whereas the average sales time in the area is 17 weeks. Energy efficiency of the house made a big difference to the buyer."

Pekka Väisänen House Owner



Nursery in Oulu

With OptiWatti the heating is optimised by taking into account each of the rooms are used.

Previously the building was fully heated 24 hours, 7 days a week.

In the nursery the usage has a predefined weekly schedule, which provides remarkable saving opportunities.

After introduction of OptiWatti the total electricity consumption **decreased by 36%.**

"OptiWatti is easy to use. After the initial setup, the system controls heating by itself. I believe the roombased heating optimization will be the dominant solution in the future – and OptiWatti does it already today."



Juha Vattulainen Property Manager City of Oulu



Remote control of property on the island

"We compared various systems and **OptiWatti was the most advanced** solution. It suits also for bigger properties. Unique features include room-level control, remote control and alarms for temperature and air humidity.

Smart technology helps us to keep the building in good condition and to save energy. Every saved kilowatt hour saves also environment by reducing CO2 emissions."

Jori Nordström Act. CEO Suomen Meripelastusseura





Module hostel in Porvoo

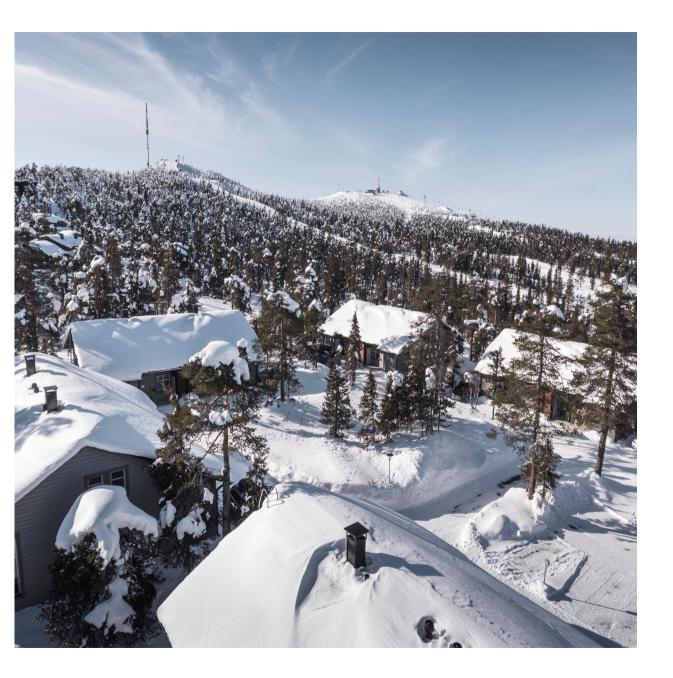
"Before OptiWatti we were able to decrease energy consumption by manually adjusting the heating radiators in the hostel, but it was really labour intensive. That gave us the idea to streamline operations with smart technology.

Electricity consumption and CO₂-emissions have reduced dramatically with OptiWatti. In the first month we **saved electricity by 21 000 kWh, which equals ca. 31 % saving** in heating costs. We monitor the savings carefully and the experience has been so far extremely positive. "

Juuso Mäenpää Project manager Forenom Oy







Cabins in Ruka Ski Center

"We tested OptiWatti in a two-month period and the experience was convincing. We measured electricity consumption in two similar cabins: test cabin was optimized with OptiWatti and the results were compared to the control cabin. Test showed that heating costs can easily be cut down.

Sustainability and environmental values are crucial for us. The cabin owners are happy both of the reduced heating costs as they have a major impact to the total maintenance costs as well as to improved value of the property due to smart and modern technology."

Mikko Hänninen Deputy Landlord Ski-Inn Hotels & Apartments Oy / Rukakeskus Oy



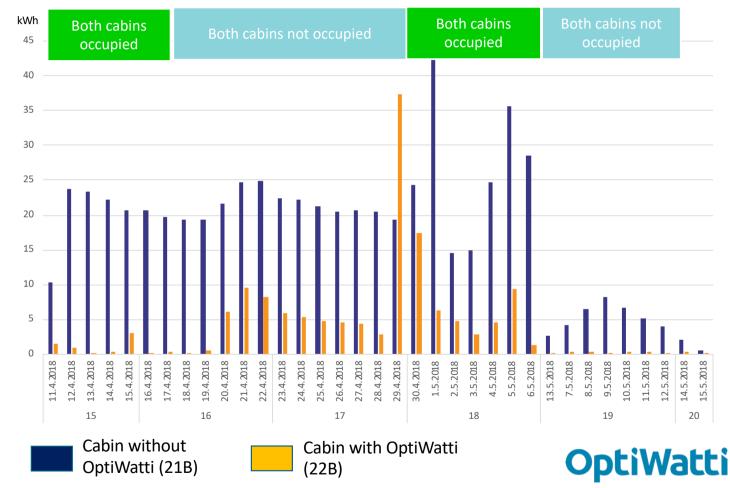
Ruka MastonAitio: OptiWatti Test

Goal: Measure heating costs with and without OptiWatti.

How? Energy consumption of two comparable cabins were compared. Heating of Cabin 22B was controlled with OptiWatti and it was benchmarked against cabin 21B which had no OptiWatti installed.

When? 11.4-15.5.2018.

Results: 77 % lower use of heating energy in the cabin with OptiWatti.





Improved comfort in office building

"Our goal is to be the best landlord to our tenants and an attractive alternative to potential clients. In the case of Scifi Alfa office building our key priority was to increase client satisfaction by providing **always optimal working temperatures** in the various parts of the building.

OptiWatti made this possible without any extra energy costs. Now the cold indoor temperatures in the winter and hot in the summer are history. This has helped us to rent out empty spaces. I can warmly recommend the solution to similar locations".

Petteri Virkajärvi Asset Manager IVG Polar Oy





Kindergarten



Public sauna and swimming place

Examples of OptiWatti-controlled premises in the city of Valkeakoski



Kindergarten

Valkeakoski



Ski resort



House of friendship



Art center

