# Case Study Solo II and Fortum





#### Fortum Kotinäyttöä (Solo II) – delivers clear savings of 25%

The Fortum Kotinäyttöä (Solo II energy monitor) has changed the Kaski family's electricity usage habits – consumption has decreased by almost 10 000 kilowatt hours saving money.

In prime place on the kitchen worktop stands the family Kaski's 'thingy', Fortum Home screen – Solo II. The calmly engaging display shows and alerts the daily electricity consumption to three decimal places. For today it shows 73.580 kilowatt-hours. You feel the need to check out the consumption numbers when walking by.

The sons of the family Timi, 17, Miko, 15, and Karo, 12, can already check out the home screen, if someone is in the sauna if the electricity consumption is higher than usual. The boys love the sauna, and are always ready to enjoy it when it's heated. Sometimes even three times a day. The sauna takes the biggest share of Kaski family's electricity consumption. "Yes, we need some luxury here," says Jarmo Kaski - Father.

## Smaller electricity bill

The family has lived in Hausjärvi Hikiä since 2006, since when the house was completed. The electricity bill for the brand new house seemed amazingly high. The house has direct electric heating and two heat pumps, the usual appliances, several personal computers and a flat-screen TV - and the sauna. Satu Kaski - Mother, wanted to know how their electricity bill could be reduced.

In 2012, the Kaski's purchased the home screen from Fortum. "At first we wondered whether the device would be worth having", Jarmo recalls.

Was it worth paying a couple of hundred euros for the equipment, for which they had no previous experience? Soon, however, the figures spoke for themselves. Their electricity consumption fell dramatically. *"Although we are still some way off the lowest consumption"*, Satu laughs.



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## Our electricity use got more efficient

The Solo II home screen allows Kaski to see how individual home appliances affect the consumption of electricity. As soon as the cooker, kettle, or the TV is turned on, the Home Screen reacts to the electricity consumption. The information from the display has made the whole family check their own electricity usage habits.

*"I remember to turn off the lights when leaving the room and close the computer," says Timi. "The use of appliances has been reduced", replies Miko. "I turn my lights off," confirms Karo.* 

The parents checked thoroughly how the electricity consumption could be further reduced. They quickly found more improvements: they set the heat pumps so that they do not heat at full power when family is absent during the day and the under floor heating doesn't need to be at full setting overnight. Kaski started also used the fireplace more and checked all of their light bulbs.

*"They take up a surprising amount of electricity,"* the family "light police" Satu notes.

Instead of an ordinary incandescent light bulb, they replaced many of their bulbs with the glow of a halogen bulb.

### The whole familys home screen - Solo II

Satu is the one in the family who gets excited about technical equipment and acquires them. Jarmo, in turn takes them to use them. So it happened this time as well, Satu ordered the Home screen Solo II by phone from Fortum and got it mailed to her workplace. Jarmo checked the instruction manual and installed the device and quickly got it up and running.

The home screen allows real-time electricity consumption monitoring, either in euros (money) or in kilowatt-hours.

"The fun would be lost if we could see at all times in Euros, so we chose kilowatt hours," Jarmo says.

The home screen wireless transmitter was easy to attach to the smart meter, which is located in utility room. Then they needed to find a place that had a good signal from the transmitter. A suitable location was found in the kitchen. Since then, everyone has been following the "thingy" readings. Reducing the electricity consumption has become a challenge for the whole family.

## FACTS

Family Kaski's solutions: Satu Kaski and Jarmo and his family live in a detached house in Hikiä, Finland. They follow their electricity consumption with the help of Fortum Home Screen Solo II and Fortum Alert service.

#### Electricity consumption reduction:

Start = 2011: 34 000 kWh Year 1 = 2012: 31 500 kWh Year 2= 2013: 25 500 kWh

#### Fortum Valpas alert

Fortum Valpas alert is a free service where you can see electricity consumption and district heating usage by hour with a delay of one day. Satu Kaski use the alert service on the Internet and on mobile phones. After acquiring the Fortum Home screen she set a consumption target to Fortum alert service, which was reached in 2013.

#### Fortum Home screen Kotinäyttöä -Solo II

Includes a display device and a wireless transmitter for tracking electricity consumption, either in euros or in kilowatt-hours. Fits most single-family, semi-detached and terraced houses, where residents have access to the Electric Box, and have a new type of remote-readable electricity meter.



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