



How to cut your power bill by half

When Klaus Langenberg decided to renovate his home he was unaware of how powerful smart home technology can be. Despite increasing the residential property by 100 square meters, Klaus was able to save 3,400 Euros each year on his electricity bill.

Location:

Oslo, Norway (capital of Norway)

Challenge:

Transforming a residential home into an energy efficient smart home.

Solution:

xComfort

Results:

A significant energy consumption reduction from 50,000 to 20,500 kw/hours per year.

Contact:

Klaus Langenberg –
Klaus.josef.langenberg@gmail.com
– phone: 0047 900 88 044

Eaton Key Point of Contact Information:

Torill Bergem Os, torillos@eaton.com or Mattis Wennemo mattis@iteo.no (Mattis is the author for this piece).

“I had no idea that the electricity bill would be reduced by more than 50 percent. Especially as my house has increased by over 100 square meters.”

Klaus Langenberg

A charming house in Norway proves to be a great example of what smart home technology can do for both your wallet and the environment. When Klaus Langenberg decided to renovate his house, he opted for a complete makeover and added over 100 square meters to the house. Additionally, he installed Eaton's smart home solution, the Eaton xComfort which would control both lighting and heating throughout the property.

“My initial thoughts were that the electricity bill would be about the same because of the increase in size of my home. So, I got very excited when I understood the power of Eaton's xComfort system. Furthermore, I am so proud to live an energy efficient life,” commented Mr. Langenberg.

Langenberg points to his iPad.

“This is where the magic happens. Through my iPad I have full control of the house. I can schedule different modes for when the temperature should decrease or increase. The temperature management is the main reason why I have successfully reduced the electrical costs with more than 50 percent,” says an ecstatic Langenberg, and he adds “And the best thing is that it's fully automatic. No worries and no unnecessary energy spent”

In addition to installing Eaton's xComfort system, Langenberg has also strengthened the insulation in his walls, changed windows and switched from radiator heating to electrical underfloor heating.

Wireless smart home system

Before renovating his house, Langenberg had a yearly power usage of 50,000 kW/hours. Even though the house is significantly larger now, he uses just 20,500 kW/hours per year – a reduction of nearly 60 percent, which gives the Langenberg family an annual saving of 3,400 Euros.

Mr. Langenberg went on to comment, “my family is trying to live very eco-friendly, and I'm a very detail-oriented person. After conducting a thorough research process to find the right smart home system, it was clear that there was one provider and product that stood out; Eaton xComfort.”

Eaton has over twenty years of experience building smart home solutions, which includes 13 years of experience in wireless solutions such as the one Langenberg has installed.

“I love the fact that the system is wireless. When we want a new lighting switch we just stick it on the wall – no need to drill holes in the walls, no wires



Powering Business Worldwide

necessary – it's simple and works immediately. This is what everyone should expect from technology in 2018," says Langenberg, who works within IT.

The family is also pleased that the Eaton system can connect to other smart home applications.

"I feel very safe with the xComfort system. Eaton is a quality driven and reliable provider that I expect will "be here in the coming decades" he comments.

"Why more people should install smart home applications?"

The environmental enthusiast opens the management app where he can get detailed reports on power consumptions divided into different rooms.

"As you can see, the dorm we sublet is only 55 square meters, but stands for 44 percent of the total energy consumption. The house in total measures 340 square meters, so there are still areas where we can improve energy savings" he says.

The power components in the house communicate wirelessly, and everything can be managed through a phone, tablet or PC/Mac.

"After installing the xComfort, my family and I have become even more aware of our energy usage thanks to the detailed reports. In less than two years

my savings will outgrow the investment costs, and at the same time it increases the value of my property. It is beyond me that people are not aware of the benefits that a smart home system can provide for their families, society and the environment. I guess it all comes down to knowledge – and that we need to educate people on how they can succeed with smart homes like what we have" commented Mr. Langenberg.

Customer usage limitations

Contact Mattis Wennemo if you change the text (in a significant way) - small changes to locally adjust the content is fine. If you don't think it is suitable to point out the reduction in EURO's because this will differ from market to market, you can use the percentage-reduction:

Energy spent before renovation: 50.000 Kw/hours per year

Energy spent after renovation: 20.500 Kw/hours per year

$50.000 - 20.500 = 29.500$
 $(29.500 / 50.000) * 100 = 59\%$
 reduction in energy spending.

Remember that the house also increased in size with over 100 square meters:

From 218 square meters over two floors to 337 square meters over three floors.



Room	Consumption (kWh)	Percentage (%)
Living Room	10000	20%
Bedroom	8000	16%
Kitchen	12000	24%
Bathroom	6000	12%
Hallway	4000	8%
Garage	2000	4%
Other	10000	20%

Device	Status	Control
Living Room Light	On	Off
Bedroom Light	Off	On
Kitchen Light	On	Off
Bathroom Light	Off	On
Hallway Light	On	Off
Garage Light	Off	On

Eaton
 EMEA Headquarters
 Route de la Longeraie 7
 1110 Morges, Switzerland
 Eaton.eu

© 2018 Eaton
 All Rights Reserved
 Publication No. CS003001NO / CSSC-1644
 November 2018

Eaton is a registered trademark.
 All other trademarks are property of their respective owners.

Changes to the products, to the information contained in this document, and to prices are reserved; so are errors and omissions. Only order confirmations and technical documentation by Eaton is binding. Photos and pictures also do not warrant a specific layout or functionality. Their use in whatever form is subject to prior approval by Eaton. The same applies to Trademarks (especially Eaton, Moeller, and Cutler-Hammer). The Terms and Conditions of Eaton apply, as referenced on Eaton Internet pages and Eaton order confirmations.

Follow us on social media to get the latest product and support information.

