

## Successful journey towards “One Tonne Life”: The Lindell family is already down to 2.6 tonnes of carbon dioxide per person per year

Just over three months into their “One Tonne Life” the Lindell family members from Hässelby have made considerable progress on their journey towards a climate-smart lifestyle. The family members have reduced their emissions by 64 percent to 2.6 tonnes per person per year, compared with the 7.3 tonnes with which they started when the project got under way in January.

“One Tonne Life” is a project in which A-hus, Vattenfall and Volvo Car Corporation together with their specialist partners ICA and Siemens created the pre-requisites for a climate-smart household. The challenge faced by the Lindell test family, consisting of father Nils, mother Alicja and children Hannah and Jonathan is to reduce their carbon dioxide emissions to one tonne per person per year. This corresponds to the level that will likely be necessary if we are to avoid disastrous climate change. For six months, the Lindells leave behind their 1970s family home and their almost ten year old cars and switch to a brand-new climate-smart wooden villa built by A-hus and a battery-powered Volvo C30 Electric. Vattenfall supplies the household with renewable electricity, innovative energy technology and energy coaching. ICA and Siemens are the project’s specialist partners in the areas of food and household appliances.

“So far we haven’t had to make any major compromises in our everyday lifestyle. The advanced technology has made the hunt for a carbon dioxide-leaner lifestyle easy and enjoyable. The difficult sacrifices are probably still to come. The last stretch down to one tonne will be far more difficult,” says Alicja Lindell.

### **Most progress in transportation and electricity consumption**

Transport and electricity consumption are the two areas in which the family have made the most progress.

Emissions from transportation have been cut by a massive 93 percent. The family’s Volvo C30 Electric is recharged with electricity from hydropower and when the Lindells went on their skiing holiday, they chose to travel by train. If during the spring the family choose to cycle more, their transportation emission levels can be reduced still further.

The family's test villa from A-hus is both a house and an electricity producer, making it difficult to compare with the family's own home. The new house has a wall coated with solar cells that produce roughly the same carbon dioxide footprint as the whole of the rest of the house. This is because the solar cells are made in Germany, which has an electricity production mix that features a high proportion of coal power. If the solar cells are included in the calculations for the house, construction of their new home causes somewhat higher emissions than is the case for their old house.

But that difference is more than compensated by the dramatic reduction in emissions from electricity production. The family's choice of renewable electricity from hydropower has cut carbon dioxide emissions to almost zero. What is more, the new house produces its own electricity. All told this means that emissions from their accommodation have almost halved.

"Vattenfall's smart Energy Watch is our own little 'pet'. After three months in the house, we are still very enthusiastic about the graphs and diagrams that show us how we're using our electricity," says Alicja Lindell.

### **Vegetarian lunch cuts emissions by half**

Other interesting details in the three-month report:

- Emissions from the food the family buys have been considerably reduced. The family focus enthusiastically on picking food with minimum climate impact. By actively varying their choice of meat and fish and by eating more green vegetables and root vegetables, emissions have dropped a lot.
- Emissions from eating out have dropped somewhat, but here there is more scope. By varying their diet with vegetarian lunches, emissions from restaurant meals can be further decreased.
- Emissions from other shopping and consumption have been halved. However, it is difficult to make further cuts in this category since most of these emissions are planted firmly in the "rucksack".

### **The "rucksack" makes the final sprint to one tonne a tough challenge**

The "rucksack" totals 900 kilograms of carbon dioxide per person per year. It contains those carbon dioxide emissions that take place during manufacture of the various products used, such as the house, the solar cells, the car, furniture and clothes.

"Researchers generally say that manufacture of cars, white goods and buildings is a minor problem. They cause more emissions during usage than during production. But this doesn't apply to us. Since the house, car and white goods are so exceptionally energy-efficient, most of their emissions took place during their manufacture," says Nils Lindell, and adds:

"That aspect is something we cannot affect and with a fixed "rucksack" of 900 kg, it's going to be tough to get all the way down to one tonne. But we'll do the best we can. Our know-how and our motivation are growing day by day!"

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Follow the Lindell family's challenge on [www.onetonnelif.se](http://www.onetonnelif.se).