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LAURI ERIKSSON

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LITTLE GIANTS **IN THE HOME**

Do you enjoy cooking, pick berries? How often do you shop or do the washing? When selecting home appliances, the best choice suits the user.

Text Linda Pynnönen

Before marching off to the store, it's a good idea to decide on three things: what kind of an appliance will fit in the space allowed for it, what kinds of usage requirements the appliance must fulfil, and how much one is prepared to pay for it.

"Within these preconditions, it is still good to compare the energy classifications of various machines," says energy expert **Marja Einesalo** from Helsingin Energia.

Domestic appliances are used very differently in different homes. People living alone should not buy a washing machine that takes a ten-kilo load, or they would have to wash part-loads every time.

People thinking of buying a fridge should think about their shopping habits. A small fridge is sufficient for someone shopping every day, but if you buy a week's groceries at a time, you need more storage space for them.

As for freezers, two small appliances can sometimes do better service than one.

"In the autumn the whole capacity is in use, when the summer's harvest is being frozen, and when the contents have diminished, one can be turned off," Researcher **Tarja Marjomaa** from the Work Efficiency Institute TTS suggests.

"The medium price range is perhaps the safest bet for equipment with good price-quality ratios," Marja Einesalo sums up.

Domestic appliances account for roughly one-third of total home electricity consumption. There can be large differences between appliances in energy consumption.

The mandatory energy labelling on domestic appliances expresses their energy efficiency on a scale A–G. The closer to A the device is placed, the more energy efficient it is. Nevertheless, you should not interpret the energy labels blindly.

"Many buyers of new equipment think that the consumption cited on the energy label is what it will consume in a domestic situation. But this is not the case," Einesalo says.

THE BEST APPLIANCE in terms of energy classification is not necessarily the most energy efficient in use. If there is plenty of empty space in the fridge after the shopping trip, it is probably too big. Refrigeration of empty space is wasted consumption, so that in such a case even the most energy efficient fridge consumes too much electricity in relation to the needs.

Domestic appliances account for roughly one-third of total home electricity consumption.

A fridge placed in a warm place, such as next to a radiator, cooker or dishwasher, uses 10–20 per cent more power than usual. Inadequate air circulation around the device can actually triple its consumption.

There are large differences in energy consumption between different cooker hobs. An induction hob uses 40 per cent less than a cast iron hotplate and 20 per cent less than a ceramic hob.

In ovens, a convector function saves energy, especially when baking several trayfuls, when the saving in electricity may be about one-third compared to an ordinary oven.

Although there are differences in the energy efficiency of cooking equipment, one's own actions can affect electricity consumption in the kitchen the most. Individual food portions and items such as ready meals should be heated up in the microwave oven, and the preliminary and residual heat of the oven utilised whenever possible.

"The time to start thinking about buying a new machine is when the old one no longer works as it should. If you suspect that the machine has started using more energy than usual, Helsingin Energia will lend you an electricity consumption meter, which will quickly establish the consumption of equipment," Einesalo says. ■

NATIONAL ENERGY AWARENESS WEEK 6–12 OCTOBER 2014

MIIKA KAINU

Part of life's changes

The autumn divides opinions. Personally, I love the cooling evenings and nature's brilliant colours, although the ending of the summer sometimes makes me wistful. A change is as good as a rest.

Here at Helsingin Energia Customer Service, the arrival of autumn shows in increasing activity. Many people move into new homes in the autumn, and students return to their seats of learning. When deciding on an electricity contract, more and more customers are interested in renewable energy and the origin of the electricity we produce. This supports our goal of a carbon-neutral future by the year 2050. Our next important step will be taken in Salmisaari, when the power plant starts to use pellets as fuel.

In recent years, our customer service has received several acknowledgements and awards. In the spring, the scores awarded by our customers raised the Helsingin Energia Contact Centre to the top position in Finland in the Voice of the Customer competition. Praise warms the heart, but ideas for development and constructive criticism are also welcome. We want our customers to be the most satisfied in future years, too. We cannot rest on our laurels, as the world around us is constantly changing.

We wish you an energetic autumn!

Tapio Yli-Kätkä
Energy Advisor

TEN LORRYLOADS OF PELLETS A DAY

The Salmisaari power plant will start co-combustion of pellets alongside coal at the beginning of 2015. The target of one of the biggest energy projects in Finland is to increase the share of renewable energy sources. Text Marita Kokko | Photo Nea Ilmevalta

Pellet combustion is due to start in both Salmisaari and Hanasaari. The Salmisaari power plant is undergoing huge construction works, which will reach the handover stage in December. In Hanasaari, the project is under preparation.

In the first stage, 5–7 per cent of coal will be replaced with pellets in the plants. Although the percentage is small, it corresponds to pellet consumption of 100,000 tonnes per year. It is estimated that the power plants would use over one-third of all pellets produced in Finland.

"This is one of the biggest renewable energy projects in our country. In the next phase, we will increase pellet use to 40 per cent or build a completely new multifuel plant in Vuosaari, using biomass, mainly wood chips, as its main fuel," explains Helsingin Energia's Communications Manager **Sanna Jääskeläinen**.

Next year, the City Council of Helsinki will decide which path to take towards the 2020 intermediate target. Helsinki will have completely carbon-neutral energy production in 2050.

Carbon dioxide emissions will fall in proportion to pellet combustion and the reduction in the use of coal. In 2020, carbon dioxide emissions will also have to decrease by 20 per cent on the 1990 level.

THE SALMISAARI POWER PLANT is still a huge construction site. The construction work includes two storage silos of one thousand cubic metres, a pellet reception station, conveyors to the power plant, and sampling equipment.

According to the manager of the project **Teemu Nieminen**, the construction project has progressed according to plan. The silos will be built on land that has been reclaimed from the sea. Therefore, laying the foundations was more time-consuming than expected, but the time will be made up for later on in the year.

"While Helsingin Energia invests in processes required in pellet consumption, it will also modernise the 30-year-old technology in the Salmisaari power plant. This will safeguard a high level of energy security in the city's district heating also in the future," says **Jyrki Itkonen**, Manager of the Salmisaari power plants.

The calorific value of a pellet is smaller than that of a piece of coal. When you need 70 tonnes of coal and 10 tonnes of pellets per hour, 10 per cent of the total energy is obtained with pellets.

According to Itkonen, in Finnish use, coal is not as black as its reputation. The coal used in Helsinki has an efficiency rate of 90 per cent, and flue gases are cleaned in a number of different ways. If all coal-fired power plants in the world worked as efficiently and the flue gases were cleaned as thoroughly as in Helsinki, global emissions of coal combustion would fall by least a half on the present levels.

"We also burn pellets at a high temperature with a good efficiency rate due to our power plant technology. As a result, emissions compared with small-scale combustion of biomass, for example, firewood, are low." ■

INVESTING IN BIOENERGY

Helsingin Energia starts using a mixture of pellets and coal as fuel in their power plants.

- Salmisaari will be the first plant to use pellets.
- the share of pellets in the fuel mix will be 5–7 per cent.
- a total of 100,000 tonnes of pellets a year will be needed at Salmisaari and Hanasaari.
- about 300,000 tonnes of pellets will be manufactured in Finland each year.
- just under 10 lorryloads of pellets will be transported to Helsingin Energia's power plant every day.

MOBILE DATA ON ENERGY USE

How much did the heating cost last year? How much electricity did we use last month? Sävel Mobiili is a service designed for mobile phones and tablet computers, offering the same information as the desktop version.

Sävel Mobiili operates in the web browser of the device, in other words there is no need to install separate applications for it. The service can be used on almost all touch screen devices with iOS, Android or Windows Phone.

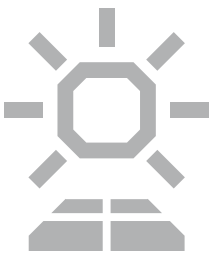
Log into Sävel Mobiili at **helen.fi/kirjaudu**. Instructions on how to register are also on the page.

Lotta Punkanen, an economics student from Aalto University, was elected the Energy Student of the Year. The prize was awarded for the first time, and the scheme was set up by Universum and Helsingin Energia. "Energy is enormously important for sustainable development. Everybody needs it, from private individuals to industries. I want to wake people up to be more aware of the role of energy in all our lives."

HELEN OY

From the beginning of 2015, Helsingin Energia will be known as Helen Oy. Helsingin Energia's name will change when the public utility will be incorporated as a new company. In practice, this means that the services will remain unchanged, only the company name and registration number will change.

Solar power plant in Helsinki



Finland's second biggest solar power plant will be completed in spring 2015 in Suvilahti, Helsinki, on the roof of Helen Sähköverkko Oy's substation. The solar plant is part of Helsingin Energia's journey towards a carbon-neutral Helsinki. You too have the opportunity of joining the journey by purchasing a panel for your own use for a monthly charge. Further information **helen.fi**

Billing changes

As of August, Helsingin Energia bills only have two account numbers for payments, those of Nordea and OP-Pohjola. In district heating bills, the payment terms have also changed on 1 August. The new payment term is 14 days from the date the bill was sent. The new information is clearly marked on the bills.

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Telephone calls received by Helsingin Energia customer service are recorded.