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Reporting service helps to save ¹

Helsingin Energia's new reporting service, to be introduced in stages, will provide hour-by-hour information on energy consumption and guidance on potential savings



Matti Välimäki Illustrations Anssi Keränen

Pensioner **Pekka Halko** writes down the electricity and district heating meter readings for his detached house every day.

“It’s a good way to monitor consumption and consider potential targets for savings”, Pekka Halko says.

The annual electricity consumption in the Halko household is 6,000 kilowatt hours, while in houses of similar size it is usually about 5,000 kilowatt hours. The estimated district heating requirement for the year is 33 megawatt hours. The Halko family use a lot of electricity on lighting, as they need plenty of light at their age. They could reduce their electricity bill, for example, by not using the stand-by functions of electronic equipment.

Besides economic reasons, Halko is also motivated to saving energy because of the climate change.

Help for saving energy

Pekka Halko has been monitoring his electricity and heating consumption at a monthly level through Helsingin Energia’s reporting service. Soon he and many others will have access to considerably more comprehensive reporting services online, yielding consumption information by the hour.

Jouni Lehtinen from Helen Sähköverkko says that the main idea of the hourly-level reporting is to help clients to save energy.

“For example, the reporting service shows exceptional electricity consumption. It motivates to look for reasons, perhaps to look at the role of stand-by functions.” The reporting service also lets you see directly how heating up the electric sauna raises consumption.

Initially, the hourly reporting service is available to about 150,000 households with

remotely read meters. The sites are mainly in the Pakila and city of Helsinki areas. During 2011–2012, the reporting will be offered to all electricity consumers in Helsinki, with the exception of the Östersundom area. All the remotely read meters will be included in the service by the end of 2013.

Set your own consumption target

Björn Söderström from Helsingin Energia tells us that comparative information to spur us into energy efficiency is also on the way for the reporting service.

“For example, you can set your own annual energy consumption target in the reporting service. The service keeps you constantly updated on progress.”

For now, electricity and district heating customers log into the integrated service using

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2 Environmental responsibility

In order to avert the climate change, resolute actions are necessary in all sectors. Recently, so-called feed-in tariffs have been prominent in the media as a means of supporting the construction of renewable forms of energy production. This is an important development area, for example, in increasing wind energy. Construction of planned wind farms, particularly those at sea, has not got under way in the way we had hoped. Helsingin Energia is one of the owners of Suomen Merituuli Oy. The company is actively engaged in assessing the feasibility of the implementation of two large wind farms. We are also involved as founder shareholders in the company Suomen Hyötytuuli, which produces almost half of Finland's current wind electricity.

Helsingin Energia's efficient combined heat and power generation is internationally renowned. At the same time, the fuels used have attracted criticism. Helsingin Energia is currently considering a development programme aiming to reduce carbon emissions to a fraction of present levels.

In accordance with the principles of free electricity markets, the electricity vendor implements its clients' wishes and values. Helsingin Energia's electricity sales business purchases its clients' power on the Nordic wholesale power market. The normal power that we deliver to our clients contains 59% of electricity produced from renewable energy sources, 19% from fossil fuels, and 22% generated by nuclear power. Besides normal electricity, we offer alternatives such as Environmental Penny electricity, whereby the client may make his own contribution to increasing renewable forms of energy generation.

The most important environmental decision is made when consuming energy and avoiding unnecessary energy use. Even if one purchases one's own energy from production methods that are totally emissions-free, it is not possible to produce the volume of total Nordic energy consumption without emissions. Our own energy use has an indirect impact on how much emissions-producing energy the market is obliged to produce. This is because, for example, Nordic hydropower generation is only sufficient to meet half of the Nordic electricity requirement.

At Helsingin Energia, we have deemed it extremely important to increase the awareness linked to energy use. We are providing our customers with increasingly extensive advisory services on energy saving, as well as services supporting energy saving. Our energy consumption reporting service is rapidly extending to showing energy consumption per hour, in line with the rate new remotely read meters can be deployed. This online magazine contains details of new opportunities.

Wishing you a very pleasant summer,

Sincerely,

Jukka Niemi
Director, HelenElectricity



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their own ID codes, but in the future both electricity and district heating consumptions will be found in the same place.

"It's worth a visit and boldly trying out the various actions and options of the service", Björn Söderström says.

Remote monitoring of equipment

Marko Ojajarvi from Helsingin Energia reminds us that the consumption of district heating is largely dependent on the outside temperature, so that hourly reporting may not be as directly useful as with electricity.

"On the other hand, hot water consumption volumes depend purely and simply on the user of the property. It is also true that in some households, the interior temperature could probably be reduced with no adverse effect on comfort levels."

In the future, the new reporting system may also enable remote monitoring of the equipment.

"With district heating being so trouble-free, people tend not to visit the heat distribution room very often. Hourly reporting would give instant information on untypical consumption, and in cases of equipment faults, repairs could be started immediately."

New service is Sävel+

Helsingin Energia's new reporting service, Sävel+, is at www.helen.fi/raportointi.

The reporting service is available to all electricity and district heating customers. Hourly information is available on sites with a remotely read electricity meter or district heating meter.

For all Helsingin Energia and Helen Sähköverkko Oy customers, hourly electricity metering information will become available along with the installation and deployment of remotely read meters in the next few years. All district heating meters will be remotely read and within the service by the end of 2013.

The service already provides monthly-level consumption information to all Helsingin Energia customers.



3

Searching for green electricity

New renewable energy generation has real impacts on the climate. Reducing electricity consumption is an unequivocal climate deed.

Green electricity refers to power produced by renewable energy sources: wind and hydropower, biofuels and solar energy. Different energy vendors market green electricity under their various product labels, and sometimes it is also called eco-electricity.

An EU Directive is about to bring a guarantee of origin also to Finnish legislation. It is a guarantee to the purchaser of green electricity that it is produced using renewable energy sources.

Emissions cannot be marketed as zero

Finland is a part of the Nordic power market where a good 50 per cent of electricity produced is generated using old hydropower. Hydropower is also the cheapest possible electricity to produce, as the plants have been paid off.

The majority of green electricity sold in Finland is produced in hydropower plants.

If everyone in Finland wanted hydropower, half the population would go without, since there are hardly any new sources available. Additional building has been stopped for environmental reasons. Most of the environmental electricity certified by the Finnish Association for Nature Conservation is old hydropower. The certificate criteria are stringent. It aims to reduce the environmental impacts caused to nature directly by hydropower and to encourage improvements, such as construction of fish ladders and other restorative measures.

“When electricity is sold on the basis of its origin, an opportunity also arises of not supporting energy produced from non-renewable sources”, says **Teemu Kettunen**, head of eco-energy at the Finnish Association for Nature Conservation.

By buying green electricity, one can dangerously sit back and believe that one’s own consumption doesn’t matter – after all, it is emissions-free. This may cause consumption to grow and emissions affecting the climate to increase. However, energy-efficiency is a climate deed over all others.

“No green electricity consumption should be marketed as producing zero emissions. This may easily lead to thinking that as far as the environment is concerned, one can use as much electricity as one wants”, Kettunen says.

Most important to build new plants

WWF’s Head of Climate Change Programme **Karoliina Auvinen** agrees. In her view, buying green electricity may be an environmental act, but not always a climate deed.

“From the climate aspect, there is no doubt that reducing electricity consumption is the most important act for everyone.

Therefore, if one wants real climate impacts, it is good to think where one puts one’s money.

Every person’s power purchasing guides the energy producers’ production decisions and affects future investments. The larger the volume of new renewable energy purchased, the more plants pro-



ducing it are built. This way, energy production is gradually moved onto a more sustainable basis.

In Finland, the share of bioenergy of electricity produced from renewable energy sources is the second largest after hydropower. The bulk of it is wood-based byproducts utilised in forest industry processes. The potential of increasing other bioenergy production in Finland is considerable, and growth in its demand adds pressure to build new production capacity.

The share of wind power of total electricity production is still very small – 0.4 per cent. There is only sufficient wind power for a few customers. Consequently, purchasing electricity generated by wind power increases the pressure for more production capacity.

More emissions-free electricity

The electricity sold to Helsingin Energia’s customers is mostly obtained from the Nord Pool Power Exchange. In the normal electricity sold, the share of renewable energy sources is 59 per cent, fossil fuels 19 per cent, and nuclear power 22 per cent.

Helsingin Energia offers its customers the opportunity to make a difference through its Environmental Penny product. By purchasing Environmental Penny electricity, the customer has the choice of a 1,000 kWh quota of electricity produced either by wind power or Vantaankoski museum hydropower. The electricity costs EUR 1.68/mth more than normal electricity. Helsingin Energia channels EUR 3.36 /mth for each Environmental Penny customer to a special Environmental Penny account, the funds from which are used to increase the production of carbon-free electricity. The fund has already reached about EUR 1.3 million, and some of it has been spent on building more wind power.

4 Notification of price changes

Electricity prices will rise on 1 July 2010. Increase in the value added tax rate contributes to the price rises.

- Electricity distribution prices in Helsinki will go up by an average of 9% as of 1 July 2010.
- At the same time, value added tax will also rise by one percentage point to 23 per cent.

The increase in distribution prices varies between 5% and 11% for typical customer groups, depending on the distribution product and the amount of electricity consumption. The increase is based on the current substantial investments, including remote reading of meters, increased network automation, and significant upgrade and extension of the electricity network. With the investments, we will be able to offer new services for our customers and to improve the reliability of electricity distribution.

As a result of the increase in electricity distribution prices and value added tax, the basic charge for distribution of general electricity will rise by €0.50 per month and the energy-based distribution price by 0.32 cent per kilowatt-hour. In time-of-day electricity, the typical basic charge for customers with electric heating will rise by €1.90 per month, the price of dayti-

me distribution will rise by 0.02 c per kilowatt-hour, and the price of night-time distribution will rise by 0.22 c per kilowatt-hour. Electricity tax will rise by approx. 0.01 cent per kilowatt-hour as a result of the increase in value added tax.

Customers with time-of-day distribution with controlled night-time load will be sent a separate letter on the price increase.

The price increase is based on sections 13.3, 13.4 and 13.5 of the Terms of Electricity Supply and sections 13.2, 13.3 and 13.4 of the Network Service Terms. Helen Sähkö-

verkko Oy previously adjusted its distribution prices on 1 July 2009. According to the terms of contract, customers may terminate their contract in connection with the price increase by giving two weeks' notice.

In Helsinki ^{*)}, Helen Sähköverkko Oy is in charge of the electricity network operations. The company is part of the Helsingin Energia Group, which is owned by the City of Helsinki. ■

**) With the exception of the Östersundom area, which was annexed to Helsinki on 1 January 2009.*

Examples of the price increase including the impact of the rise in value added tax:

	Annual consumption kWh/a	Increase in distribution costs		Distribution costs after the increase €/month
		€/month	%	
Apartment	2,000	1.05	9.6%	11.96
Detached house, no electric heating	5,000	1.90	8.6%	23.75
Detached house with electric heating	18,000	4.35	6.6%	70.60

Distribution prices in Helsinki as of 1 July 2010 (incl. 23% VAT)

Distribution of general electricity	
Basic charge €/month	4.10
Distribution c/kWh	3.63

Distribution of time electricity	
Basic charge €/month	15.10
Main fuse up to 80 A	
Daytime distribution c/kWh	3.44
Night-time distribution c/kWh	2.23

Basic charge (€/month) if main fuse is 100 A or over	
100–125 A	59.04
160–200 A	130.38
Over 200 A	199.26

Electricity tax (tax class I)	
c/kWh	1.08609

The size of the main fuse for new customers on the distribution of general electricity may not exceed 3 x 63 A if annual consumption exceeds 5,000 kWh.

*The distribution price for weekday distribution of time electricity is in force from Monday to Friday between 7am and 8pm. The night-time distribution price is in force at other times, as well as on May Day Eve, Midsummer's Eve, Christmas Eve and New Year's Eve. The basic charge for distribution of time-of-day electricity is determined according to the main fuse size of the customer site. The size of the main fuse for new customers on the distribution of time-of-day electricity may not exceed 3 * 80 A.*

Electricity tax is charged for all electric energy distributed to customers via a distribution network. Excise duty on electricity and the strategic stockpile fee are included in the electricity tax charge.



5 General electricity sale price will increase on 1 July 2010.

- All electricity contract prices will rise as a result of the change in the value added tax rate.
- The tax-free sale price of electricity for electric heating will be unchanged.

The new general electricity sale prices will enter into force as of 1 July 2010.

Helsingin Energia will increase the general electricity sale price as of 1 July 2010. The energy price for general electricity will rise by 0.60 c/kWh and the basic charge by €0.02/month. The new prices are presented in the enclosed price list. The prices of Environmental Penny and Electricity Basket products will increase correspondingly.

The rise is based on the increase in electricity procurement costs. Electricity procurement costs consist of, e.g. future electricity price hedgings, the daily wholesale price level, structural costs, as well as other costs including wages and salaries. A corresponding increase based on the rise of electricity procurement costs was implemented for electric heating products on 1 April 2010.

The sale price for a typical apartment (annual consumption 2,000 kWh) will rise by around €12 per year to approx. €156 per year. The effect of the price increase on the sale prices will be 8.5%.

The electricity sale price for a typical detached house (annual consumption 5,000 kWh without electric heating) will rise by about €30 per year to approximately €353 per year. The effect of the price increase on the sale price will be 9.4%.

Change in the value added tax rate
The change in value added tax rate will raise the sale prices of all electricity contracts according to its impact as of 1 July 2010. The unit prices in accordance with the new value added tax rate will be stated on the customer bills. The energy prices of time-of-day and seasonal electricity products presented in the enclosed price list will rise by 0.04–0.06 c/kWh and the basic charge by €0.02/month. The price without value added tax will not change in this connection.

The price changes are based on the increase in electricity procurement costs with respect to general electricity, and on the change in the value added tax rate resulting from legislative changes with respect to all electricity products. The price changes are based on sections 13.3, 13.4 and 13.5 of the Terms of Electricity Supply and sections 8.3, 8.4 and 8.5 of the Terms of Electricity Sales. According to the terms of contract, a contract that is valid until further notice may be terminated by giving two weeks'

Prices as of 1 July 2010 (incl. 23% VAT)

General electricity

Basic charge €/month 2.02
Electricity c/kWh 6.57

Time-of-day electricity

(night-time hours/week)	A (85–120)*	D (40–84)*
Basic charge €/month	2.02	2.02
Daytime electricity c/kWh	7.11	6.52
Night-time electricity c/kWh	5.74	5.74

Seasonal electricity

Basic charge €/month	2.02
Winter-day electricity c/kWh	6.99
Electricity for other times c/kWh	5.84

Basic sale price of Environmental Penny electricity is €3.71/month. The energy prices are the same as in the corresponding normal products.

*) The time-of-day product to be applied depends on the number of weekly night-time hours in the time division used by the local system operator. This number is given in brackets. Currently, the number of night-time hours in accordance with Time-of-day electricity A is used in the areas of Helen Sähköverkko Oy and Vantaan Energia Sähköverkko Oy. Other areas are using the number of night-time hours in accordance with Time-of-day electricity D.

Terms of sale

The products are meant for household customers with permanent and holiday residences with a main fuse of up to 63 A.

The contract and prices are valid until further notice. The prices include value added tax at 23%.

The prices do not include electricity distribution.

Value added tax to increase on 1 July 2010

The value added tax rates will change on 1 July 2010. The general tax rate will rise from 22 per cent to 23 per cent. The new price lists for sale, distribution and services are available on our website at www.helen.fi.

In electricity billing, the 22% tax rate will be applied to the portion that is allocated for the time before 1 July 2010 and 23% to the time thereon. The portions with different tax rates are presented on the bill.

Price list for households in Helsinki as of 1 July 2010 (including sale, distribution, electricity tax and 23% VAT)

Electric energy	Electricity distribution *)	Total incl. electricity tax	price
General electricity			
Basic charge €/month	2.02	4.10	6.12
Electricity c/kWh	6.57	4.72	11.29
Time-of-day electricity A			
Basic charge €/month	2.02	15.10	17.12
Main fuse up to 80 A			
Daytime electricity c/kWh	7.11	4.53	11.64
Night-time electricity c/kWh	5.74	3.32	9.06
Basic charge €/month			
100–125 A	2.02	59.04	61.06
160–200 A	2.02	130.38	132.40
Over 200 A	2.02	199.26	201.28

General electricity

The size of the main fuse for new customers on the distribution of general electricity may not exceed 3 x 63 A if annual consumption exceeds 5,000 kWh.

Time-of-day electricity A

The size of the main fuse for new customers on the distribution of time electricity may not exceed 3 * 80 A.

The price of daytime electricity is in force from Monday to Friday between 7am and 8pm. The price of night-time electricity is in force at other times, as well as on May Day Eve, Midsummer's Eve, Christmas Eve and New Year's Eve.

The prices include value added tax at 23%.

*) The distribution price is stated inclusive of electricity tax in tax class I with value added tax, which will be 1.08609 as of 1 July 2010.

6 News

Satisfied customers

Helsingin Energia's customers are exceptionally loyal. They also feel the most customer satisfaction towards their electricity supplier. Our clients believe that Helsingin Energia genuinely thinks of the best for the environment and the customer.

These facts emerge from the EPSI Rating 2009 survey, carried out to map the customer satisfaction and loyalty rates of Finnish power companies. About 2,000 telephone interviews were conducted, asking customers for their assessments of their own electricity company, its image, whether or not it fulfilled their expectations, technical quality, quality of service, price-quality ratio and loyalty. Helsingin Energia is the undisputed leader in all of these. Next in line are the other local electricity companies, the third is Fortum and fourth Vattenfall.

Carbon-neutral future

Helsingin Energia's development programme towards a carbon-neutral future is currently progressing through the city's decision-making organs. The sizeable production investments proposed in the development programme create a foundation for reaching the climate targets. A considerable increase in the share of renewable energy sources holds the key position.

7 New terms of contract for the supply and sale of electricity and for the electricity network service, valid as of 1 July 2010

Helsingin Energia and Helen Sähköverkko Oy are introducing updated, general terms of contract for the industry, recommended by the Finnish Energy Industries; the Terms of Electricity Sales and the Terms of Electricity Supply with respect to Helsingin Energia, and the Network Service Terms with respect to Helen Sähköverkko Oy. The terms of contract have been approved by the consumer authorities. The new terms related to customer contracts are enclosed with this magazine.

The change is based on legislation change, an essential change in circumstances, a reformation of outdated contract or pricing arrangements, and implementation of measures necessary for energy saving. Some minor amendments to the terms of contract have also been made, but these have no impact on the key contents of the contractual relationship.

The key changes resulting from legislation are:

- the sections on metering and billing have been updated to comply with the Government decree on determination of electricity supply and metering
- the section on the right to withdraw from a contract sold through distance selling in compliance with the Consumer Protection Act has been specified
- the definition of the obligation to deliver has been amended to comply with section 21 of the Electricity Market Act

The key changes as a result of an essential change in circumstances, a reformation of outdated contract or pricing arrangements, and implementation of measures necessary for energy saving are as follows:

- the time limits concerning the collection/compensation of metering or billing mistakes have been revised
- a payment term of 14 days may be used in billing
- sections concerning the method of electricity delivery and defects in quality have been specified with respect to the customer's responsibilities
- the electricity sales/network service may be started after 14 days of signing the sale/network contract at the earliest, unless otherwise agreed
- the new terms of contract include an obligation for the user to notify of any changes having an impact on the electricity sale/supply contract.

The consumer is entitled to cancel the contract without a notice of termination within 30 days of receiving the information on the changes in the terms of contract. This period shall be 15 days in the case of a user other than a consumer. The right to give a notice of termination does not apply to customers with a fixed-term contract. For customers with a fixed-term contract, the new terms of contract will enter into force as soon as the current contract period comes to an end.

● AT YOUR SERVICE Service numbers and price info

Helsingin Energia

Telephone 09 6171
Sähkötalo, Kampinkuja 2,
FI-00090 Helen
www.helen.fi

Customer service, 3rd floor

Mon–Fri 8.30–16
June 24: 8.30–15
Telephone service Mon–Fri 8–18
Thu June 24: 8–15
July 5–August 15:
Mon 8–18, Tue–Fri 8–16
Domestic customers 010 802 802
Business customers 010 802 803
Electricity meter readings 010 802 804

Fault reports

Breakdowns in electricity supply
08001 80808
Breakdowns in district heating supply
08001 60602
Faults in outdoor lighting 08001 73173
Telephone calls received by Helsinki Energy customer service are recorded.
Call charges for numbers beginning with 010:
• from landlines: 8.21 c/call + 5.9 c/min.
• from mobile phones, all operators: 8.21 c/call + 16.9 c/min.
The prices include VAT at 22%.
Our free e-services are available on our website: www.helen.fi

Advisory services

Energy Advisory Centre 09 617 2726
Advice on how to choose and use domestic appliances. You can also borrow energy, moisture, structural, surface temperature and light meters from us:
energiakeskus@helen.fi
Advice on electricity use and energy saving
09 617 4010

District heating

New connections to district heat
09 617 2961
Advisory service on heat use
09 617 2969
Billing and consumption enquiries
09 617 2856

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