

## Survey: Heating costs a significant financial burden for many homeowners in Finland

**Bulletin 29.5.2020. 38% of consumers who responded to the ASSIST project's Home Energy Survey in Finland, found household's heating expenses as a significant financial challenge, and many also reported compromising their living comfort to save money on heating. The survey was conducted in a targeted manner, between August 2019 and January 2020, and disseminated with ASSIST project's Finnish collaborative partners. Further research is needed into the causes and manifestations of energy poverty in Finland.**

The heating costs were significant (21%) or very significant (17%) for more than a third of respondents of the ASSIST home energy survey, taking their household's income into account. A total of 329 responses were received. The questionnaires were distributed between August 2019 and January 2020 with the assistance of ASSIST Home Energy Advisors (HEAs), and collaborative partners and companies involved in elderly work and energy counseling. The survey was targeted at consumer groups that were previously identified as being at risk of energy poverty [1].

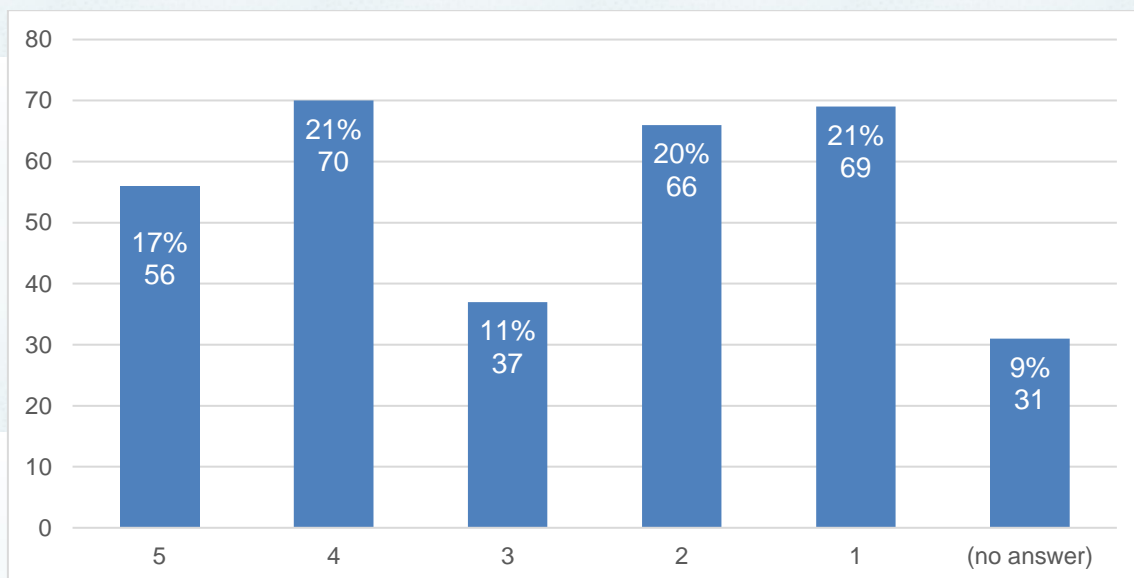


Figure: Answers to the question "I consider the heating costs of my household as a significant financial burden considering the income of my household". 5 = Strongly agree; 4 = Agree; 3 = I do not know; 2 = Slightly disagree; 1 = completely disagree ; no answer = no answer. N = 329.

The typical respondent was a retiree living in a detached house. Responses were received evenly from around Finland. Almost half (44%) of those facing challenges with energy costs used oil as a form of heating. This finding is in line with the Ministry of the Environment's finding that oil heaters are an energy poverty risk group. Otherwise, experiences of the significance of energy costs were fairly evenly distributed among respondents using different heating fuels and types.

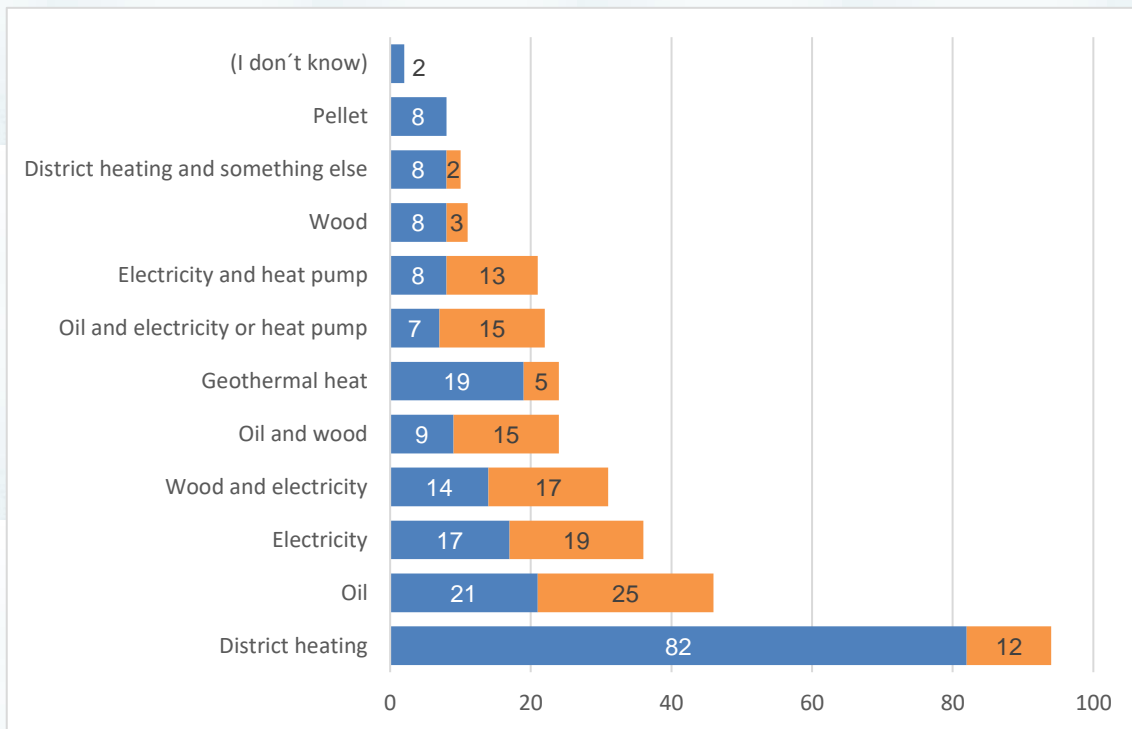


Figure: Respondents' form of home heating. Oil was the most typical form of heating for vulnerable consumers. Respondents who perceived heating costs as a significant financial challenge are marked in orange, other respondents are marked in blue. Those using geothermal energy or pellets experienced the least challenges with heating costs.

### ***Consumers know that lowering the indoor temperature is the most effective way to shrink the energy bill***

Respondents proved to be quite aware of the impacts of different types of energy saving measures. 90% of respondents reported to know how to save energy through their consumption habits and different purchases. Respondents who were financially burdened by energy costs felt more confident. Half of the 44 consumers interviewed by phone in January 2020 said having already taken every possible measure to save in energy costs, but the desired heating system renewal or an energy efficiency renovation would be difficult or impossible to implement in their own situation.

Dissatisfaction with indoor temperatures turned out surprisingly high among respondents: as many as 15% of all reported being dissatisfied (80% satisfied; 5% no answer), which may indicate heating problems, but also economic difficulties. Dissatisfaction with temperature was higher among those living in apartment buildings (27% of apartment building inhabitant responders). Interviews with homeowners highlighted the tendency to save money by lowering room temperature, as it was known to be the most efficient way to save in energy costs. This was sometimes done even at the expense of one's own comfort.

The survey results imply that there is energy poverty in Finland. Qualitative interviews provide a picture of homeowners who are living thriftily, partly because of their house or their heating system, and partly due to their lower income. The position of such households could be improved by new and more targeted energy efficiency and

renovation grants or support mechanisms. More research would be needed on the experiences of disadvantaged Finns in terms of living comfort and energy costs.

	<b>Respondents who consider the heating costs being a burden</b>	<b>All respondents</b>
I know how to save energy through consumption habits and purchases	94 %	90 %
I know the share of my household income spent on energy	90 %	74 %
I know where to get energy advisory if needed	74 %	68 %
I can help others to save energy and related costs	64 %	62 %
I am satisfied with the indoor temperature at home	83 %	80 %

VaasaETT mapped the experiences of Finns within the framework of the ASSIST project ([www.assist2gether.eu](http://www.assist2gether.eu)), which studies energy poverty and is funded by the European Commission. The Home energy surveys were disseminated and collected in the winter of 2019-20 with the help of the ASSIST project's collaboration partners in Finland: The Finnish Association for the Welfare of Older People, Metropolitan Youth Housing Association, Aalto University, The Finnish Village Movement Association, Lämmitysenergia Yhdistys and Lämmöllä magazine, Motiva Oy, Valonia, Ekokumppanit Oy, Kuopio City Energy Advisory, Feasib Consulting, Thermopolis Oy and Satakunta Energy Advisory. You can read more about the results of the survey in the [survey report \(in Finnish\)](#).

The Home Energy Survey was part of a larger study of the ASSIST project. You may read about European result from the [Final report on HEA Network Activity, Saved Energy and Increased Comfort](#).

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**About the publisher:**

The ASSIST project ([www.assist2gether.eu](http://www.assist2gether.eu)) is a coordination and support project funded by the European Commission to study the manifestations of energy poverty in six European countries and opportunities to support vulnerable consumers, including



through energy advice and policy recommendations. In Finland, the partner of the ASSIST project is VaasaETT Oy. The project will run from May 2017 to June 2020, and the final results will be published in June–August 2020. The ASSIST project has received funding from the European Union's Horizon 2020 Project Research and Innovation Program under Grant Agreement No. 754051. The views expressed are those of the authors and do not necessarily reflect the official views of the European Commission or EASME.

## ***Consumers' comments on their own home's energy use and savings***

The selection of consumers that were interviewed in January 2020 was based on the consumers' survey responses and their identification as potentially belonging to the risk group of energy vulnerable consumers. These consumers were asked about their experiences of their own energy saving opportunities, energy cost management and home energy efficiency. Selected comments below.

*"I use quite little of energy, as I live in a wooden house and I live alone. --- It [energy saving] is reflected in all actions. --- I have LED bulbs, which everyone now has. [Other times] I light a few candles and then I am in dark. However, I have my own sauna, so I use 10,000 kWh a year, sometimes less, and I heat all the water myself and have electric heating, then it really isn't a lot. I monitor my consumption online a couple of times per month, or at least when the electricity bill comes. My house is 150 years old and it could be made a little more energy efficient if you had the money. --- People living in wooden houses understand it, they are used to having woolen socks on their feet. I keep it rather cold here where I live. There is 18-19 [degrees] on the meter." (Detached house inhabitant, electric heating, Turku)*

*"I live in a relatively old [built in the 50s] house with original insulation, so getting this insulation and thus saving --- has been calculated many times over and it would be so expensive that I rather buy electricity directly with that money and I make some small repairs. I'm content with [less consumption and] cool [temperature]. That's what it has been. And of course, when electricity has been the main form of heating, I have been able to continue with firewood.--- More than half of the house is heated with wood, as a form of support it [wood heating] is considerable, so when I'm able to continue moving around it saves good amounts every year." (Detached house inhabitant, electric and wood heating, Jämsänkoski)*

*"I keep track of that [oil price], frankly every day. That market price when it's sold, and that purchase price when it's bought. --- I write the electricity meter number down once a week. I write down all my consumption once a week." (Detached house inhabitant, oil heating, Paimio)*

*"We are a two-person household, we don't have many ways how to save anymore. We cannot do miracles. In connection with the kitchen renovation, all appliances were replaced for energy efficient ones. --- Life teaches, over the years it [many things] has been learned. I have always been interested in energy." (Detached house inhabitant, geothermal, Harjavalta)*



*"We regulate the temperature pretty carefully, then there's a wood fireplace that heats up. We know how to be thrif [with the wood usage]. --- When you are retired, your income is not high, you have to think carefully about where to put your money". (Detached house inhabitant, oil, outdoor heat pump and wood heating, Mikkeli region)*

*"[We live in] an old house. We removed the sawdust insulation as we know it does not warm up [the house]. We have insulated, replaced windows, coated surfaces. While it has been a basic upgrade, it has also signified energy savings for us: the heat doesn't escape and we received smalled heating bills. Yes, we often wonder what further options there would be. The baking oven is on, it heats up the house every other day. A heat pump is such an expensive investment that it doesn't even come to mind. And with the current electricity prices, it wouldn't even come to mind using it for heating." (Detached house inhabitant, wood and electric heating, Pohjola)*

*"I already had LED bulbs in the 90s. I have less than 1,000 kWh [monthly electricity] consumption, at best less than 800 kWh, while the average is 1,500 kWh for people living alone. --- We are already at the level that you really need to know exactly, if you want to know where to save." (Apartment building inhabitant, district heating, Kuopio)*

*"A lot happened through those light bulb exchanges [to more energy efficient ones]. Then also through living in the dark and reading newspapers with a headlight. And through not using yard lights, neither indoor lights. They cannot be used if you want to save electricity. We have around 12 yard lights because we live in countryside and it is really dark here; at this time of the year there is no snow either so you see nothing without lights. But they cannot be used, or we don't dare to use them. However, for safety reasons, they are kept on with a motion sensor because there are bears, wolves and lynxes wandering around here." (Detached house inhabitant, electric and wood heating, Pieksämäki)*

*"I have done everything to save in energy expenses, but unfortunately I cannot shift to geothermal heating [from oil and wood heating] because I cannot afford the related high investment costs. I have reduced electricity consumption and use LED lighting. The indoor temperature is kept below 20 degrees, at the expense of our comfort; we keep the energy costs moderate. I have tried to look at the different energy offerings because the prices are extortionate." (Detached house inhabitant, oil and wood heating, [does not tell the place])*

*"When I moved into this house in 1978, the first year's oil consumption was 4,400 liters. That's where I started [saving energy]. During the first year, we changed to radiators. Then we replaced the oil boiler and its electronic controller. At the same time, we increased roof insulation. In the 90s, a renovation was made, replacing the windows with triple glazing. In 2017, 25 centimeters of cellulose wool was added as additional roof insulation. The front door was replaced. Now we're in a situation where our oil consumption is 2,150 liters. --- Now it starts to be pretty hard [to figure out from where to save anymore]. It would then be the geothermal next, but the cost is so significant. " (Detached house inhabitant, oil heating, Lieksa)*

[1] Laura Oja, Anu Vaahtera, Iivo Vehviläinen, Sanna Ahvenharju ja Laura Hakala (2013). Selvitys energiaköyhydestä— Kotitalouksien energiakustannukset. Ympäristöministerö, URL: [https://julkaisut.valtioneuvosto.fi/bitstream/handle/10138/41424/YMra21\\_2013\\_Selvitys\\_energiakoyhydesta\\_FINAL.pdf?sequence=2&isAllowed=y](https://julkaisut.valtioneuvosto.fi/bitstream/handle/10138/41424/YMra21_2013_Selvitys_energiakoyhydesta_FINAL.pdf?sequence=2&isAllowed=y).

