

## Press Release

### Czechs talk about expenditure on and savings of energy utilities, heat and water in their households – May 2018

- ⊙ An absolute majority (56%) of Czechs aged 15 or older say they are quite precisely acquainted with their expenditure on energy utilities, heat and water in their households, one-third (33%) have an approximate idea, and one in ten (11%) are not acquainted with their expenditure at all.
- ⊙ 36% of citizens declare having difficulties covering at least some of their energy utilities, heat and water bills.
- ⊙ An absolute majority (55%) of citizens are interested in technologies for a more economic management of energy utilities, heat and water.
- ⊙ 90% of households have invested in at least one energy-saving technology over the past five years, most frequently in energy-saving light bulbs, energy-efficient windows, thermostatic control systems, heat insulation of interiors, or façade insulation.
- ⊙ 13% of households have tapped subsidies for energy-saving technologies, either individually or collectively with others in their building.
- ⊙ In purchasing appliances, three-fifths of Czechs always or almost always decide depending on their energy class.

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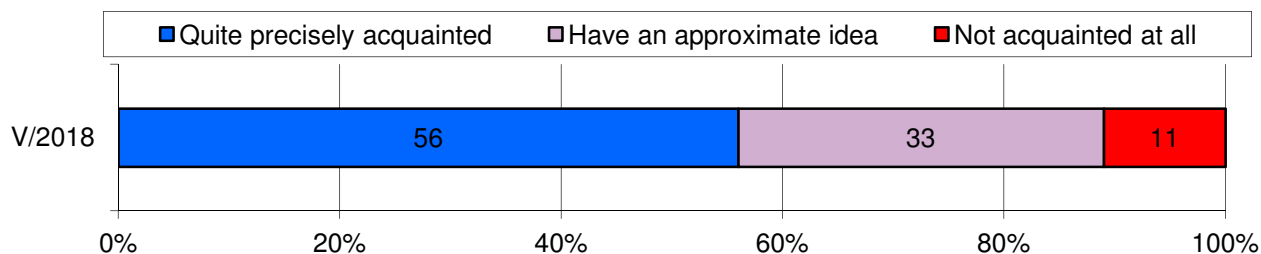


In May 2018, the Our Society survey series (*Naše společnost*) included an extra battery of questions about expenditure on and savings of energy utilities, heat and water in households. We examined whether people are acquainted with the expenditure on energy utilities, heat and water in their households, whether they find it easy or difficult to cover that expenditure, whether they are interested in technologies for a more economic management of energy utilities, heat and water, whether they have invested in these technologies over the past five years or are at least considering such an investment, whether they have ever drawn grants from programmes to support the installation of these technologies in households, and whether they decide take energy class into consideration when purchasing appliances.

The first question focused on whether people were acquainted with the financial expenditure on energy utilities, heat and water in their own households. As shown in Graph 1, an absolute majority (56%) of citizens aged 15 or older declared being “quite precisely acquainted”, one in three (33%) had “an approximate idea”, and the remaining 11% were not acquainted with the expenditure at all.

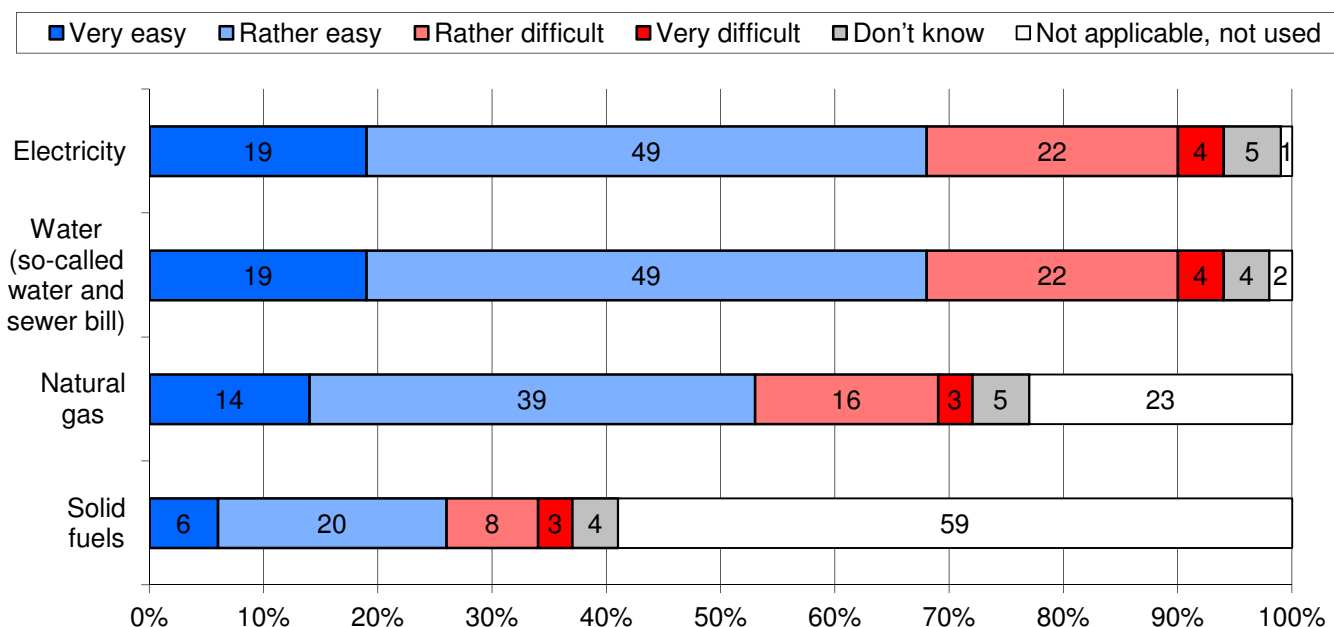
Detailed analysis revealed that knowledge of expenditure on energy utilities, heat and water grows with age, whereas the lowest levels were, quite predictably, recorded in the 15–19 age group and relatively low levels in the 20–29 age group as well. In contrast, respondents aged 60 or older exhibited the highest levels of knowledge. Quite predictably, too, higher levels occurred among respondents living alone, in single-person households. The level of knowledge also grew with educational attainment, interest in the country’s energy policy and interest in energy-saving technologies. Higher levels occurred among retired persons, respondents in households with a good standard of living, and those living in a marriage or civil union, widowed or divorced. In contrast, lower levels of knowledge were exhibited by students and single respondents (in terms of marital status). Interestingly, no gender differences in the level of knowledge occurred.

**Graph 1: Level of acquaintance with the financial expenditure on energy utilities, heat and water in one's household (%)<sup>1</sup>**



Source: Public Opinion Research Centre, Institute of Sociology CAS (CVVM SOÚ AV ČR, v.v.i.), Czech Society (*Naše společnost*), May 12–24, 2018, 1008 respondents aged 15 and over, face-to-face interviews.

**Graph 2: Difficulty for households to cover their expenditure for electricity, fuels and water (%)<sup>2</sup>**



Source: Public Opinion Research Centre, Institute of Sociology CAS (CVVM SOÚ AV ČR, v.v.i.), Czech Society (*Naše společnost*), May 12–24, 2018, 1008 respondents aged 15 and over, face-to-face interviews.

The next question assessed how easy, or difficult, the respondent found it for their household to cover the expenditure for electricity, natural gas, solid fuels and water. As shown in Graph 2, the figures for electricity and water expenditure are equal, whereas approximately one in four respondents (26%) found it difficult (22% “rather” and 4% “very” difficult) and about two-thirds (68%) found it easy to cover (49% “rather” and 19% even “very” much so). The numbers of respondents with self-declared difficulty covering their natural gas and especially solid fuels bills are considerably lower (19% found it difficult to pay for natural gas, of them 16% “rather” and 3% “very” much so; and 11% had difficulties paying for solid fuels, of them 8% “rather” and 3% “very” much so). The main reason is that much fewer households consume any of these fuels at all, with almost every fourth (23%) household stating “not applicable, not used” for natural gas and almost three in five (59%) for solid fuels. After discounting these respondents, the percentages of those who found it difficult to cover their expenditure for natural gas or solid fuels were equally around

<sup>1</sup> Question: “Are you personally acquainted with the financial expenditure on energy utilities, heat and water in your household? Are you quite precisely acquainted, do you have an approximate idea, or are you not acquainted with it at all?”

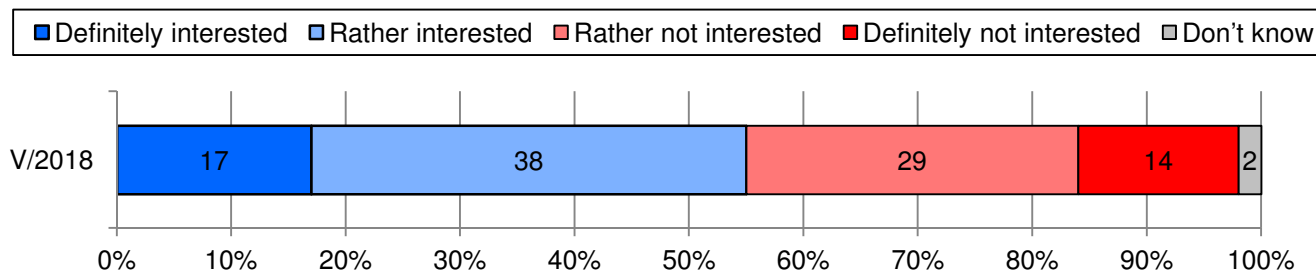
<sup>2</sup> Question: “How difficult, or easy, is it for your household to cover your expenditure for the following utilities: (a) energy utilities, (b) natural gas, (c) solid fuels, (d) water (so-called water and sewer bill).”

one-fourth (24% for natural gas and 26% for solid fuels). When all four items were summed under a single indicator, then difficulty covering one's expenditure for utilities was declared by more than one-third (36%) of the respondents, including 20% who had difficulty covering one or two items, 12% three and 4% all four items studied. The presence of big difficulties covering utility bills (the "very difficult" answer) can be interpreted as a significant indicator of so-called energy poverty – wherein a household finds it difficult to pay bills for heating its interior to a comfortable temperature (18–21 degrees centigrade) or to afford normal amounts of energy utilities.

Detailed analysis revealed that the level of difficulty covering expenditure for electricity, fuels and water correlates with household income and subjective standard of living. Difficulty covering any of the items was declared by slightly more than one-fifth (22%) of those who rated their household's standard of living as good, compared to almost three-fourths (72%) of respondents with a bad standard of living. The growth of self-declared difficulties with age and its negative relationship with educational attainment both reflect the same socioeconomic relationship to income and subjective standard of living – variables to which both age and especially education are strongly correlated.

There is also a significant relationship with number of household members. Respondents living in single-person households exhibit considerably higher levels of problems (55% of them find it difficult to cover at least one item), especially when they are widowed or divorced. In addition, these difficulties are significantly correlated to the number of economically active household members: they occur more frequently in households without any such member and less likely in those with two or more economically active members. As for household composition, difficulties occur much less often among households comprised of married or unionized couples with or without children (possibly plus other adult relatives), and more often in households that consist of a single member or a single parent with dependent children. In contrast, difficulty paying utility bills is statistically significantly linked to one's interest and especially investment in technologies for a more economic management of energy utilities, heat and water (see below). People interested and investing in such technologies are much less likely to declare difficulties covering their expenditure for electricity, natural gas, solid fuels or water.

**Graph 3: Interest in technologies for a more economic management of energy utilities, heat and water (%)<sup>3</sup>**



Source: Public Opinion Research Centre, Institute of Sociology CAS (CVVM SOÚ AV ČR, v.v.i.), Czech Society (*Naše společnost*), May 12–24, 2018, 1008 respondents aged 15 and over, face-to-face interviews.

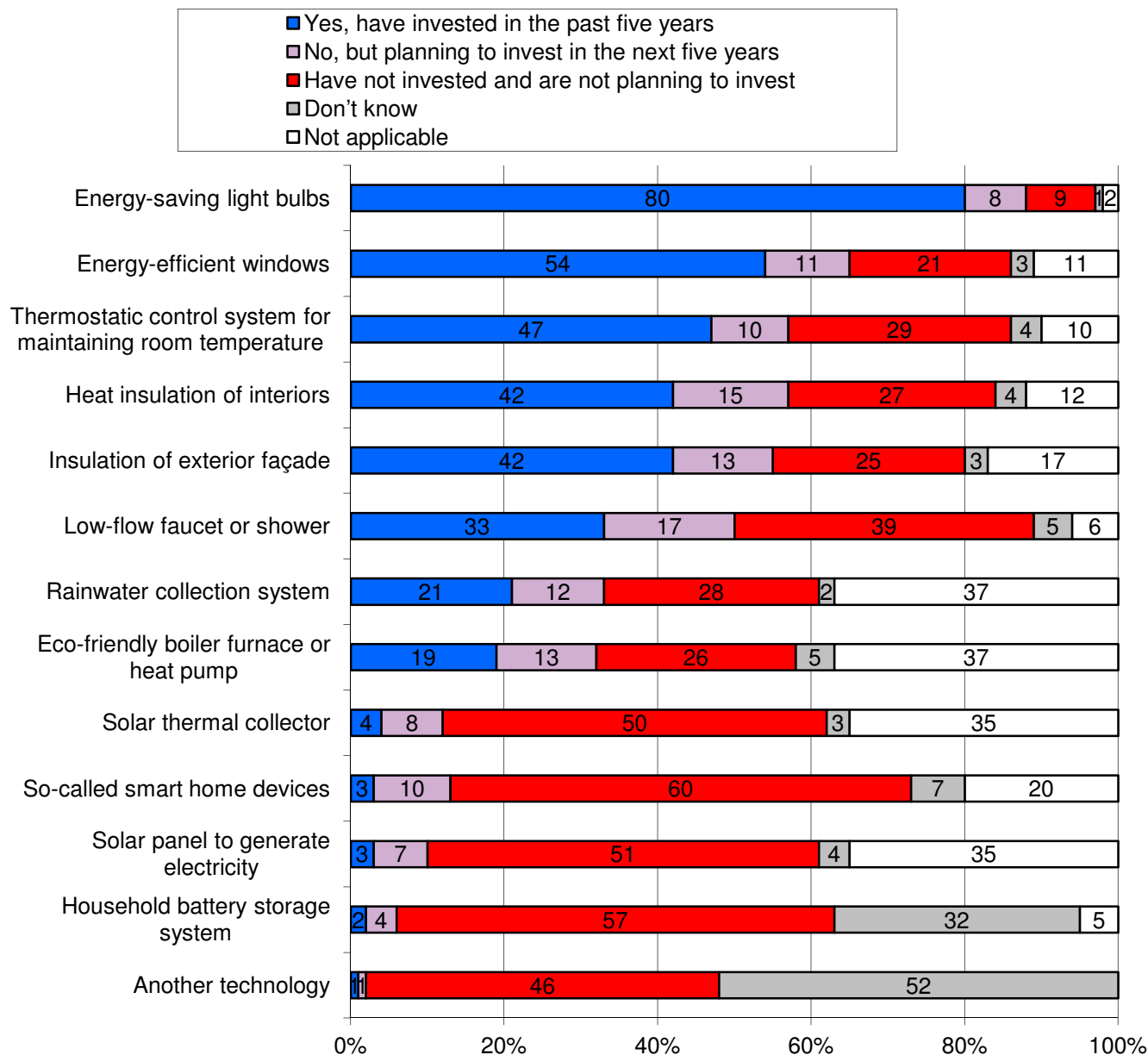
As indicated by results shown in Graph 3, an absolute majority (55%) of the respondents say they are interested in technologies for a more economic management of energy utilities, heat and water, including 17% who are "definitely" and 38% who are "rather interested". Lack of interest in this respect is declared by slightly more than two-fifths (43%) of the respondents, with 29% being "rather" and 14% "definitely not interested". 2% did not know how to answer the question.

Detailed analysis revealed that interest in more economic technologies is clearly linked to level of knowledge about one's financial expenditure on energy utilities, heat and water. Interest is declared by two in three (66%) respondents who are "quite precisely acquainted", one in two (50%) of those who have "an approximate idea" and only about one-fifth (21%) of those who are not acquainted with the expenditure at all.

<sup>3</sup> Question wording: "There are different technologies for a more economic management of energy utilities, heat and water, including energy-saving light bulbs, low-flow showers or building insulation. To what extent are you interested, or not interested, in such technologies? Are you definitely interested, rather interested, rather not interested, definitely not interested?"

Interest in technologies for a more economic management of energy utilities, heat and water generally grows with educational attainment and household's subjective standard of living. As for age, respondents under 30 years express relatively lower levels of interest whereas those aged 30–59 are more interested. As for type of housing, those living in their own single-family houses are more interested.

**Graph 4: Investment in technologies for a more economic management of energy utilities, heat and water (%)<sup>4</sup>**



Source: Public Opinion Research Centre, Institute of Sociology CAS (CVVM SOÚ AV ČR, v.v.i.), Czech Society (*Naše společnost*), May 12–24, 2018, 1008 respondents aged 15 and over, face-to-face interviews.

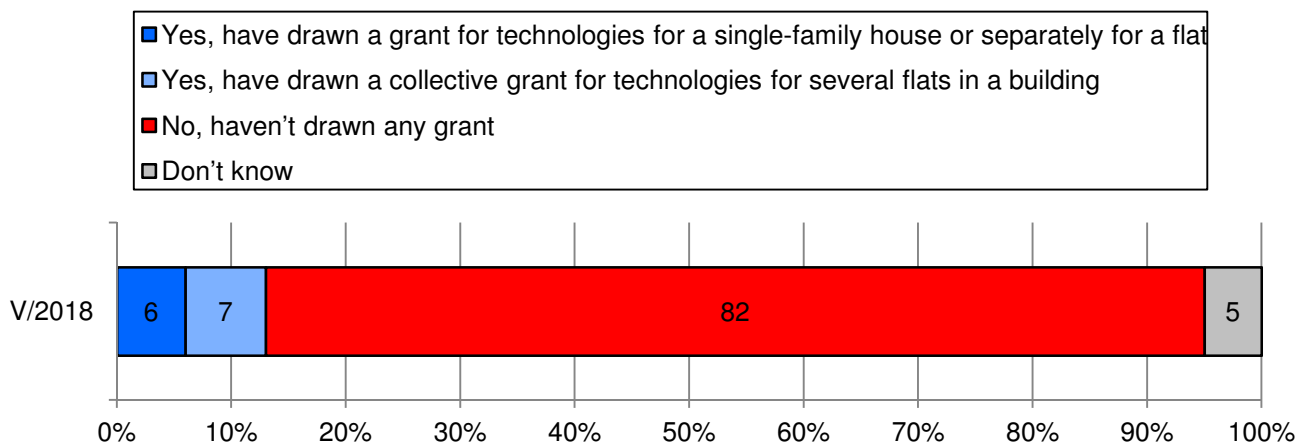
<sup>4</sup> Question: "I am going to name different technologies for a more economic management of energy utilities, heat and water. Please tell me whether you in your household have invested, or are planning to invest, money in buying any of the technologies. (a) energy-saving light bulbs, (b) low-flow faucet or shower, (c) thermostatic control system for maintaining room temperature, (d) energy-efficient windows, (e) heat insulation of interiors (such as door and window insulation, insulation of interior walls), (f) insulation of a building's exterior façade, (g) an eco-friendly boiler furnace or heat pump, (h) a rainwater collection system, (i) a solar thermal collector for so-called photothermic heating of water or production of heat, (j) a solar panel to generate electricity, so-called photovoltaic panel, (k) a household battery storage system, (l) so-called smart home devices (to manage or remotely control appliances, analyse and optimise energy consumption etc.), (m) another technology." Answer options: Yes, have invested in the past five years; no, but planning to invest in the next five years; have not invested and are not planning to invest.

The following question paid relatively detailed attention to any investments in technologies for a more economic management of energy utilities, heat and water made by the respondents' households over the past five years, or at least planned for the next five years. There were twelve items covering concrete technologies plus one open-ended question on "other technologies" where the respondent could describe the technology in their own words. Overall, 90% of the respondents mentioned at least one item as a technology in which their household had invested over the past five years; among them, 15% picked one item only, 13% picked two items, 14% three items, 13% four items, 14% five items, 10% six items, 6% seven items and 5% picked eight or more items.

Graph 4 shows results for the individual technologies. Declared by 80% of the respondents, energy-saving light bulbs were the most frequently purchased item. More than one-half (54%) also said they had invested in energy-efficient windows over the past five years. Almost every other respondent (47%) mentioned thermostatic control systems. Investment in heat insulation of interiors and in façade insulation was declared equally by over two-fifths (42%) of the respondents (these two groups overlapped by two-thirds, which can be explained by the fact that these investments are often implemented simultaneously, under a single project). A low-flow faucet or shower was purchased by one in three (33%), a rainwater collection system by about one in five (21%) and an eco-friendly boiler furnace or heat pump by 19% of the respondents. For all of the above technologies except energy-saving light bulbs (where the proportion was lower), at least an additional 10% of the respondents said they were planning to invest in the technology. Investment in the other items over the past five years was declared rather sporadically, by 2–4% for each, with somewhat higher percentages of those considering or planning such an investment in future.

More detailed analysis reveals that investment in energy-saving technologies is, quite predictably, associated with interest in such technologies and knowledge of one's financial expenditure on energy utilities, heat and water. There are also statistically significant and apparent links to how difficult people find it to cover their electricity, fuel or water bills. Those who invest more in energy-saving technologies have fewer difficulties paying for their consumption. This can be related to the savings achieved by the investment, on one hand, but the more likely reason is that people with higher educational attainment or higher income are more likely to invest in energy-saving technologies. As for housing type, such investment more frequently occurs among those living in their own single-family houses.

**Graph 5: Grants drawn from programmes to support the installation of energy-saving technologies (%)<sup>5</sup>**



Source: Public Opinion Research Centre, Institute of Sociology CAS (CVVM SOÚ AV ČR, v.v.i.), Czech Society (*Naše společnost*), May 12–24, 2018, 1008 respondents aged 15 and over, face-to-face interviews.

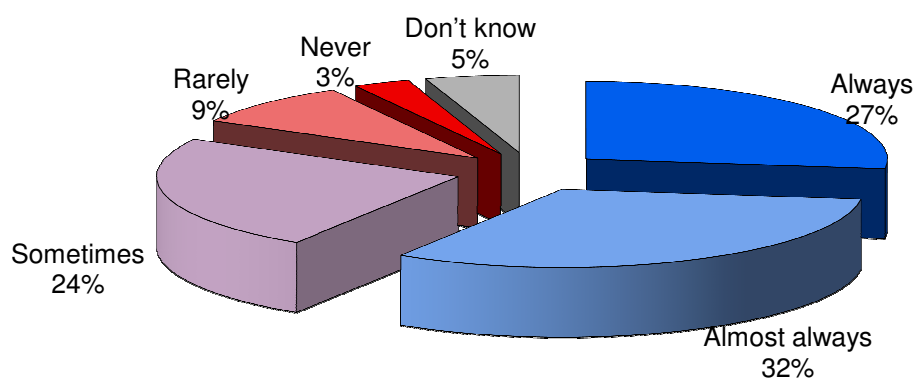
The battery's penultimate question (Graph 5) inquired whether the respondent's household had drawn grants from programmes to support the installation of energy-saving technologies over the past five years. 13% of the respondents admitted to having drawn such a grant, while 6% had done so individually, for one flat or single-family house, and 7%

<sup>5</sup> Question wording: "There is a variety of funding programmes such as the Green Savings Programme or the Boiler Subsidies, where one can draw a financial grant to purchase technologies for a more economic management energy, heat and water. Over the past five years, has your household drawn a financial grant from such programmes? Yes, you have drawn a grant for technologies for a single-family house or separately for a flat. Yes, you have drawn a collective grant for technologies for several flats in a building. No, you haven't drawn any grant."

collectively, for several flats in the same building. In contrast, 82% of the respondents said their household had not drawn any such grant. 5% were unable to answer the question and picked the “don’t know” option.

Detailed analysis reveals that individual subsidies for one flat or single-family house were more often drawn by people aged 45–59 years, respondents with a good standard of living, those living in single-family houses, those interested in energy-saving technologies and those who had invested, over the past five years, in seven or more technologies inquired about in the previous question. Collective subsidies were more often drawn by people living in precast concrete buildings.

**Graph 6: Is assignment to a high-savings energy class considered when purchasing appliances? (%)<sup>6</sup>**



Source: Public Opinion Research Centre, Institute of Sociology CAS (CVVM SOÚ AV ČR, v.v.i.), Czech Society (*Naše společnost*), May 12–24, 2018, 1008 respondents aged 15 and over, face-to-face interviews.

The last question of the battery on savings of energy utilities, heat and water inquired whether people’s decisions to purchase appliances depended on their assignment to a high-savings energy class. According to the results shown in Graph 6, three in five Czechs (59%) say their decision to buy an appliance always or almost always depends on energy class (it always does for 27% and almost always for 32% of them). Almost one in four respondents (24%) stated that their decision to buy an appliance only sometimes depends on its assignment to a high-savings energy class, and fewer than one in ten (9%) stated that their decision rarely depends on this. Only 3% of the respondents said their decisions to buy appliances never depend on their assignment to a high-savings energy class. 5% were unable to answer the question and picked the “don’t know” option.

Detailed analysis revealed that people aged 30–44 were more likely to always buy appliances depending on their energy class, people under 30 did so less often, and there was an especially high percentage of undecided respondents in the 15–19 age group. The role of energy class in purchasing decisions grows considerably with education, standard of living, level of knowledge about the expenditure on energy utilities, heat and water in one’s household, interest in energy-saving technologies, and level of investment in installing such technologies in one’s household. In contrast, the role of that motivation is weaker among those with difficulties to cover their bills for energy utilities, fuels and water.

<sup>6</sup> Question wording: “In purchasing household appliances, do you decide depending on whether the appliance has been assigned to a high-savings energy class? Always, almost always, sometimes, rarely, never.”

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## Technical parameters of the survey

<i>Survey:</i>	<i>Czech Society, v18-05</i>
<i>Survey by:</i>	<i>Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences</i>
<i>Project:</i>	<i>Czech Society – Continuous Public Opinion Research Project of the Public Opinion Research Centre, Institute of Sociology, Czech Academy of Sciences</i>
<i>Survey dates:</i>	<i>12–24 May 2018</i>
<i>Sampling method:</i>	<i>Quota sampling</i>
<i>Quotas:</i>	<i>Region (NUTS 3 Regions), size of place of residence, sex, age, education</i>
<i>Data source for quota sampling:</i>	<i>Czech Statistical Office</i>
<i>Representativeness:</i>	<i>Population of the Czech Republic aged 15+</i>
<i>Number of respondents:</i>	<i>1008</i>
<i>Number of interviewers:</i>	<i>227</i>
<i>Data collection method:</i>	<i>Face-to-face interviews conducted by interviewers with respondents – mixed CAPI and PAPI methods</i>
<i>Research instrument:</i>	<i>Standardised questionnaire</i>
<i>Questions:</i>	<i>MD.14, MD.15, MD.16, MD.17, MD.18, MD.19</i>
<i>Press release no.:</i>	<i>oe180913c_en</i>
<i>Published on:</i>	<i>13th September 2018</i>
<i>Prepared by:</i>	<i>Jan Červenka, Martin Ďurďovič</i>

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## Glossary of terms:

A quota sample replicates the structure of the **basic population** of the study (in this case the population of the Czech Republic aged 15+) by setting quotas for different parameters. **In other words, a quota sample is based on the same proportion of persons with the selected characteristics.** We used data from the Czech Statistical Office to create the quotas. In our surveys, quotas are set for sex, age, education, region, and community size. The sample is thus selected so that the percentage of men and women in the sample, for instance, corresponds to the share of men and women in each region of the CR. Similarly, the sample reflects the corresponding shares of the population in individual regions in the CR, citizens in different age groups, people with different levels of educational attainment, and people in different sizes of communities.

A representative sample is a sample of the total population whose characteristics can be validly inferred to apply as the characteristics of the population overall. In our case, this means that respondents were selected with a view to generalising the collected data as applicable to the population of the Czech Republic aged 15 and over.

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The Public Opinion Research Centre (CVVM) is a research department of the Institute of Sociology, Czech Academy of Sciences. It dates back to 1946, when the Czechoslovak Institute for Public Opinion Research began operating as part of the Ministry of Information. The current CVVM emerged in 2001 when its predecessor (IVVM) was transferred from the Czech Statistical Office to the Institute of Sociology. Its incorporation within an academic institution provides a guarantee of high professional standards and quality, and as part of an academic environment, the CVVM **is required to fulfil criteria that ensure it meets the highest professional standards.** The CVVM's work is centred on the Czech Society research project, under which it examines public opinion by conducting ten surveys annually on a representative sample of the population over the age of 15, with approximately 1000 respondents participating in each survey. The questionnaire's omnibus format makes it possible to cover a wide array of topics. Political, economic, and other general social topics are regularly covered by the survey. The surveys include both repeat questions, whereby it is possible to observe phenomena over time, and new topics that reflect current events. The long-term and continuous nature of this public opinion survey project is unique in the Czech Republic.

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**This work has been supported by the AV21 Strategy of the Academy of Sciences under the ‘Systems for Nuclear Energy’ research programme and the ‘Social Aspects of Nuclear Energy’ research topic.** |

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