

Results from the Survey on “Turkish Public Preferences for Energy” Conducted in 2021 were Announced

High cost of energy remains the most important problem.

The results from the survey on “Turkish Public Preferences for Energy” conducted in 2021 by the Center for Energy and Sustainable Development (CESD) at Kadir Has University were announced. The most prominent result was the rising costs of energy prices of the survey which conducted between December 10 and 22, 2021 by means of face-to-face interviews with 1237 people of 18 years and older representing the general population of Turkey

The Center for Energy and Sustainable Development (CESD) at Kadir Has University was established in 2015 for the purpose of carrying out interdisciplinary education and research activities by experts in different scientific fields and sharing the information obtained from these activities with the public. One of the most important activities of the CESD that conducts EU-supported research projects publishes and organizes events in the field of energy transition is the **Survey on Turkish Public Preferences for Energy**, which has been conducted since 2016.

The fieldwork for the fifth of this survey, which has been conducted four times between 2016 and 2019 and suspended in 2020 due to COVID-19, was carried out between December 10 and 22, 2021, and face-to-face interviews were made with 1237 people of 18 years and older residing in 16 provinces representing the general population of Turkey.

Striking results were obtained by the research team consisting of Project Coordinator and CESD Director **Prof. Dr. Volkan Ş. Ediger**, and the project members **Prof. Dr. Meltem Ucal**, **Assoc. Prof. Gökhan Kırkil**, **Prof. Dr. Çiğdem Kentmen Çin** (İzmir Economy University) and **Asst. Prof. Emre Çelebi**'nin (Yeditepe University).

HIGH PRICES OF ENERGY AND ECONOMIC PROBLEMS MADE THEIR MARKS IN 2021

The question “**What is the most important current problem of Turkey?**” was answered by **43.9 percent** of the survey participants as **economy**, 17.9 percent as education and, 8.3 percent as immigrants. Although the order of the problems has constantly changed over the years, the economy remained the top problem on the survey. The **world’s most important problem** was **economy** in 2021, which was followed by 42.1 percent as healthcare, and 39.8 percent as education.

The **most important aspects of energy consumption** were defined by the survey participants as follows: energy should be **clean and harmless to the environment** (32 percent), energy should be **obtained from local sources** (16.3 percent), and energy should be **accessed uninterruptedly** (15.4 percent); the percentage of those who indicate that energy should be **inexpensive** was 13.6 percent. The question “**What are the environmental problems caused by energy in Turkey?**” was answered by **59.6 percent** of the survey participants as **climate change**, 56.7 percent as impairment of human health and, 36.2 percent as air pollution.

The **most important problem with the energy system in Turkey** was considered as **high cost of energy** (32.5 percent) while 18.4 percent of the survey participants indicated inefficient use of energy and, 11.8 percent insufficient use of renewable energy as a problem.

COMPLAINT ABOUT INVOICES

The percentage of **those who found electricity prices high** in the recent year was **76.7 percent** and the percentage of those who found them normal was **17.2 percent** while **42.8 percent** of the survey participants found the electricity distribution cost **very high**, **31.7 percent** said they had no knowledge about the distribution cost and, 20.3 percent said that the distribution fees were unjustly collected. The percentage of **those who found natural gas prices high** was **77 percent** and, the percentage of those who found them normal was **15 percent** while **43.6 percent** of the survey participants found the natural gas distribution cost **very high**, **29.4 percent** said they had no knowledge on the distribution cost.

For the question “**What do you think about the triple time electricity tariff while using a smart meter?**”, 48.3 percent of the survey participants answered “I do not have any knowledge on this application”, 27.6 percent “I have examined the application, I do not believe that it would be useful for me”, and 17.7 percent “I have knowledge on the application and, I plan to move into it as soon as possible”. The percentage of those who made use of this application was 6.5 percent.

On the other hand, the distribution of those who found electricity prices “**very high**” and “**high**” according to the **political parties for which they voted in the most recent election** was as follows: 83.8 percent for CHP; 78.4 for AKP; 77.7 percent for HDP; 69.9 percent for MHP; and 50 percent for İyi Parti. The percentages of those who found **natural gas prices “very high” and high** were as follows: 85.5 percent for CHP; 81.8 for AKP; 71.9 percent for HDP; 66.4 percent for MHP; and 30.4 percent for İyi Parti.

OWNERSHIP OF HOUSES AND AUTOMOBILES, AND ENERGY EXPENDITURES

Out of the survey participants, 95 percent resided in city centers, and 5 percent in towns/villages; and **52 percent of the survey participants were homeowners**, 40 percent were tenants and, 8 percent were living in a house of someone else or in public housing. **62.5 percent** of the houses were **apartments**, and **41.3 percent** were of **66-100 m²**, 27.7 percent of 101-120 m² in size, and **54 percent** were **6 to 15 years** old.

Natural gas remained the most consumed energy source in houses. 74.9 percent of the survey participants said that they used natural gas for **heating** purposes, 74.2 percent for **hot water**



purposes, and 73.6 for **cooking** purposes while the second source was electricity for heating and hot water, and LPG for cooking. The percentage of those who used electricity for ovens was 64.9 percent and, the percentage of those who used natural gas was 31.4 percent.

Among the energy sources consumed in houses, the first one for which the highest budget was allocated was **natural gas** (68.7 percent) and the second one was **electricity** (26.8 percent). The monthly expense for the energy sources for which the highest budgeted was allocated was TL 251 to 300 (23.5 percent) and TL 201 to 250 (19.9 percent) for natural gas while it was TL 201 to 250 (19 percent) and TL 251 to 300 (17.2 percent) for electricity. Except for automobile fuels, the percentage of those who spent about TL 301 to 400 per month for all the energy sources consumed in houses was 25.4 percent while the percentage of those who spent TL 201 to 300 was 22.2 percent and the percentage of those who spent TL 401 to 500 was 22.2 percent.

About half of the survey participants were **homeowners** and, the percentage of those who have their own cars was only 27.7 percent. Out of these people, 93.3 percent said that they had 1 automobile while 6.7 percent had 2 automobiles. 39.7 percent of those who had a car said they used **diesel** while 37.6 percent used **gasoline** and 15.7 percent used **autogas**, and 24.5 percent said they spent an average amount of TL 301 to 400 on fuel per month and 20.4 percent spent TL 401 to 500. As a reason that prevented them from purchasing an **electric vehicle**, 35.7 percent of the survey participants said the prices were high, 19.8 percent said the charging time was too much, and 17.9 percent said the distance taken with full charge was not too long. On the other hand, the percentage of those who had a motorcycle was only 8.6 percent, and, out of these people, 93.4 percent owned a single motorcycle and 6.6 percent had 2 motorcycles. 73.6 percent of these motorcycles were operated by gasoline and 22.6 percent by electric and, the monthly fuel expense of 22.4 percent was about TL 201 to 300.

MEASURES AND PRACTICES ABOUT ENERGY EFFICIENCY ARE STILL WEAK

55.9 percent of the Turkish people accurately defined the term energy-efficient while 29.1 percent said that they did not know about the difference between energy efficiency and energy saving. On the other hand, the percentage of those who had heat insulation in their houses was 49.1 percent while the percentage of those who applied measures to **reduce energy consumption** and **achieve energy efficiency** was **38.4 percent**. As a reason why they did not take any measure, **29.9 percent** said they did **not sufficient knowledge**, 22.6 percent said there was no appropriate loan and, 20.3 said the costs of taking measures were too high.

The answers to the question “to what extent are the energy efficiency measures applied” suggest that the sum of positive values was **53.4 percent** in the **use of energy-efficient lighting products**, 46.1 percent in the use of energy-efficient hot water systems, and 44.6 percent in the use of fuel-efficient transportation vehicles. On the other hand, out of the answers to the question “what are the consumers care about for energy efficiency?”, those with the highest total of positive values were as follows: “**we do the dishing, washing and ironing after those that were needed to be dished, washed and ironed reached a certain volume**” (52.8 percent), “we turn off the lights in the locations of the house not used” (52.5 percent) and “we open and close the refrigerator’s door as less as possible (49.6 percent).



The survey suggested that 99.4 percent of the Turkish people use televisions, 98.5 percent use washing machines, 97.3 percent use refrigerators, 93.5 percent use dishwashers, and 92.4 percent use vacuum cleaners, but they do **not sufficiently consider the information given on the energy label** when purchasing an electrical appliance. **31 percent** of the survey participants said **“I occasionally consider their time”**, and **30 percent** said, **“I mostly consider them”**. When it comes to genders, **33.7 percent of the male participants** “occasionally” considered the information on the energy labels and, **30.8 percent of the female participants** “mostly” considered this information.

The question “Which one do you prefer when purchasing a bulb” was answered by **65.6 percent** as **“a classic filament bulb”** and, by **53.5 percent** as **“an energy-saving LED bulb”**.

NATURAL GAS AND SUN AS ENERGY PREFERENCES

Those with the highest total of positive values among the answers to the question **“Which one would you prefer to fulfill your requirements for energy used for heating, cooling, hot water, lighting, household electrical appliances in your house?”** was as follows: the sun (63 percent), natural gas (62.2 percent) and wind (57.4 percent). The question **“Which one would you prefer the most among the following?”** was answered by **37.8 percent** as the sun, **26.8 percent** as natural gas, and 7.8 percent as hydroelectric.

When those who preferred renewable energy sources were asked the reason for this preference, the highest total of positive values were as follows: **“I consider the future of my children and grandchildren” (94.4 percent)**, “clean and environmentally friendly (93.9 percent), “the fuel of the future in the world (93.4 percent). The percentage of those who preferred **natural gas** to meet the need for energy used for heating purposes only in their houses was **50.4 percent** while the percentage of those who prefer **electricity** was **16.9 percent**. The energy source with the highest priority preferred to meet the need for electricity was **natural gas (37.7 percent)** and **the sun (17.9 percent)**. The percentage of those who said natural gas was the **“most important energy source for Turkey in the future”** was **30.4 percent** while the percentage of those who claimed petroleum was the **“most important energy source for Turkey in the future”** was **10.6 percent** only.

The energy source that was preferred the most was natural gas, but the percentage of the survey participants who owned an **electricity-generating system from solar panels** installed on the roofs and façades of the houses they lived in was **16.7 percent only**. As a reason why 83.3 percent **did not have such types of systems**, **28.1 percent** said **“the installation costs are too high”**, **26.3 percent** said **“the houses they live in are not suitable for these types of systems”**, and **25.3 percent** said, **“they failed to reach a mutual agreement with their neighbors”**. The question “What do you think about the installation of electric generating solar panels on the roofs and façades of your house?” was answered by 33 percent of the survey participants as **“I do not have sufficient knowledge”**, 29.8 percent as “I would use if I found an appropriate budget/loan”.

When asked which types of power plants they would support for the installation within the border of the province in which they live, **58.7 percent** answered as **wind**, **55.4 percent** as **the sun**, and **50.1 percent** as **natural gas** while the percentages for geothermal (41.9 percent), coal (34.5



percent) and nuclear energy (28.8 percent) power plants were lower compared to the general figures. The percentage of those who supported the installation of a nuclear energy plant was **55 percent in Tekirdağ, 54.4 percent in Samsun, and 47.1 in Malatya**, and the percentage of those who did not support the installation of a nuclear energy plant was 79.7 percent in Manisa, 65 percent in Erzurum and 61.6 percent in Bursa.

The distribution of those who **supported the installation of a nuclear energy plant** according to the political parties for which they voted in the most recent election was as follows: **MHP (38.8 percent), AKP (31.8 percent), CHP (30.6 percent), HDP (24.8 percent), İYİ Parti (23.5 percent)**. As the level of education increases, the percentage of those who supported the installation of a nuclear energy plant decreases. The statements with the highest positive values concerning the installation of a nuclear power plant were as follows: **“Nuclear power plants are threatening and posing risks to the environment and public health” (51.7 percent)**, “nuclear power plants have an important role in meeting energy need” (44 percent) and “Turkey needs to develop its own nuclear energy technology” (43 percent).

LEVEL OF AWARENESS AND PREFERENCES FOR ENERGY POLICIES

The question **“to what extent are you aware of the energy policies of the political party for which you voted in the most recent election?”** was answered by 42 percent of the survey participants as “I am not aware or unaware”, **33.2 percent as “I am aware”** and, 24.8 percent as “I am not aware.” **55.1 percent** of the survey participants said they followed the energy policies of the political parties on **television** while 41.1 percent on the internet/ social media; **30.6 percent** of the survey participants asked for advice from **family/friends** about the energy policies of the political parties and, 23.7 percent from the energy companies. **36.2 percent** of the participants said they would **consider the energy policies of the political party for which they would vote in an election**, while 24 percent said they would not.

The aspects with the highest total of positive values to assess the **government’s policies** were “supply of natural gas” (**43.3 percent**), “electricity generation-transmission-distribution” (**42 percent**), and “petroleum and natural gas pipelines” (**39.7 percent**) in 2021 similar to the previous years. The percentage of those who supported the government’s nuclear energy policies was 32.6 percent; MHP (41.4 percent), AK Parti (34.9 percent), CHP (32.8 percent), HDP (30.6 percent), and, İYİ Parti (26.5 percent). The question **“From which country would you prefer Turkey get energy?”** was answered by 33.8 percent as “We should generate by ourselves instead of getting from others”, 16.2 percent as “Azerbaijan”, and 14.8 percent “We should prefer the one which offered the cheapest energy”.

OUTLOOK ON ENERGY PROBLEMS AT A GLOBAL SCALE

68.6 percent of the survey participants answered “yes” to the question **“Do you believe in global climate change?”** When it comes to the voters of the political parties, 76 percent of those the voters of CHP believed in climate change while this percentage was 72.7 percent for the voters of HDP, 64.6 for the voters of AK Parti, 58.8 for the voters of İYİ Parti and 52.6 percent for the



voters of MHP. The percentage of those who believed in global climate change was 59.1 among those who were primary school graduates, while this percentage raised to 73.3 percent among university graduates. **71.8 percent** of the survey participants said that they believed that global climate change was caused by **human-related reasons**.

An analysis of the percentage of those who are aware of international topics such as sustainable development and global climate change suggests that **26 percent** of the survey participants are aware of the **Sustainable Development Goals**; **14.9 percent** are aware of the **Paris Climate Convention**; **7.2 percent** are aware of the **European Green Deal**, and **6.4 percent** are aware of the **Millennium Development Goals**. On the other hand, 38.4 of the survey participants accurately defined the term “sustainability” and another answer for this term (23 percent) was “continuous increase in the income of an institution or country”.

