

Savanta:



Guidehouse



89up

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RESEARCH BRIEF CZECHIA

With research from Savanta & Guidehouse

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TABLE OF CONTENTS

INTRODUCTION	Page 3
MAIN FINDINGS	Page 4
ECONOMIC STUDY RESULTS	Page 7
POLLING RESULTS	Page 10
01. Extreme temperatures are causing stresses such as increased health issues and anger among Czechs. Tenants are more affected.	Page 11
02. Czechs fear that future extreme temperatures will impact themselves and their loved ones	Page 12
03. For nearly 1 in 3 Czechs, energy bills are their top financial concern for the coming year. Twice as many placed it in their top three.	Page 13
04. Future energy bills remain a large concern for Czechs - and the concern over the long term is even higher than for the short term	Page 14
05. Rising energy bills have made Czechs cut down on expenses such as food and healthcare - especially vulnerable populations	Page 15
06. Across all Czechs, financial anxiety was cited as the most common reason for feeling depressed or anxious	Page 16
07. A majority of Czechs would like their homes to be more energy efficient. Tenants in social housing are especially unhappy with the energy efficiency of their homes.	Page 17
08. Across all Czechs, financial anxiety was cited as the most common reason for feeling depressed or anxious	Page 18
09. More than a third of Czechs had energy renovation plans that have been delayed or dropped. Costs hold people back from renovating - but they are not the only barrier mentioned	Page 19
10. Czechs are significantly more supportive than unsupportive of a requirement for energy efficiency improvements	Page 20
11. Better resistance to extreme temperatures is the most cited advantage of energy efficiency improvements.	Page 22
12. A majority of Czechs are neither supportive nor unsupportive of measures in Brussels to collectively phase out gas boilers.	Page 23
13. Czechs would like the government to support them in the long term to bring down their energy bills, more than short term subsidies. Tenants are especially focused on the long term.	Page 24

INTRODUCTION

The future of our buildings is currently being debated across Europe. With soaring energy bills, concerns over imports of gas from foreign states, and the climate crisis resulting in still more extreme seasons, there is an increased focus on ensuring a buildings sector that is fit for the future.

Several pieces of EU legislation in this area are currently being negotiated, including the Energy Performance of Buildings Directive and the Ecodesign Directive.

Making homes more energy efficient and securing clean heating and cooling will significantly reduce the energy bills of Europeans in the future. It will also increase energy security for the continent, as countries will become less reliant on e.g. importing gas from foreign states. Lastly, it will be a crucial element in reaching the EU's target of climate neutrality by 2050.

To help inform the discussion on Europe's transition on buildings, this research brief summarises two pieces of research both conducted in September 2023:

- **An economic study conducted by Guidehouse.** This calculates energy related investments and cost savings related to renovating the worst performing buildings of the country. This is based on a potential introduction of Minimum Energy Performance Standards, currently being discussed under the revision of the Energy Performance and Buildings Directive.
- **Public polling conducted by Savanta.** Questions were asked about the impact of extreme temperatures on people in their homes, their concerns about energy bills, and their views towards renovations and clean heating. The poll was run on a nationally representative sample size of over 1,000 people.

The summaries and presentation of the data is created by 89up.

MAIN FINDINGS

Economic study

If Czechia renovates its least energy efficient buildings, the energy cost savings would exceed the renovation investment by 55%. Calculations show that with an investment of 15 billion euros until 2033, the energy cost savings after 20 years are 23 billion.

With a high level of ambition, the total energy cost savings would be 23 billion euros over 20 years. This would be the case if the EU agrees to renovate approximately 27% of its least energy efficient buildings until 2033 to at least energy class E. This number assumes an interest rate of 3%. If no interest rate was assumed, the energy cost savings would be even higher.

Polling

Extreme temperatures are causing various stresses among Czechs. 36% have experienced increased health issues to at least some extent during extreme temperatures. Other stresses reported were lower productivity (49%) and decreased happiness (38%). Tenants in social housing are more affected by extreme temperatures, with 43% of them experiencing increased health issues and 57% experiencing lower productivity.

The concern over heat waves, now and in the future, is present. 44% of Czech parents are concerned about their children during periods of extreme temperatures. A third of the population

(34%) fear that future heatwaves will affect their life expectancy or that of a loved one.

Energy bills remain a large concern for Czechs - and the concern over the long term is even higher than for the short term. While nearly one in three (31%) of

Czechs are either somewhat or very concerned about their energy bills this winter, half (54%) expressed being concerned about the next 1-5 years. Renters in social housing are even more concerned for this month (43%), in the coming winter (52%), in the next 1-5 years (64%).

The rise in energy prices has made Czechs cut down on essential expenses such as healthcare and food - especially vulnerable populations. 37% have cut down on healthcare expenses or dentist to at least some extent, and 50% have reduced food budgets. Of Czechs earning less than 480,000kr a year, 44% have cutting down on healthcare expenses or dentists, and 61% reducing food budget. For renters in social housing, 73% have reduced food budget, and 52% cutting down on healthcare expenses or dentist,

Financial anxiety is the most common reason for feeling depressed or anxious. Among the 66% of Czechs who had felt depressed or anxious at least occasionally in the past 12 months, nearly half (48%) of those cited financial anxieties as one of the reasons.

A majority of Czechs would like their homes to be more energy efficient. 59% replied they would like their home to be at

least somewhat or much more energy efficient.

Tenants in social housing are the least happy with the energy efficiency of their homes. Only 35% of tenants in social housing are happy with the energy efficiency of their homes. This is compared to 44% for homeowners without a mortgage.

Costs hold people back from renovating - but they are not the only factor. 39% of Czechs had energy renovation plans that have been delayed or dropped. For 59% of those, one of the reasons was the cost - but other barriers including a lack of skilled workers (14%) or knowledge (18%), or difficulties in getting a housing association or building cooperative to agree to the changes (13%), were also cited.

Czechs are significantly more supportive than unsupportive of a

requirement for energy efficiency improvements. 45% of Czechs are either very or somewhat supportive of a requirement for energy efficiency improvements for the least energy-performing buildings in the country. Only 14% are unsupportive.

Czechs want the government to support them in the long term more than the short term. While 20% would like short-term support to subsidise their energy bills, 37% would like support on energy efficiency renovations of homes, and 44% would like support to transition to cheaper heating sources.

Renters are especially focused on the long term, with 39% of tenants in private housing willing to receive support on energy efficiency renovations of homes, while only 18% would like their energy bills to be subsidised.

REVISION OF THE ENERGY PERFORMANCE OF BUILDINGS DIRECTIVE (EPBD)

The Energy Performance of Buildings Directive (EPBD) is a European Union law currently under negotiation. The proposal for revision sets out how Europe can achieve a fully decarbonised building stock by 2050, with the potential of lifting millions of households out of energy poverty, and reducing Europe's reliance on foreign gas imports at the same time.

Under the EPBD, the Member States will be tasked with developing national plans to upgrade their national homes, schools, hospitals and other buildings.

By setting a minimum energy performance standard for buildings, countries will be required to upgrade the worst-performing buildings to better energy ratings. This will include both residential and non-residential buildings. Buildings that are energy efficient have lower energy consumption and are usually safer to live in. By

targeting the least energy efficient buildings first while ensuring social safeguards, the measures will have a positive impact on the most vulnerable populations.

The revision of the EPBD, including the ambition level of the Minimum Energy Performance Standards (Article 9) is currently being negotiated between the EU Commission, EU Parliament and EU Council in interinstitutional negotiations.

ECODESIGN DIRECTIVE

Ecodesign (and Energy Labelling) is an EU-wide Framework Directive aimed at harmonising energy efficiency and environmental standards for products in the EU's single market.

Ecodesign and Energy Labelling policies have been integral to lowering energy bills and reaching the EU's climate targets until now. It is estimated that these interventions are responsible for [one-quarter of the EU's 2020 emissions reductions](#) and almost 50% of the EU's total 2020 energy savings.

The directive is currently undergoing a revision which could ensure that all heating appliances available in the EU reach an efficiency level that will keep costs low. This would mean a phase-out of stand-alone gas boilers starting in 2029, with gradual replacement by alternatives running on renewable energy.

The implementation of this measure is expected to reduce energy bills in the long term, wean off imports of gas from abroad, and ensure lower carbon emissions.

ECONOMIC STUDY RESULTS

Guidehouse conducted a study to provide an estimate on the economic effects for the introduction of Minimum Energy Performance Standards (MEPS) currently being discussed under the EPBD revision.

It focuses on energy related investments which would be required to comply with MEPS addressing the worst performing buildings and related energy cost savings.



SUMMARY OF FINDINGS:

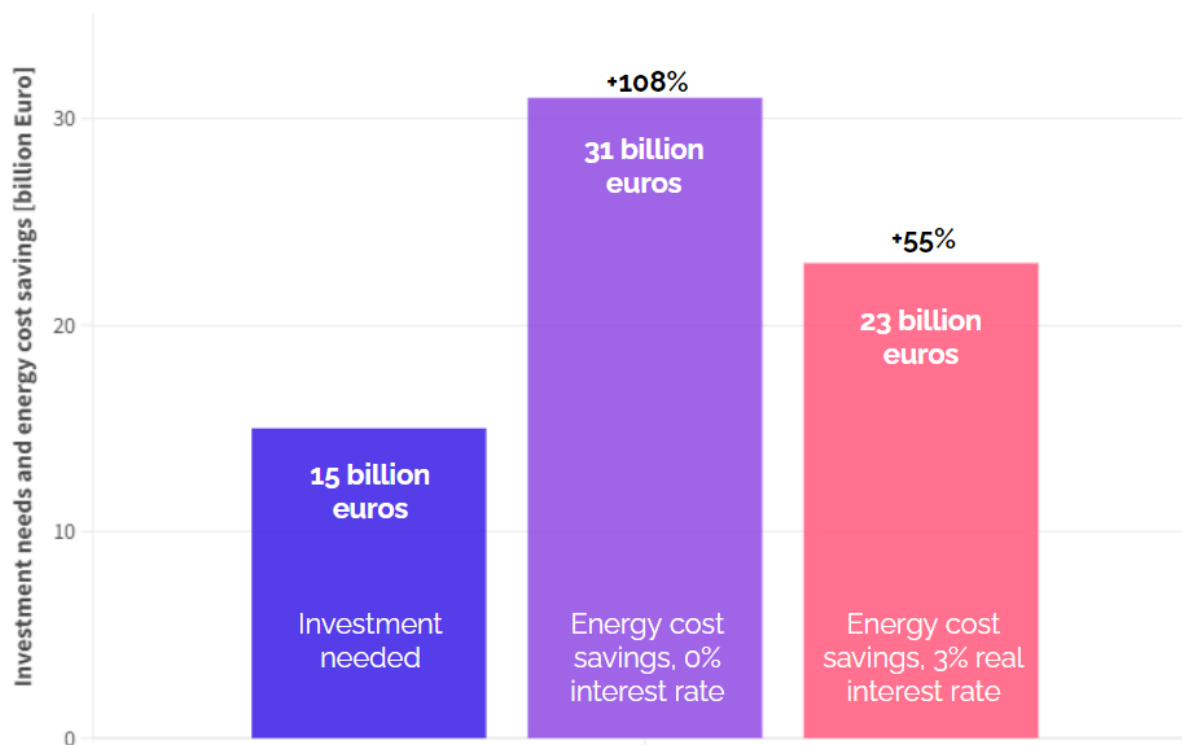
If Czechia renovates its least energy efficient buildings, the energy cost savings would exceed the renovation investment by 55%.

With a high level of ambition, the total energy cost savings would be 23 billion euros over 20 years.

KEY RESULTS:

- If the EU agrees to renovate approximately 27% of its least energy efficient buildings until 2033 to at least energy class E, the total energy cost savings for Czechia would amount to 23 billion euros after 20 years.
- To renovate these buildings, the investment needed for Czechia up until 2033 is 15 billion euros.
- The energy cost savings after 20 years are thus 55% higher than the investment needs.
- These energy cost savings assume an interest rate of 3%. If a 0% interest rate is assumed, the cost savings would be 31 billion euros. This is 108% more than the investment needed.
- Across Europe, renovation of the least energy efficient buildings would bring down energy bills by about 80 billion euros per year.

Cumulated investment needs (until 2033) and cumulated energy cost savings (over 20 years)



Source: Guidehouse

FURTHER DETAILS:

The definition of Minimum Energy Performance Standards used for these calculations is based on the EU Commission proposal for the EPBD recast from December 15th, 2021.

In this proposal, EPC-classes should be harmonised across the EU and the worst performing buildings in the lowest classes F and G (approx. 27% of the EU building stock) should be addressed by 2033 to reach at least EPC class E.

The cumulated investment needs and energy use savings are based on the Commission's EPBD Impact Assessment Report.

First, the total investment needed until 2033 across the EU was calculated to a total of 860bn EUR.

This was then broken into zones, with Czechia being part of the North-Eastern zone. This was then further broken down to country level based on the share of worst performing buildings per country.

The energy savings and energy cost savings are broken down to country level by a combination of the "share of worst performing buildings per country" and "energy use for space heating by country".

NOTES ON MINIMUM ENERGY PERFORMANCE STANDARDS:

Currently (October 2023), the trilogue negotiations between the EU Commission, the European Parliament and the Council of the European Union are ongoing.

As the negotiations are not targeting a harmonisation of EPC classes anymore, the total numbers for both investments and savings do not reflect the emerging compromise exactly.

With a lower level of ambition, the total numbers for both investment needs and energy cost savings will also be lower.

However, as long as a final agreement on Minimum Energy Performance Standards will mean addressing the least energy efficient buildings, the benefit in energy cost savings compared to the investment needs will reflect this study.

POLLING RESULTS

Savanta interviewed a total of 5,083 adults aged 18+ online in Poland (1,027), Italy (1,022), Germany (1,007), Spain (1,012) and the Czech Republic (1,015) between 15th and 20th September 2023.

Data were weighted per country by age, gender and region to be nationally representative by country. In multi-country results, respondents in each country were weighted so that countries were equally represented in the overall total.

All data collection was conducted by Savanta with all reporting and analysis conducted by 89up. Savanta is a full member of the Market Research Society and the British Polling Council and abides by all their rules.

Savanta:

1. Extreme temperatures are causing stresses such as increased health issues and anger among Czechs. Tenants are more affected.

KEY STATS:

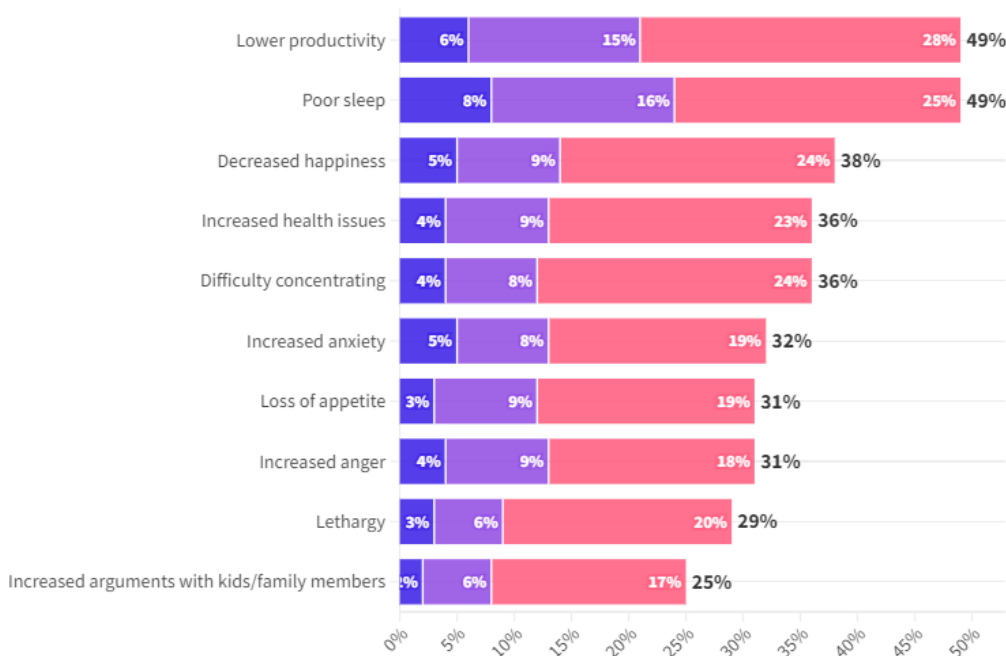
49% have experienced lower productivity to either some, a large or a very large extent during a period of heatwave and/or extreme cold. 36% have experienced difficulty concentrating.

32% have experienced increased anger, and 38% decreased happiness. 32% have experienced increased anxiety. 49% have experienced poor sleep, and 36% increased health issues.

FULL DATA

To what extent, if at all, have you experienced the following stresses during a period of heatwave and/or extreme cold? (In %)

■ To a very large extent ■ To a large extent ■ To some extent



DEMOGRAPHIC NUANCES:

- 55% of **tenants in both private and social housing** experience poor sleep to either some, a large or very large extent during extreme temperatures.
- 57% of **tenants in social housing** experience decreased productivity, and 43% experience increased health issues.

2. Czechs fear that future extreme temperatures will impact themselves and their loved ones

KEY STATS:

41% of Czechs are somewhat or very concerned about elderly relatives during periods of extreme temperatures.

34% of Czechs are fearful that future heatwaves will affect their life expectancy or that of a loved one.

DEMOGRAPHIC NUANCES:

- 44% of **Czechs parents** are somewhat or very concerned for their children during heatwaves or extremely cold winters.

3. For nearly 1 in 3 Czechs, energy bills are their top financial concern for the coming year. Twice as many placed it in their top three.

KEY STATS:

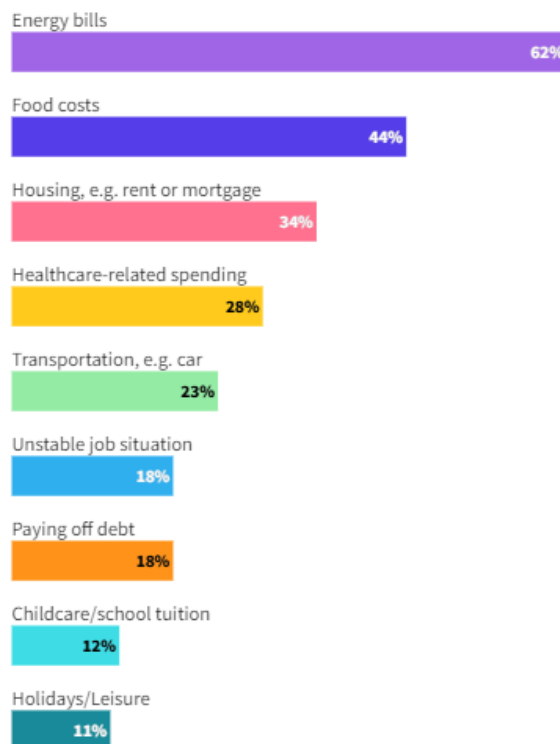
61% of Czechs ranked energy bills as one of their top three financial concerns for the coming year.

31% of Czechs ranked energy bills as their number one concern for the coming year. Rent or mortgage is the second most cited, with only 12% positioning it as their first financial concern.

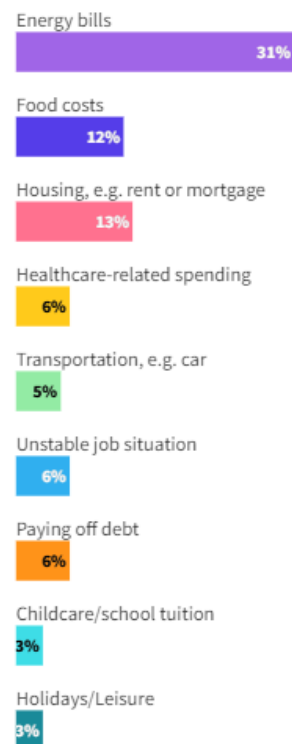
FULL DATA:

Rank your top financial concern(s) for the coming year

Ranked Top 3



Ranked First



4. Future energy bills remain a large concern for Czechs - and the concern over the long term is even higher than for the short term

KEY STATS:

31% of Czechs have expressed that they are either somewhat or very concerned about their energy bills for this month.

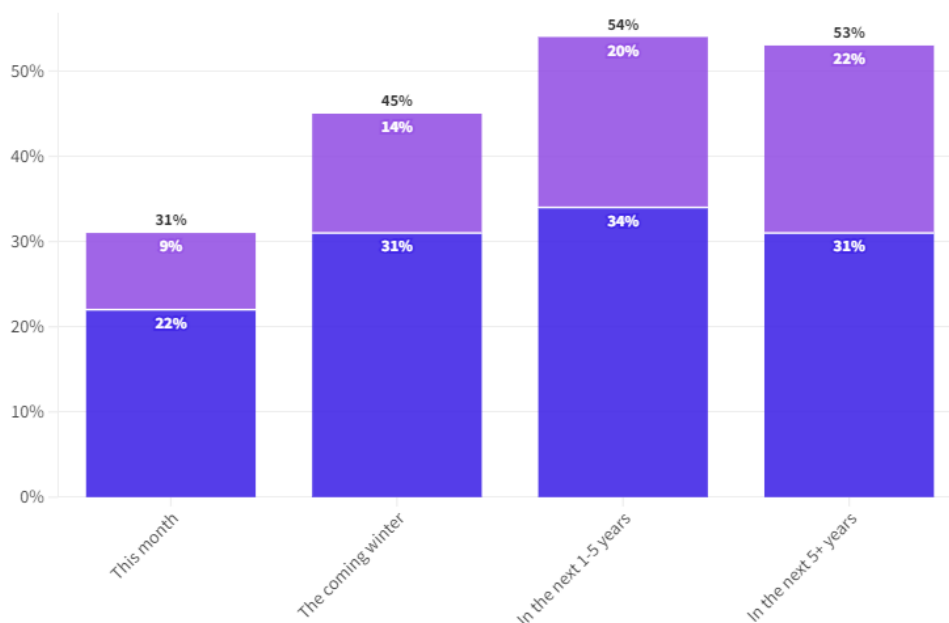
45% of Czechs have expressed that they are either somewhat or very concerned about their energy bills for the coming winter.

54% of Czechs have expressed that they are either somewhat or very concerned about their energy bills in the next 1-5 years.

FULL DATA:

To what extent are you concerned, or not, about your energy bills... (In %)

■ Somewhat Concerned ■ Very Concerned



DEMOGRAPHIC NUANCES:

- **Czechs earning less than 480,000 kr** are more concerned about their energy bills this month (39%), in the coming winter (53%), and in the next 1-5 years (62%).
- **Renters in private housing** are more concerned about their energy bills this month (39%).
- **Renters in social housing** are more concerned about their energy bills this month (43%), in the coming winter (52%), and in the next 1-5 years (64%).

5. Rising energy bills have made Czechs cut down on expenses such as food and healthcare - especially vulnerable populations

KEY STATS:

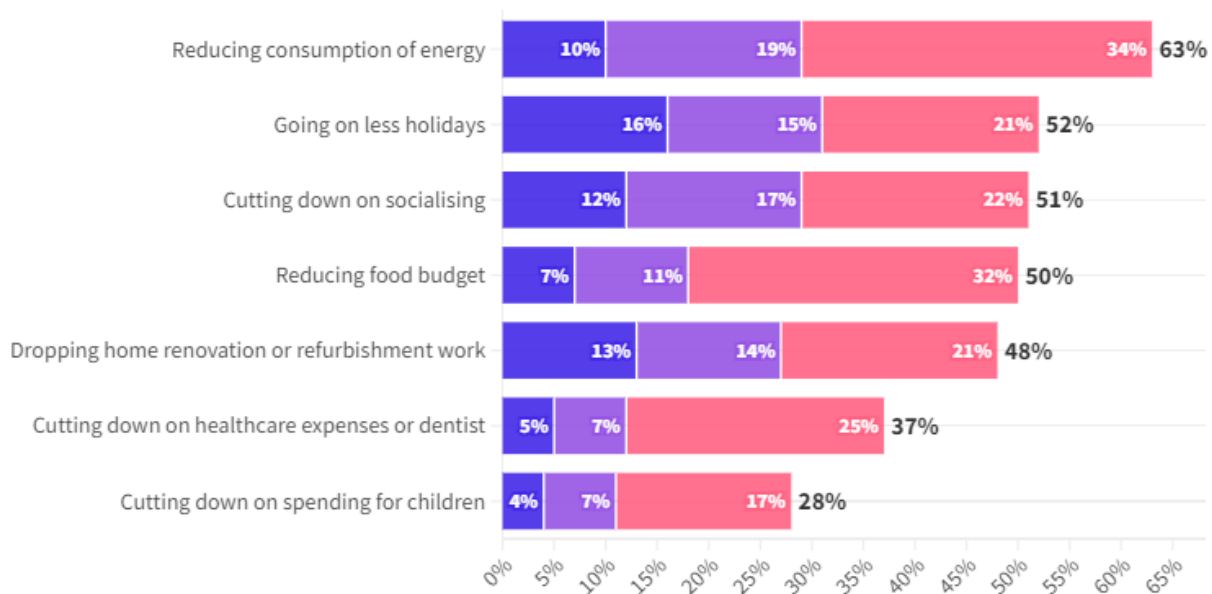
50% of Czechs reduced their food budget to at least some extent due to rising energy prices, and 37% on healthcare expenses or dentists.

More than half of Czechs cut down on socialising (51%) and holidays (52%) due to the rise in energy bills.

FULL DATA:

To what extent have you had to make any of the following adjustments as a result of rising energy prices? (In %)

■ To a very large extent ■ To a large extent ■ To some extent



DEMOGRAPHIC NUANCES:

- **Czechs earning less than 480,000 kr** have been more affected - with 61% reducing food budget to at least some extent, 44% cutting down on healthcare expenses or dentist, and 58% going on less holidays.
- **Renters in social housing** have been more affected - with 73% reducing food budget, 52% cutting down on healthcare expenses or dentist, 64% going on less holidays.

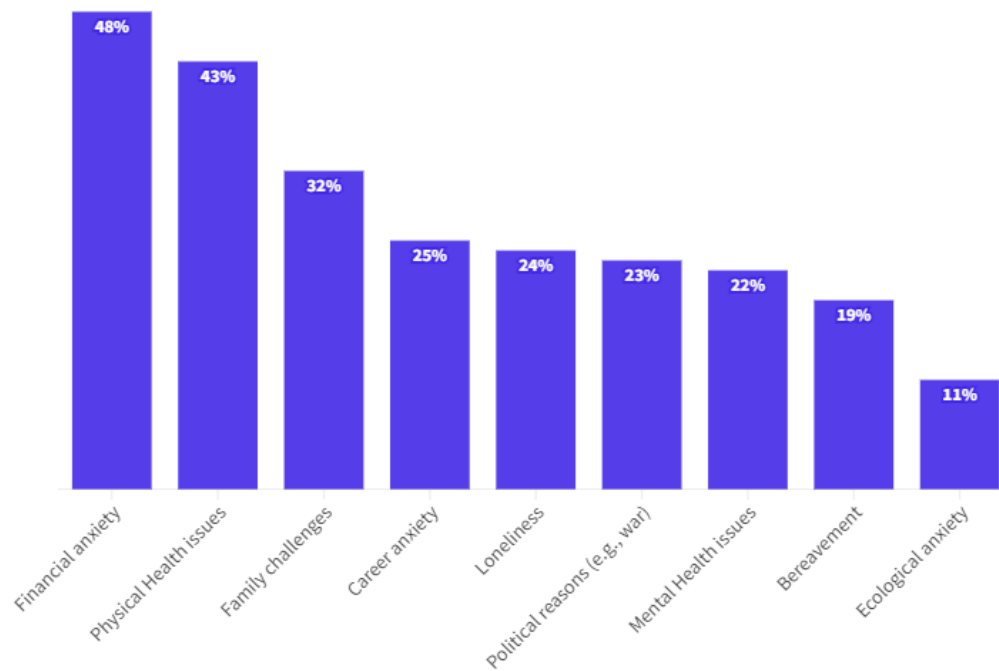
6. Across all Czechs, financial anxiety was cited as the most common reason for feeling depressed or anxious.

KEY STATS:

66% of Czechs said they had felt depressed or anxious at least occasionally in the past 12 months. Among those, 48% cited financial anxieties as one of the reasons.

FULL DATA:

What are the reasons for you having felt depressed or anxious? Tick all that apply... (In %)



7. A majority of Czechs would like their homes to be more energy efficient. Tenants in social housing are especially unhappy with the energy efficiency of their homes.

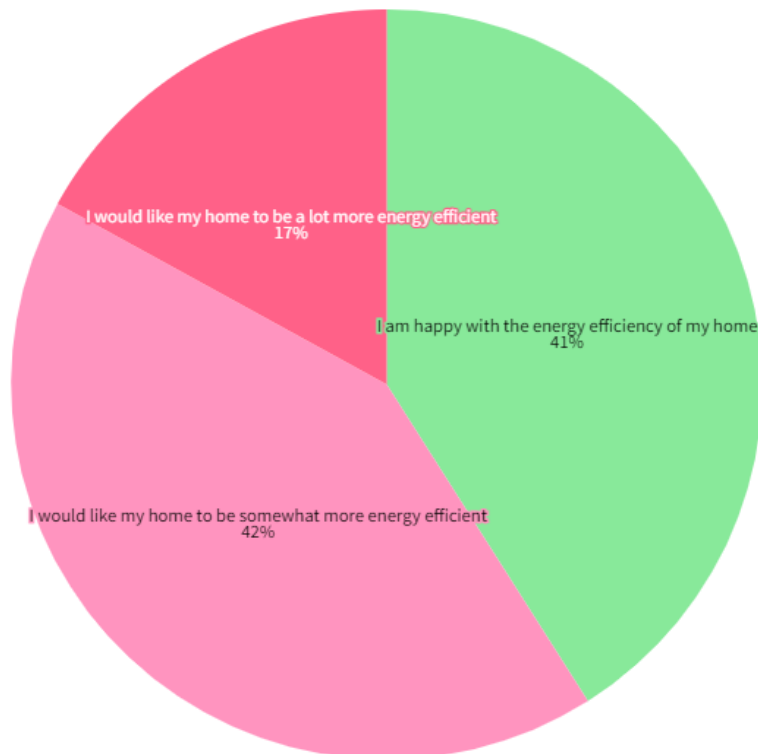
KEY STATS:

59% of Czechs would like their homes to be somewhat or a lot more energy efficient.

Only 41% of Czechs say they are happy with the energy efficiency of their homes.

FULL DATA:

Which of the following statements applies to you?



DEMOGRAPHIC NUANCES:

- Only 35% of **tenants in social housing** are happy with the energy efficiency of their homes. This is compared to 44% of homeowners without a mortgage.

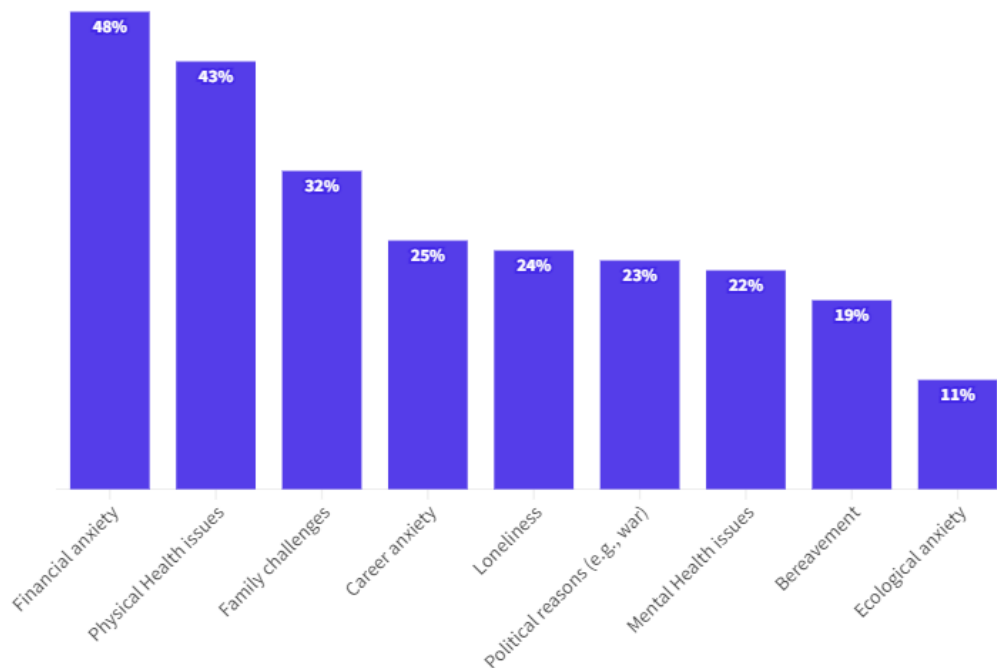
8. Across all Czechs, financial anxiety was cited as the most common reason for feeling depressed or anxious.

KEY STATS:

66% of Czechs said they had felt depressed or anxious at least occasionally in the past 12 months. Among those, 48% cited financial anxieties as one of the reasons.

FULL DATA:

What are the reasons for you having felt depressed or anxious? Tick all that apply... (In %)



9. More than a third of Czechs had energy renovation plans that have been delayed or dropped. Costs hold people back from renovating - but they are not the only barrier mentioned

KEY STATS:

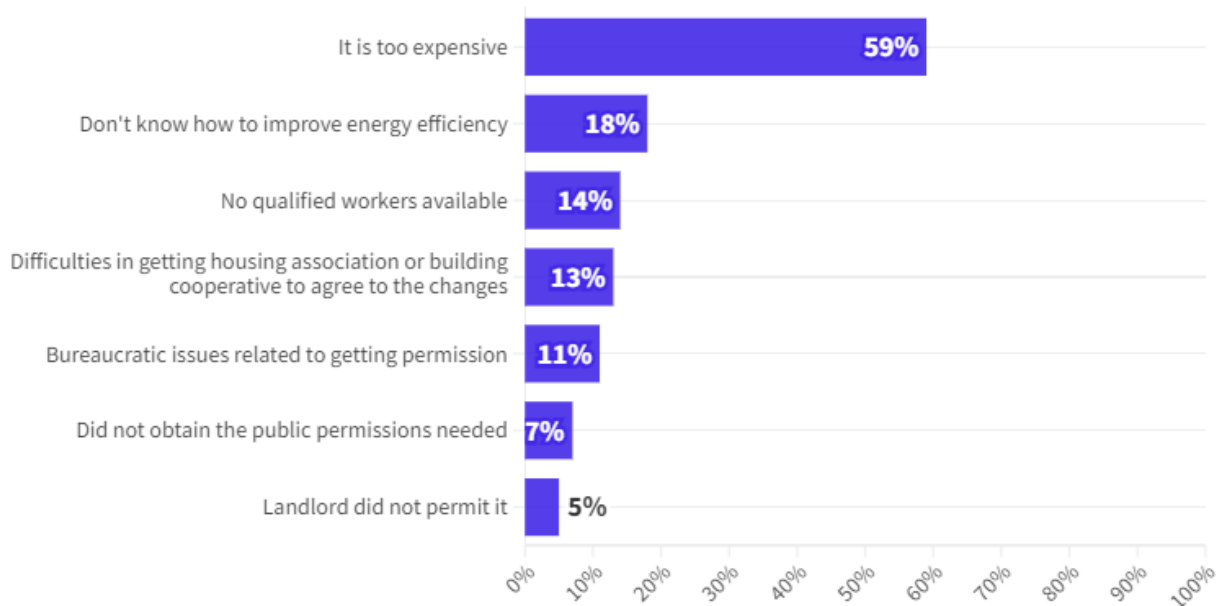
26% of Czechs had plans to improve the energy efficiency of their home but delayed them, and 13% have dropped them.

The top reason for delaying or dropping renovation plans was that it is too expensive (59%).

But for another 56%, it was issues like bureaucratic issues, not obtaining the right permissions, a lack of qualified workers, or a lack of knowledge.

FULL DATA:

What is your main reason for delaying or dropping the plans to improve the energy efficiency of your home? Tick all that apply... (In %)



10. Czechs are significantly more supportive than unsupportive of a requirement for energy efficiency improvements

KEY STATS:

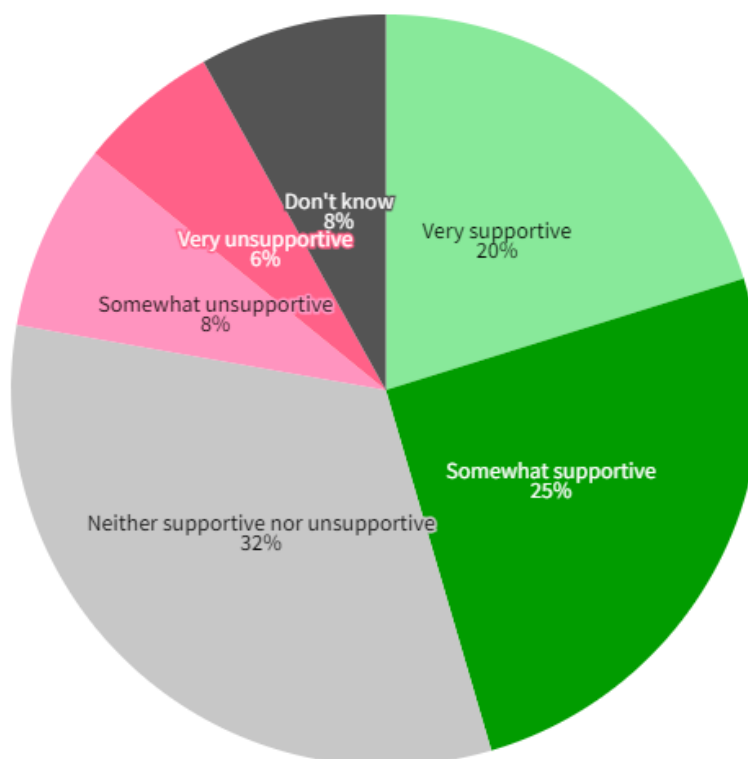
45% of the population are either very or somewhat supportive of a requirement for energy efficiency improvements for the least energy-performing buildings of the country.

Only 14% are somewhat or very unsupportive.

40% are either in the middle or don't know.

FULL DATA

To what degree would you be supportive, or not, of a requirement for energy efficiency improvements for the least energy performing buildings of the country?



Background information offered to respondents: *Buildings that are energy efficient have lower energy consumption, which means cheaper energy bills. Renovating buildings will make existing homes more energy-efficient.*

Renovated buildings are usually safer to live in and have a lower carbon footprint.

Renovating a building to be more energy efficient can be done in many different ways for example, installing better insulation in the walls or loft, draught-proofing doors and windows, or installing more energy-efficient heating appliances, such as heat pumps.

Along with EU leaders, the government of your country is currently considering implementing higher minimum energy performance standards. This means that the buildings that are the very worst for energy efficiency, would need to be renovated. This would include both public and private buildings.

11. Better resistance to extreme temperatures is the most cited advantage of energy efficiency improvements. Reduced emissions and reduced energy poverty are also highlighted by many.

KEY STATS:

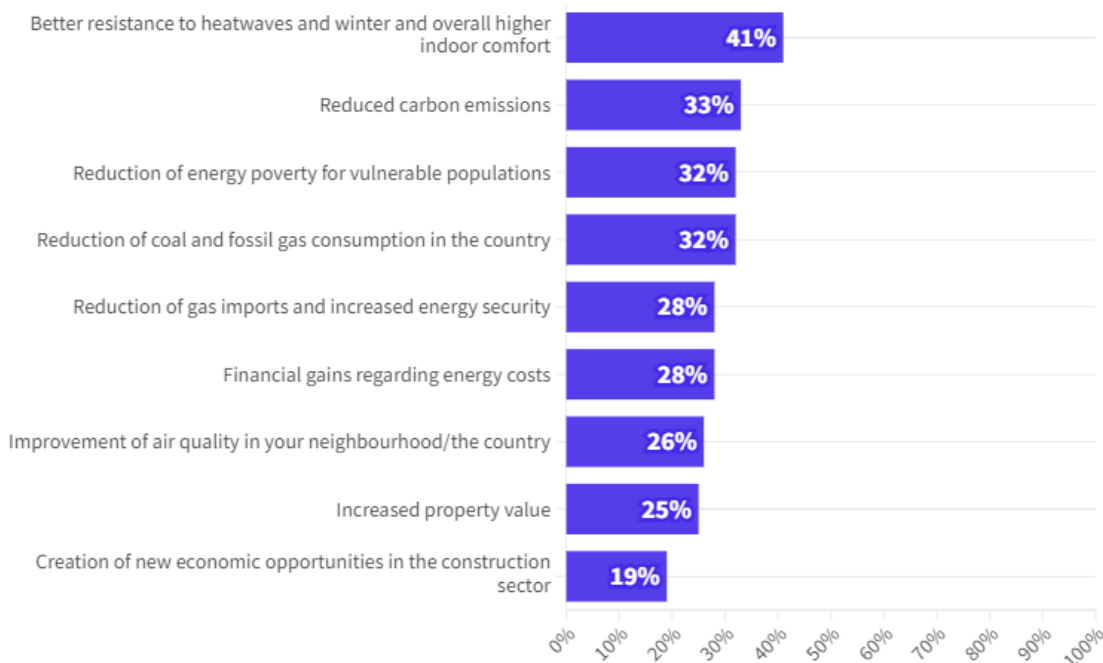
41% of Czechs said they believe that energy efficiency improvements would improve resistance to extreme temperatures.

33% of Czechs said that an advantage of energy efficiency improvements would be reduced carbon emissions.

32% of Czechs said they believe that an advantage of energy efficiency improvements would be reduced energy poverty for vulnerable populations.

FULL DATA:

Which of these are advantages to introducing a requirement for energy efficiency improvements? Tick all that apply... (In %)



12. A majority of Czechs are neither supportive nor unsupportive of measures in Brussels to collectively phase out gas boilers.

KEY STATS:

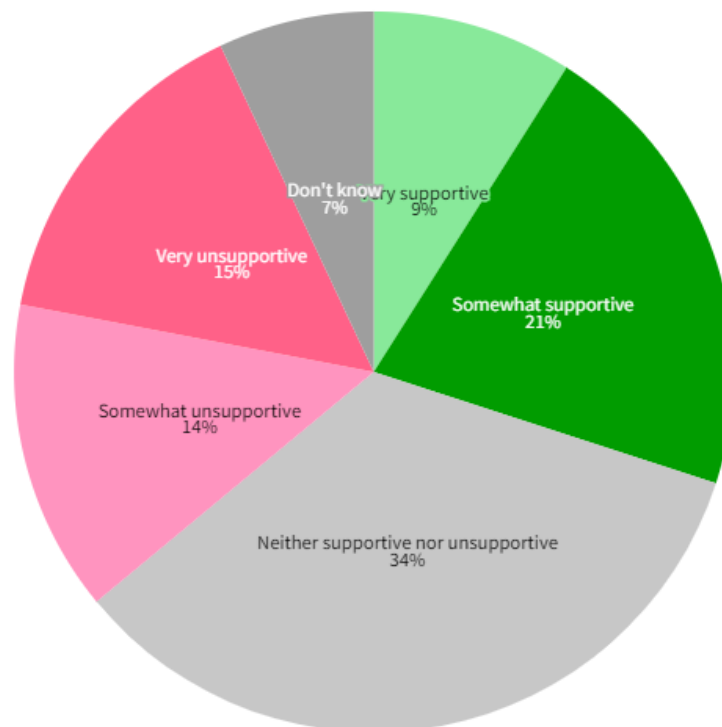
30% of Czechs said they would be somewhat or very supportive of measures from the European Union to collectively phase out gas boilers.

29% of Czechs said they would be somewhat or very unsupportive of measures from the European Union to collectively phase out gas boilers.

34% of Czechs are neither supportive nor unsupportive.

FULL DATA:

To what degree would you be supportive, or not, of the EU collectively phasing out gas boilers from 2029 in favour of alternatives running on renewable energy?



Background information offered to respondents: Policymakers are currently discussing a collective phase-out of gas boilers on the European market, which would begin in 2029. Boilers that need replacement would gradually be replaced by alternatives running on renewable energy. The implementation of this measure is expected to reduce the energy bills of households in the long term, wean off imports of gas from abroad, and ensure lower carbon emissions from buildings in the future.

13. Czechs would like the government to support them in the long term to bring down their energy bills, more than short term subsidies. Tenants are especially focused on the long term.

KEY STATS:

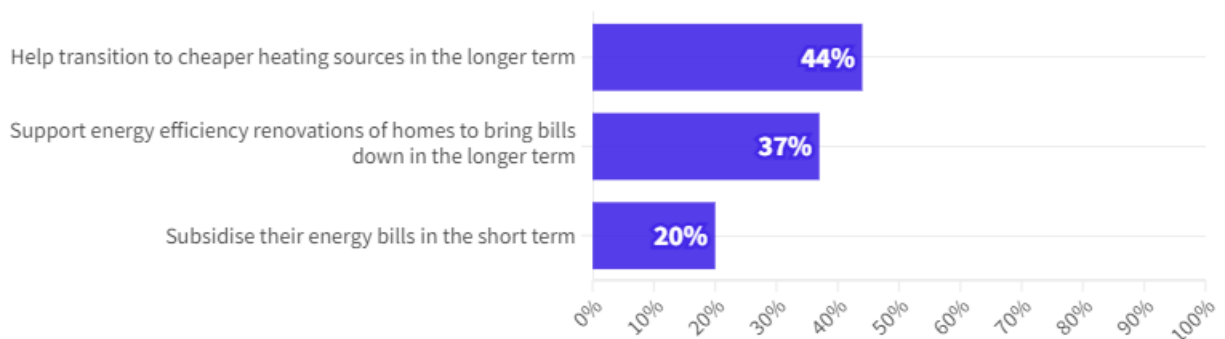
37% of Czechs would like the government to support energy-efficiency renovations of homes to bring bills down in the longer term.

44% of Czechs would like the government to help transition to cheaper heating sources in the longer term.

20% of Czechs would like the government to subsidise their energy bills in the short term.

FULL DATA:

In what ways would you like the government to support people with high energy bills? Tick all that apply... (In %)



DEMOGRAPHIC NUANCES:

- 39% of **tenants in private housing** would like the government to support energy efficiency renovations of homes to bring down bills in the longer term. It reaches 43% for **tenants in social housing**.
- On the contrary, only 18% of **tenants in private housing** and 18% of **tenants in social housing** would like the government to subsidise their energy bills in the short term.



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