

DESNZ Public Attitudes Tracker: Technical Overview Winter 2023, UK

07 March 2024

Official Statistics

This report covers general information about the Public Attitudes Tracker (PAT) survey completed in Winter 2023. More detailed technical information on the survey series, including details of the new data collection methodology adopted in Autumn 2021 and previous methodologies, is available in the annual [Technical Report](#).

Introduction

In February 2023, the Department for Energy Security and Net Zero (DESNZ) was created, focusing on the energy and net zero portfolio from the former Department for Business, Energy and Industrial Strategy (BEIS). At the same time, the BEIS Public Attitudes Tracker (PAT) was renamed the DESNZ Public Attitudes Tracker, focusing on measuring public awareness, attitudes and behaviours relating to the policies of DESNZ, such as energy and climate change. Results from questions on other topics previously within the remit of BEIS, such as artificial intelligence, consumer issues and workers' rights, are still available in the relevant topic reports published with earlier waves of the BEIS PAT.

This report presents a technical overview of the Winter 2023 survey wave conducted by DESNZ. The results from this wave are based on a representative sample of 3,743 adults aged 16 or over in the UK. Data collection ran from 7 November 2023 to 11 December 2023.

This is the ninth wave in a series of surveys which began in Autumn 2021. Between Autumn 2021 and Summer 2023, surveys were conducted every quarter, although there was no Autumn 2023 wave since this mainly included policy areas covered by the former BEIS which are not within the remit of DESNZ. Earlier waves have been conducted as follows:

- Autumn 2021 (15 September to 17 October 2021)
- Winter 2021 (24 November to 22 December 2021)
- Spring 2022 (24 February to 24 March 2022)
- Summer 2022 (9 June to 7 July 2022)
- Autumn 2022 (1 September to 3 October 2022)
- Winter 2022 (17 November to 19 December 2022)
- Spring 2023 (9 March to 6 April 2023)
- Summer 2023 (9 June to 10 July 2023)

Before Autumn 2021, previous tracker surveys had been conducted covering many of the same topics. In Autumn 2021 the BEIS PAT moved to a 'push-to-web' survey method referred to as Address Based Online Surveying (ABOS). The Winter 2023 wave of the PAT is the ninth wave of the new time series following this change in methodology. Significant changes affecting both survey sample and mode mean that the results from this wave are not directly comparable with results collected via surveys conducted using the previous methodology. Where questions have been included in more than one wave under the new methodology, comparisons between waves are made.

A summary of the methodology is provided below. Full details of the methodology are provided in the annual [Technical Report](#). The most recent version was published alongside the Summer 2023 results.

Winter 2023 survey

The Winter 2023 questionnaire covered the following topics:

- Net Zero
- Climate change
- Renewables
- Nuclear energy
- Heat in the home
- Energy performance certificates (EPCs)
- Cooking appliances
- Low carbon heating systems
- Energy tariffs
- Electric vehicles
- Smart meters

Interpretation of findings and further resources

In this publication, differences between groups are only reported where they are statistically significant at the 95% confidence interval level.

‘Awareness’ encompasses all respondents who had heard of a particular concept or technology, including those who know nothing (but have heard of the concept or technology), those who know just a little, a fair amount or a lot. ‘Knowledge’ is confined to those who said that they know just a little, a fair amount or a lot.

Alongside this Technical Overview report, we have also provided: individual topic reports covering results from the survey grouped by theme; a set of tables showing the time series for questions asked on multiple occasions since Autumn 2021; a set of tables containing crosstabulations for headline questions by gender, age, highest qualification and geography, and the online and paper versions of the questionnaire.

Introduction to the Address Based Online Surveying (ABOS) data collection model

ABOS is a type of 'push-to-web' survey method.

The basic ABOS design is simple: a **stratified random sample of addresses** is drawn from the Royal Mail's postcode address file and an invitation letter is sent to each one, containing username(s) and password(s) plus the URL of the survey website. Sampled individuals can log on using this information and complete the survey as they would any other web survey. Once the questionnaire is complete, the specific username and password cannot be used again, ensuring data confidentiality from others with access to this information.

It is usual for at least one reminder to be sent to each sampled address and it is also usual for an **alternative mode** (usually a paper questionnaire) to be offered to those who need it or would prefer it. It is typical for this alternative mode to be available only 'on request' at first. However, after nonresponse to one or more web survey reminders, this alternative mode may be given more prominence.

Paper questionnaires ensure coverage of the offline population and are especially effective with sub-populations that respond to online surveys at lower-than-average levels. However, paper questionnaires have measurement limitations that constrain the design of the online questionnaire and add considerably to overall cost. For the DESNZ PAT, **paper questionnaires are used in a limited and targeted way**, to optimise rather than maximise response.

Winter 2023 sample design

The sampling was designed to yield a respondent sample that was representative with respect to geography, neighbourhood deprivation level, and age group.

Figure 1 shows the (initially issued) sample structure with respect to the major strata. Higher sampling fractions were applied to the two least populous International Territorial Level (ITL)¹ (NE England and Wales) so that the expected number of completed questionnaires was at least 220 in each one.

Figure 1: Addresses issued by area deprivation and household age structure: Winter 2023

Expected household age structure	Most deprived	2 nd	3 rd	4 th	Least deprived
All <=35	1448	1235	862	558	419
Other	4416	3198	2732	2291	1856
All >=65	821	761	706	661	593

¹ <https://www.ons.gov.uk/aboutus/whatwedo/programmesandprojects/europeancitystatistics>

Winter 2023 Fieldwork

The data collection took place from 07 November 2023 to 11 December 2023.

All resident adults aged 16+ were invited to complete the survey, although for practical reasons the number of logins was limited to up to four adults per household, with more available on request. The number of logins was based on the estimated number of adults living in the household, based on external data. In Winter 2023, the mean number of logins per address was 2.8.

To ensure the survey was accessible to the offline population, some mailings included paper questionnaire alternatives (based on addresses where external data indicated that all residents were aged 65 or over). Paper questionnaires were also available on request.

- 22,557 invites were sent out initially and 19,410 reminders were sent in the second week of fieldwork.
- 266 cases were identified as invalid based on quality assurance checks and were removed from the dataset, representing 6.6% of cases.
- The achieved sample size (after data cleaning) was 3,743 individuals, of which 3,081 were completed online and 662 (18%) on paper.
- The household response rate was 13.0% and the estimated individual response rate was 9.5%.
- The average (median) time to complete the survey online was 15 minutes and 49 seconds.

Weighting was used to compensate for differences in both sampling probability and response probability.

Changes to the survey in Winter 2023

A list of changes to the Winter 2023 questionnaire in comparison to previous versions of these questions is provided below. This is largely the addition of questions on new topics but also includes some changes to existing questions:

- A new set of questions was added on cooking appliances:
 - HOBTYPE, 'What type of hob do you have in your home?'
 - OVENTYPE, 'And what type of oven do you have in your home?'
 - HOBREPLACE, 'Thinking about the next time you need to buy or replace a hob, which of these options would you be most likely to choose?'
 - HOBFACTORS, 'If you were choosing a new hob, what would be the most important factors in your decision? Please select up to three factors'
 - OVENREPLACE, 'Now thinking about the next time you need to buy or replace your oven, which of these options would you be most likely to choose?'
 - OVENFACTORS, 'If you were choosing a new oven, what would be the most important factors in your decision? Please select up to three factors'
- A new question was asked about how smart meters are used to monitor energy use:
 - SMARTMETD, 'Which, if any, of the following do you personally use to monitor your energy use?'
- A revised set of questions was introduced about time of use energy tariffs. These replaced the questions used in Spring 2022 on 'time of use' tariffs, which included separate questions for dual-rate tariffs (e.g. day and night) and agile tariffs (e.g. changing every half hour).

DESNZ Public Attitudes Tracker (Winter 2023, UK)

- TOUTAWARENEW, 'Before today, how much, if anything, did you know about these electricity tariffs with different rates depending on time of use?'
 - TOUTLIKELY, 'Think about a tariff where pricing varies at different times (for example daytime, night-time and peak rates). If this was available to you, how likely is it that your household would switch to it?'
 - WHYNOSMART, 'You said you would be unlikely to switch to a tariff with multiple rates for different time periods. Why is this?'
- Solar thermal panels were removed from the list of low carbon heating systems listed at LCHEATKNOW1-8 and LCHEATINSTALLA-E.
- An additional response option was added to the list of reasons why they would be unlikely to install low carbon heating systems at LCNOWHY:
 - 'Concerns about performance/efficiency'
- Response options were removed for 'solid fuel (open fire/enclosed stove) – coal', and 'LPG -fixed room heaters' at HEATMAIN (the main way respondents heat their home), with these covered by the 'other type of heating' option in Winter 2023.
- An additional response option was added to the list of reasons for not paying attention to the amount of heat used in the home at HEATNOATTWAY:
 - 'I have made energy efficiency improvements so I don't need to think about this as much now'
- Changes were made to the list of trusted sources of advice on which heating system to install at home at TRUSTHEAT to reflect changes to websites since Winter 2022:
 - 'Energy advice websites or helplines such as 'Find Ways to Save Energy in Your Home' replaced: 'Simple Energy Advice' website or similar energy advice website
 - 'Any other Gov.uk information source' replaced 'Gov.uk'
- New questions were added on sources of information relating to actions to help reduce climate change:
 - CCHEARD, 'Looking at the following sources, from which, if any, of these do you hear or read about actions you can take to tackle climate change? This might include making choices about travel, product purchases, or how to save energy at home.'
 - CCINFO, 'Which, if any, of the following would you like to have more information on?'

Further information

Future updates to these statistics

Results from the Public Attitudes Tracker were published quarterly. However, following the creation of DESNZ, the Autumn 2023 wave was dropped as it mainly included policy areas covered by the former BEIS and which are not within the remit of DESNZ; therefore, resulting in the frequency of the survey shifting from quarterly to triannually. The next release will cover Spring 2024 and is scheduled to be published in July 2024. Note that not all tracker questions are included in each wave.

Revisions policy

The [Department's statistical revisions policy](#) sets out the revisions policy for these statistics, which has been developed in accordance with the UK Statistics Authority [Code of Practice for Statistics](#).

Related Statistics

There are various other surveys which seek the general public's opinion on topics related to those covered by the DESNZ Public Attitudes Tracker. These include:

[Public Attitudes to Science](#)

A collection of studies looking at the UK public's attitudes to science, scientists and science policy.

[National Travel Attitudes Study \(NTAS\)](#)

The Department for Transport publishes a wide range of reports on the public's attitude to various modes of transport.

[Transport and Transport Technology: Public Attitudes Tracker](#)

The Department for Transport also publishes an attitudes tracker to monitor trends in public attitudes to and awareness of transport technologies in England.

[The English Housing Survey](#)

The English Housing Survey is a continuous national survey commissioned by the Department for Levelling up, Housing and Communities (formerly Ministry of Housing, Communities and Local Government). It collects information about people's housing circumstances and the condition and energy efficiency of housing in England.

A wealth of energy statistics, which provide context for the attitude data collected by the PAT are available on the [Statistics at DESNZ](#) website.

Uses of these statistics

These statistics were commissioned by DESNZ to guide departmental policy, and are also used by other government departments, academics, ministers and the general public. Some examples on the uses of previous waves of the PAT include:

- Monitoring attitudes towards energy sources such as fracking and nuclear by policy makers, the media and local groups to understand how this is changing over time and the reasons why people support or oppose it.
- Understanding public awareness of key DESNZ policies such as the concept of Net Zero.
- Monitoring public attitudes to climate change and government policies associated with this and understanding how concern varies between demographic groups.
- Understanding public acceptability of different renewable energy sources which contribute to the Government's aim to reduce the dependence on fossil fuels.

User engagement

Users are encouraged to provide comments and feedback on how these statistics are used and how well they meet user needs. Comments on any issues relating to this statistical release are welcomed and should be sent to: PAT@energysecurity.gov.uk

The Department's statement on [statistical public engagement and data standards](#) sets out the department's commitments on public engagement and data standards as outlined by the [Code of Practice for Statistics](#).

Pre-release access to statistics

Some ministers and officials receive access to these statistics up to 24 hours before release. Details of the arrangements for doing this and a list of the ministers and officials that receive pre-release access to these statistics can be found in the Department's [statement of compliance](#) with the Pre-Release Access to Official Statistics Order 2008.

Contact

- Responsible statistician: Raphael Nahmany
- Email: PAT@energysecurity.gov.uk
- Media enquiries: 020 7215 1000; newsdesk@energysecurity.gov.uk



© Crown copyright 2024

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit nationalarchives.gov.uk/doc/open-government-licence/version/3 or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: psi@nationalarchives.gsi.gov.uk.

Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.

This publication is available from: <https://www.gov.uk/government/collections/public-attitudes-tracking-survey>

If you need a version of this document in a more accessible format, please email PAT@energysecurity.gov.uk. Please tell us what format you need. It will help us if you say what assistive technology you use.